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The Handbook of Language Variation and Change

Second Edition

Edited by

J.K. Chambers and Natalie Schilling
For William Labov

whose work is referred to in every chapter and
whose ideas imbue every page
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Preface to the Second Edition

Publication of the first edition of The Handbook of Language Variation and Change in 2002 obviously filled a gap in the field. It was widely adopted as a learning, teaching, and reference tool for researchers and students in sociolinguistics, and it was also well used by scholars in numerous related fields seeking authoritative overviews of central topics and methods on language variation and change. The publication of this second edition, slightly more than a decade later, is necessitated by the continuing vigor of the field. In order to ensure that the Handbook remains the authoritative source on this vital approach to language study, we prepared a new edition that reflects the state-of-the-art in sociolinguistic studies.

Our goal remains exactly the same: we see the book as a convenient, hand-held repository of the essential knowledge about the study of language variation and change. We have maintained the core structure, the rationale and the focus that made the first edition so successful. The contributors, now as then, are leading researchers in their fields. About three-quarters of the original chapters have been retained but have been updated to reflect developments and new directions in each topic area. The extent of updating is suggested, perhaps, by the fact that two of the revised chapters have undergone title changes to mark new emphases, and three of the original authors have conscripted co-authors to work with them on new developments.

Seven chapters are entirely new, an appropriate reflection of the continuing vitality of the discipline in the intervening decade. Inevitably, some chapters from the first edition were discontinued in order to accommodate the new directions within manageable space limits. Those discontinued chapters remain valid, incisive treatments of their topics, and we expect that many of them will continue to be cited and referenced in their special areas for years to come.

We have invited the authors of the chapters to discuss the ideas – hypotheses, axioms, premises, probabilities – that drive their branch of the discipline, and to illustrate them with empirical studies, their own or others, that not only demonstrate their applications but also their shortcomings and strengths. We expect that these
Preface to the Second Edition

areas will continue to attract ingenious researchers and engage curious students and other scholars.

After the “informal epistemology,” which immediately follows, the book is organized in eight broad subject areas beginning with data collection (Part I). It proceeds through methods for evaluating data (Part II) and categorizing it (Part III). From there, it moves into the main spheres of social influence including the complexities of time (Part IV), social distance and difference (Part V), and communal interactions, individual identities, and their interrelations (Part VI). The pervasive effect of mobility, both geographical and social, has implications for the social uses of language in diverse contact situations (Part VII). We end the book with Walt Wolfram’s forward-looking consideration of the ethical and social roles of sociolinguists in the communities they work in (Part VIII), a topic of increasing engagement among responsible scholars.

The contributors of the chapters make a distinguished international roster. Our invitations went to scholars with recognized expertise, either established or potential, with no thought to anything but their insightfulness and mastery of their research areas. As in the first edition, the final reckoning gives an accidental profile of the culture of sociolinguistics: 26 chapters by 30 scholars, 14 women and 16 men, from six nations. These numbers are all the more striking in the historical context. From its inception in a few rather isolated studies on the Atlantic seaboard of the United States, variationist sociolinguistics has spread globally in a few decades and established its stature inexorably among the language sciences. It is our hope that this new edition of The Handbook of Language Variation and Change will aid and abet its spread, as the first edition did, and deepen both the understanding of its goals and the appreciation of its results.

In light of the subject matter of the book, the publishers have acknowledged the diverse backgrounds of the contributors by retaining the mixture of US and UK style conventions across their various chapters.

J.K. Chambers and Natalie Schilling
Every effort has been made to trace copyright holders and to obtain their permission for the use of copyright material. The publisher apologizes for any errors or omissions in the text, and would be grateful if notified of any corrections that should be incorporated in reprints or future editions of this book.
Societies can obviously exist without language, as witness the social organizations of carpenter ants, honey bees and great apes. But languages cannot exist without societies. Language is quintessentially social, and throughout recorded history, normal human beings have shown unbounded capabilities for social intercourse, conversational interaction, repartee, self-expression, and tale-telling both real and imagined, all governed by intricate sets of conventions normally beneath consciousness.

Before language existed, our hominoid ancestors organized bands for food-gathering and habitats for sheltering their young; and probably, by analogy with the great apes, not much more. In the absence of language, finding daily sustenance and preventing yourself and your young from becoming sustenance for others are pretty much full-time activities. Since survival and propagation can be achieved in the absence of language, it was obviously not survival and propagation that called language into being. Rather, language is the tool for virtually every human aspiration beyond plain survival and propagation.

Sociolinguistics is the study of the social uses of language, in its many guises. In this chapter, I sketch an informal epistemology of sociolinguistics by outlining its historic development as a linguistic discipline (in Section 1), the persistence of social evaluation in language matters (in Section 2), the place of sociolinguistics among the linguistic sciences (in Section 3), and its relation to communicative competence (in Section 4) and to communicative intelligence (in Section 5).

1 Sociolinguistics as a Discipline

Studying the social uses of language proceeds mainly by observing language use in natural social settings and categorizing the linguistic variants according to their
social distribution. The most productive studies have emanated from determining the social evaluation of linguistic variants. These are also the areas most susceptible to scientific methods such as hypothesis-formulation, logical inference, and statistical testing.

Notwithstanding the pervasive effects of the social milieu on the accents and dialects which are its medium, the study of socially conditioned variation in language is relatively recent. Variationist sociolinguistics became an internationally recognized branch of the linguistic sciences in the 1970s. Its effective beginnings as a movement can be quite specifically traced to the early 1960s, when William Labov presented the first sociolinguistic research report at the annual meeting of the Linguistic Society of America (December 1962) and published “The social motivation of a sound change” (Labov 1963). Those events were not the first public airings of socially relevant linguistic studies, as we shall see, but they were far and away the most influential. Unlike the ones that came before, Labov’s initiatives inaugurated a discipline. One reason for their success, though probably not the most important one, was the relative maturity of the sociolinguistic framework that Labov had devised. His analyses introduced three striking innovations into the prevailing linguistic culture: (i) correlating linguistic variants with class, age, sex, and other social attributes, (ii) incorporating style as an independent variable, and (iii) apprehending the progress of linguistic changes in apparent time. All three are hallmarks of the sociolinguistic enterprise to this day.

Labov’s success was partly attributable to the simple fact that the time was ripe. Ancillary investigations into the social uses of language, including studies of discourse, pragmatics, interaction rituals, and subjective evaluation tests, sprang into being around the same time.

Labov recalls feeling considerable trepidation as he prepared to present his results in public for the first time. “In those days . . . , you practically addressed the entire profession when you advanced to the podium,” he recalled (in 1997). “I had imagined a long and bitter struggle for my ideas, where I would push the social conditioning of language against hopeless odds, and finally win belated recognition as my hair was turning gray. But my romantic imagination was cut short. They ate it up!” The easy reception may have obscured the revolutionary turn that sociolinguistics represents in the history of language study.

Advances in the nascent discipline came quickly. Labov’s methods gained breadth and depth with his own work on the social stratification of English in New York City (Labov 1966) and in a large-scale project based at Georgetown University on the inner-city African-American community in Detroit (Shuy, Wolfram and Riley 1968). The theoretical core of the new discipline was bolstered by a perspicacious statement on its empirical foundations (Weinreich, Labov and Herzog 1968), which stands as the manifesto for the enterprise. Sociolinguistics shook off any hints of anglocentric provincialism with studies of Montreal French (Sankoff and Sankoff 1973) and Panama City Spanish (Cedergren 1973). It also crossed national boundaries with studies in Norwich, England (Trudgill 1974), Edinburgh, Scotland (Reid 1978) and Belfast, Northern Ireland (Milroy and Milroy 1978). Word about these and other developments spread rapidly, months
and sometimes years before the official publications, through conference presenta-
tions, dissertations and working papers.

Enthusiasm for the new discipline was undeniably fanned by the revolutionary
zeal that went along with overturning some old pieties. Linguistic heterogeneity
had been banned in linguistic orthodoxies from Saussure to Chomsky, and so were
its correlates such as social attributes, contextual style and apparent-time. Now
they were seen as liberating. “The key to a rational conception of language change
– indeed of language itself,” Weinreich, Labov and Herzog (1968: 100) declared,
“is the possibility of describing orderly differentiation in a language serving a
community.”

Before sociolinguistics gained a foothold in the second half of the twentieth
century, there had been a few maverick precursors. The term “sociolinguistics”
had been coined a decade before Labov’s inaugural presentation by one Haver C.
Currie in 1952, in a programmatic commentary on the notion that “social functions
and significations of speech factors offer a prolific field for research.” With bap-
tismal zeal, Currie (1952: 28) proclaimed, “This field is here designated socio-
linguistics.” Nothing came of Currie’s suggestion, though the name stuck. Years
later, Labov expressed misgivings about the word itself. In 1972 (xiii), he wrote:
“I have resisted the term sociolinguistics for many years, since it implies that there
can be a successful linguistic theory or practice which is not social.” By then,
however, it was too late. Non-social linguistics did not disappear, and the term
sociolinguistics, like psycholinguistics, neurolinguistics and other academic deriv-
atives, serves its purpose.

Dialectology is sometimes viewed as a precursor of sociolinguistics but the
relationship between them is oblique rather than direct. Systematic dialectology
goes back to at least 1876 and thus antedates modern linguistics as well as socio-
linguistics. Both dialectology and sociolinguistics are in the broadest sense dialec-
tologies (studies of language variation). However, traditional dialectology
embraced the strictures of structural linguistics, concentrating on regional speech
patterns of mainly rural, old-fashioned speakers elicited one item at a time (Cham-
bers and Trudgill 1998: 13–31). In terms of intellectual history, sociolinguistics can
be viewed as a refocusing of traditional dialectology in response to cataclysmic
 technological and social changes that required (and facilitated) freer data-gathering
methods using larger and more representative population samples (Chambers
2002). In its goals as well as it methods, it is a radical departure.

There is now a branch of sociolinguistic dialectology in which region is one
independent variable among the other social and stylistic variables (as in the
chapter by Britain in this volume). It is much more beholden to sociolinguistics
than to dialectology.

Traditional dialect studies with genuine sociolinguistic bearings are very rare.
The exception that proves the rule is Louis Gauchat’s study of vernaculars in the
Swiss village Charmey (1905 [2008]). Gauchat (1866–1942), professor of philology
at University of Zurich, visited the alpine village on several occasions and became
acutely aware of social stratification in the local dialect. He was also acutely aware
that this variability ran counter to the prevailing wisdom at the time, which held
that the dialect of an isolated village with a virtually immobile population should be homogeneous. “If unity can indeed exist in the speech of a village one would expect to find it in Charmey,” Gauchat said (1905 [2008: 228]). Instead, he found “variation in the pronunciation, morphology, syntax, and lexicon” (236). No doubt conscious of his renegade mission (though he never came right out and said so), Gauchat sets down the variation in an analysis rich in insight, thorough in detail and sound in argumentation. He emerges, in hindsight, as the patriarch of variationist linguistics (Chambers 2008). Some six decades before Labov, he correlated linguistic variants with sex, age, and social class, recognized style as an independent variable, and apprehended changes in progress with apparent-time comparisons. Gauchat anticipated many of the postulates of Weinreich et al. (1968) as well as sociolinguistic methods. “Variation in pronunciation among members of a single speech community has not been studied systematically,” he says (1905 [2008: 227]), “despite its potential contribution to our understanding of language change.” He hoped his study might foment a sociolinguistic revolution, although he was too genteel to put it that way. What he did say was, “My reason . . . for making public these opinions I have formed on the unity of speech in a single community is to encourage dialectologists to undertake similar research in other places.” It did not happen. Gauchat’s work in Charmey was regarded as eccentric, and no one, not even Gauchat himself in the 30 years of his career that remained, saw fit to follow his lead.

Gauchat was clearly too far ahead of his time. The emergence of the international movement for socially perspicacious linguistic studies was in abeyance for six more decades.

2 Language as a Social Phenomenon

The late-blooming history of sociolinguistics appears paradoxical in view of the obvious social role of language. All societies tolerate and even foster social judgments of language use, and typically integrate them into the communal ethos, most conspicuously in developed nations where they become part of the institutional mandate of schools, government offices and professional societies. So persistent and pervasive are the social judgments of language use that they must be embedded in human nature, perhaps as an adjunct of human communicative competence (discussed below). They have been documented from the beginning of the written record. Thus Sirach, the Old Testament moralist, declared: “When a sieve is shaken, the rubbish is left behind; so too the defects of a person appear in speech. As the kiln tests the work of the potter, so the test of a person is conversation” (Ecclesiasticus 27: 4–5). And Cicero, in 55 BC, enjoins his readers to “learn to avoid not only the asperity of rustic pronunciation but the strangeness of outlandish [that is, regional] pronunciation” (De Oratore III, 12).

Value judgments like these, both ancient and modern, have purely social motivation. Linguistically, they are vacuous. This is readily demonstrated by comparing any pair of linguistic variants, such as these grammatical variants:
We don't expect any help from the government.
We don’t expect no help from the government.

The two sentences differ in that the second one includes a negative marker on the object noun phrase (*no help*) as well as on the verb phrase (*don’t expect*), whereas the first one avoids the double negative by replacing the noun negator with *any*. Notwithstanding this difference, the two sentences convey exactly the same grammatical meaning and everyone who speaks English with even minimal competence recognizes their semantic identity.

The sentences do, however, convey very different social meanings as a direct consequence of the grammatical difference. That is, they carry sociolinguistic significance. The first, with its standard forms, is emblematic of middle-class or educated speech, while the second is emblematic of working-class or uneducated speech. These differences will also be readily recognized by virtually every speaker of the language.

The perceived superiority of the first sentence is obviously not linguistic, since the two sentences convey exactly the same meaning. Nor is it historical, since the second sentence, the nonstandard double negative, was in fact the standard construction until the fifteenth century, when *any*-suppletion came into the grammar as a competing form and ultimately prevailed as the preferred form. However, recognizing that social evaluations of sentences like these are arbitrary and conventional does not mean that they are inconsequential. On the contrary, people whose speech is judged adversely can suffer socially, occupationally and educationally (as discussed by Preston in this volume).

Because social judgments of linguistic forms have such a continuous and intimate relation to the human condition, it would be natural to expect a fairly long history of inquiry into the sources, functions and significations of language in its social context. Instead, as we have seen, it is relatively recent. Perhaps the social role of language was too commonplace to attract serious inquiry, but more likely it is so integral in language as to escape notice. The classical Greeks missed it entirely. Plato and Aristotle concerned themselves with categorizing linguistic forms, that is, with grammar in the sense discussed in the next section. Neither of them noticed linguistic variation of any kind, and their overwhelming influence on Western thought undoubtedly contributed to the antisocial bias of Western linguistic tradition. According to Kiparsky (1979), the Sanskrit grammarian Pāṇini (ca. 600 BC) did recognize systematic variability, which he called *anyatarasyām*, but his distinction was trivialized by his successors as meaning “marginal” or “unacceptable,” for which Pāṇini had actually used different terms. Pāṇini’s followers missed the distinction, and as a result Pāṇini’s insight had no impact on tradition.

The only classical scholar who seems to have been aware of the social side of language is the Roman polymath Varro (116–27 BC), who not only recognized linguistic variation (*anomalia*) but also linked it to vernacular language use (*consuetudo*; see Taylor 1975). Varro observed, among other things, the arbitrary nature of linguistic judgments. “The usage of speech is always shifting its position,” he
wrote (IX, 17; Kent 1938: 453). “This is why words of the better sort (i.e. morpho-
logically regular forms) are wont to become worse, and worse words better; words
spoken wrongly by some of the old-timers are . . . now spoken correctly, and some
that were then spoken according to logical theory are now spoken wrongly.” One
of Varro’s insights – consuetudo loquendi est in motu – could be emblazoned as the
motto of sociolinguistics: “the vernacular is always in motion.” Unfortunately,
Varro’s linguistic treatise, which survives only as a fragment, gave rise to no
school of thought. He remains an isolated figure in the history of language study.

Enlightenment authors presupposed the social basis of language. Locke, in An
Essay Concerning Human Understanding (1690: 101), wrote: “God, having designed
man for a sociable creature, made him not only with an inclination, and under a
necessity to have fellowship with those of his kind, but furnished him also with
language, which was to be the great instrument and common tie of society.” But
the social uses of the instrument, under the presumption that it was God-given,
were apparently deemed to be beyond human scrutiny.

Similarly, twentieth-century linguists dutifully enshrined the social function in
their definitions. “Language is defined as the learned system of arbitrary vocal
symbols by means of which human beings, as members of a society, interact and
communicate in terms of their culture,” according to one introductory textbook
(Trager 1972: 7). Bloomfield (1933: 42) said, “All the so-called higher activities of
man – our specifically human activities – spring from the close adjustment among
individuals which we call society, and this adjustment, in turn, is based upon
language; the speech-community, therefore, is the most important kind of social
group,” Firth (1937: 153) said, “speech is social ‘magic’. You learn your languages
in stages as conditions of gradual incorporation into your social organization. . . .
The approach to speech must consequently be sociological.”

Yet neither Bloomfield nor Firth nor any of the linguists who shared their struc-
turalist concepts directly studied the social uses of language. Until the advent of
sociolinguistics, there were no concentrated attempts at discovering the social
significance of linguistic variation. That may be partly explicable in terms of intel-
lectual history. All the social sciences are relatively young. Psychology, sociology,
economics, and anthropology had their effective beginnings around the turn of
the twentieth century, whereas subject areas less intimately involved with the
human condition such as algebra, physics and zoology have ancient origins.
Sociolinguistics, as the social-science branch of linguistics (along with develop-
mental psycholinguistics), is a newcomer compared to the branch known as theo-
retical linguistics, which descends from venerable studies of grammar, rhetoric,
and philology.

3 Linguistics and Sociolinguistics

In the development of modern linguistics, the shunting aside of the social signifi-
cance of language was neither an oversight nor an accident. Saussure, the founder
of modern linguistics, noted that “speech has both an individual and a social side,
and we cannot conceive of one without the other” (1916: 8). Inconceivable though it may have been for him to separate the individual and the social aspects, Saussure nevertheless advocated the study of the former without the latter. His famous distinction between *langue*, the grammatical system, and *parole*, the social uses of language, came into being expressly to demarcate what he considered the proper domain of linguistic study:

But what is *langue*? It is not to be confused with human speech [*parole*], of which it is only a definite part, though certainly an essential one. It [*parole*] is both a social product of the faculty of speech and a collection of necessary conventions that have been adopted by a social body to permit individuals to exercise that faculty. Taken as a whole, speech is many-sided and heterogeneous; straddling several areas simultaneously – physical, physiological, and psychological – it belongs to both the individual and to society; we cannot put it into any category of human facts, for we cannot discover its unity.

Language [*langue*], on the contrary, is a self-contained whole and a principle of classification. As soon as we give language first place among the facts of speech, we introduce a natural order into a mass that lends itself to no other classification. (1916: 9)

Saussure’s dismissal of a possible science of *parole* seems curmudgeonly, with hindsight, but he was not alone. Before him, Humboldt had made a similar distinction between what he called a formless *ergon* and a well-formed *energeia*. *Ergon* (or *parole*) was “divided up into an infinity as the sole language in one and the same nation,” and *energeia* (or *langue*) was language in the abstract sense, with “these many variants . . . united into one language having a definite character” (1836: 129). After Saussure, Chomsky made a similar distinction between competence, “the speaker-hearer’s knowledge of his language,” and performance, “the actual use of language in concrete situations,” and he went on to say that “observed use of language . . . surely cannot constitute the actual subject matter of linguistics, if this is to be a serious discipline” (1965: 4). With hindsight, Chomsky’s dismissal seems not so much curmudgeonly, like Saussure’s, as myopic.

Humboldt, Saussure, and Chomsky were obviously right in pointing out that speech, *parole*, is heterogeneous, but they have been proven wrong in dismissing heterogeneity as a viable object of study. From the beginning, the challenge facing sociolinguistics, the science of *parole*, has been to arrive at an understanding of language as, in Weinreich, Labov, and Herzog’s phrase, “an object possessing orderly heterogeneity” (1968: 100).

4 **Communicative Competence and the Language Faculty**

Studying language as *langue* (or *energeia* or competence), as distinct from *parole* (or *ergon* or performance), requires abstracting linguistic data from the real-world variability in which it naturally occurs. Grammarians impose a hypothetical filter
on natural language data to make it invariant, discrete, and qualitative. The filter, called the axiom of categoricity (Chambers 2009: 26–28), has been described in numerous ways. Hjelmslev (1961: 5–6) states it this way: “Linguistics must attempt to grasp language, not as a conglomerate of non-linguistic (e.g. physical, physiological, psychological, logical, sociological) phenomena, but as a self-sufficient totality, a structure *sui generis*.” Joos (1950: 701) declared: “We must make our ‘linguistics’ a kind of mathematics within which inconsistency is by definition impossible.”

By contrast, sociolinguists attempt to grasp language as it is used in social situations, which is to say as variant, continuous, and quantitative. *Langue* and *parole* remain useful distinctions today for a reason that Saussure would undoubtedly have found unimaginable, because they now help to define the different objects of inquiry of theoretical linguistics and sociolinguistics. They are separable in theory as natural partitions of the language faculty, or what might plausibly be considered distinct cognitive systems.

Chomsky has put forward the conception of the language faculty as interacting systems conceived, in his words, as “‘mental organs’ analogous to the heart or the visual system or the system of motor coordination and planning” (1980: 39). Theoretical linguists who adopt the axiom of categoricity are primarily interested in discovering the properties of one of those systems of the language faculty, called grammar, conceived as a language-specific bioprogram (to use Bickerton’s incisive term: 1984, 2008: 110–113). The grammar is also known as “I-language, ‘I’ for internal and individual” (Lightfoot 2006: 7), presumably to avoid the ambiguity with “grammar” as a book of rules or language-learner’s manual. The internal grammar is “a person’s language organ, the system” (Lightfoot 2006: 7). It is made up of, in Chomsky’s terms (1980: 55), “a system of ‘computational’ rules and representations.” Attempts at discovering its innate computational properties have led Chomsky and his followers into minute examinations of surface-structure puzzles involving linguistic coreference, scope, and other structural intricacies. They have produced insights into the grammatical processor as “structure-dependent” rather than strictly linear (cf. Hurford 2008: 526) and, in Chomsky’s tenacious but disputed stance, as language-specific, not reducible to other, independently motivated, non-language-processing cognitive components.

The grammar is the module in the language faculty that accounts for the uniquely human attributes of creativity in language production and comprehension, and for the rapidity of language acquisition in infancy. However, it is obviously not autonomous. Linguistic production and comprehension require real-world orientation to express meanings, and the acquisition device requires the stimulus of social interaction to activate learning. Chomsky recognizes the existence of other systems, and he has isolated two of them as follows: “A fuller account of knowledge of language will consider the interactions of grammar and other systems, specifically the system of conceptual structures and pragmatic competence, and perhaps others” (1980: 92). The component that involves real-world orientation Chomsky calls the conceptual system, and the social stimulus
has its source in what Chomsky calls “pragmatic competence” but is generally called communicative competence.

By the conceptual system, Chomsky means “the system of object-reference and also such relations as ‘agent’, ‘goal’, ‘instrument’ and the like; what are sometimes called ‘thematic relations’” (1980: 54). “Object-reference” includes vocabulary items, the “massive inventory of form-to-meaning mappings” (Hurford 2008: 526) which are the most obvious intermediaries between grammar and the world. The conceptual system reveals uniquely human properties most easily discerned in acquisition. Children master fine semantic distinctions of the sort found in verbs such as follow and chase relatively early, certainly long before they can consciously define what they mean. These fine vocabulary distinctions recur in all natural languages. One way of explaining this mastery, Chomsky (1988: 31) says, is by postulating that words “enter into systematic structures based on certain elementary recurrent notions and principles of combination.” More generally, he says, “The rate of vocabulary acquisition is so high at certain stages of life, and the precision and delicacy of the concepts acquired so remarkable, that it seems necessary to conclude that in some manner the conceptual system with which lexical items are connected is already substantially in place” (1980: 139).

Chomsky’s third language module, “pragmatic competence,” pertains to, in his words, “knowledge of conditions and manner of appropriate use, in conformity with various purposes. . . . We might say that pragmatic competence places language in the institutional setting of its use, relating intentions and purposes to the linguistic means at hand” (1980: 224–225). This notion has a familiar ring to sociolinguists. It was influentially described by Hymes as “sociolinguistic competence” or communicative competence, as follows:

Within the social matrix in which [a child] acquires a system of grammar, a child acquires also a system of its use, regarding persons, places, purposes, other modes of communication, etc. – all the components of communicative events, together with attitudes and beliefs regarding them. There also develop patterns of the sequential use of language in conversation, address, standard routines, and the like. In such acquisition resides the child’s sociolinguistic competence (or, more broadly, communicative competence), its ability to participate in its society as not only a speaking, but also a communicating member. (1974: 75)

Hymes adds, “What children so acquire, an integrated theory of sociolinguistic description must be able to describe.”

Like the other organs of the language faculty, communicative competence develops early and rapidly in normal children with little or no tutoring. Since most of the conventions governing communicative events are beneath consciousness, explicit teaching is impossible in any case. Evidence for communicative competence as an entity independent of grammatical competence (and presumably the other organs of the language faculty) can be found, for instance, in pathologies in which people are forced to function with one in the absence of the other.
The independence (or modularity) of communicative competence is revealed in certain neurological disorders in which it is disturbed and disrupted. People suffering from what is called “semantic-pragmatic disorder” tend to interrupt the conversational flow with inappropriate or ill-timed assertions, fail to follow topics, introduce what appear to be digressions or non-sequiturs, and speak out of turn (Mogford-Bevan and Sadler 1991). Typically, their speech is phonologically and grammatically well-formed, and not infrequently their speech is remarkably fluent. Clinical researchers usually rely on standardized tests as diagnostic tools, but people with semantic-pragmatic disorder tend to score within normal ranges because of their grammatical fluency. As a result, descriptions of semantic-pragmatic disorder in the psycholinguistic literature often appear to be cursory and vague.

Recognizing it as a sociolinguistic disorder might persuade clinicians to use sociolinguistic observation and analysis for its description. In any event, what malfunctions in the people who are afflicted with the disorder is their communicative competence. They speak grammatically but they cannot carry a conversation. Just as myxedema proves the existence of the thyroid gland in the endocrine system (if proof were needed), so semantic-pragmatic disorders prove the existence of communicative competence as an autonomous module in the language faculty.

5 Interdependence of Language and Communication

Though communicative competence was admitted fairly late into the Chomskyan conception, it has taken on an increasingly important role in conceptualizations of the language faculty. As Brooks and Ragin (2008: 514) point out, “Language is not merely the product of a language-ready brain; it is a cultural product of a community of practitioners.”

Language and its social context are inseparable, but for Chomsky it does not follow that they are interdependent. “It is true, a virtual tautology, that the study of communication takes into account social context,” he says (2011: 266). “It is also uncontroversial that the study of the mechanisms that we put to use [in grammar] typically ignores social context, and quite rightly so.” Communication, in Chomsky’s schema, is the “externalization by the SM [sensory-motor] system” and, in his view, it “appears to be a secondary property of language” (2011: 275). The language faculty developed many millennia after the sensory-motor system, he claims, and “language use is only one of many forms of communication” (2011: 275). In Chomsky’s view, language use seems to be no more important in communication than are gestures, facial expressions, and eye-gaze cues (assuming he would include these sensory-motor reflexes among the “many forms of communication”), and in his conception none of these impinges upon or affects in any way the innate, unalterable language faculty.
Alternative conceptions suggest that he is wrong on both counts. The growing consensus finds grounds for interdependence of grammar and communication. Primate-like sensory-motor systems undeniably pre-dated language, but their uniquely human adaptation to accommodate speech must have occurred more or less simultaneously with the development of the language faculty. Evolution of grammatical competence devoid of communicative competence is inconceivable.

Chomsky’s insistence on autonomy rests largely on claims about the poverty of stimulus – claims that primary linguistic data are not rich enough for children to learn grammar, and therefore require “information that is available to children independently of experience, represented in some fashion in the genetic material” (Lightfoot 2006: 9). Arguments for the poverty of stimulus are largely theoretical rather than empirical, consisting of, for instance, assertions that English speakers never violate the Empty Category Principle (i.e., never utter sentences like How many mechanics did he wonder whether fixed the cars?) even though they never hear sentences that would allow them to infer the existence of the principle (Chomsky 2011: 265). The principle must therefore be genetically encoded in the language faculty.

Because the stimulus plays such a crucial role in the Chomskyan conception, other linguists are trying to come to grips with what exactly the stimulus consists of. The best of these inquiries are amassing evidence that increasingly demystifies Chomsky’s assumptions. Gleitman et al. (2007: 566), for instance, show that “young learners are quite adept at taking visual perspective in object labeling tasks; by the time they’re 18 months old, young children will inspect a speaker’s attentional state upon hearing a novel label.” The astounding proliferation of lexical items by toddlers is thus partly accounted for by their hitherto undiscovered sensitivity to visual cues, and not only for concrete, visible objects. Gleitman et al. say, “Adults may be using this information [gaze cues] rapidly and expediently to arrive at increased communicative alignment, and children may be able to utilize the caretaker’s gaze direction patterns in complex language-learning tasks such as verb learning and syntactic interpretation” (2007: 566).

These results also demonstrate that, contra Chomsky, communication modes seem to be hierarchic, with nonverbal, primitive eye gaze deployed in the service of language development. They also appear to demonstrate interdependence between language and communication. Gleitman et al. (2007: 566) say, “If we are right, the unconscious, rapid, and incremental speech machinery is not wholly or even predominantly conception first and speech only thereafter . . . ; rather, the representations constructed by the visual-attentive and linguistic-conceptual systems may be integrated all along the line.”

None of this impugns in any way the innate human endowment, the “language-ready brain,” that enables rapid acquisition and communicative creativity. Innateness is, as Chomsky has insisted from the start, a truism, a given. What it calls into question is Chomsky’s antisocial conceptualization of it. In many linguistic fields, we are coming to grips with what it is that is essentially human; one of the common thrusts seems to be that it is more sociable than we formerly believed.
The cognitive infrastructure includes "communicative intelligence," described by De Ruiter and Levinson (2008: 518) as a "specific type of intelligence . . . to encode and decode the communicative intentions behind any type of potentially communicative behavior, linguistic, nonverbal or otherwise." Communicative intelligence is intuitively convincing, seemingly part of the common experience of every normal human being, and it is gaining credence in several experimental paradigms. Something like communicative intelligence is presumably implicated in what Gleitman et al. call "increased communicative alignment," that facilitates extrapolation from concrete objects to more abstract language-learning tasks. Galantucci (2005) showed that paired subjects who are under pressure in problem-solving tasks quickly develop communication systems in the hitherto unfamiliar modes at their disposal. Noordzij et al. (2009) show that subjects improvising communication strategies in spontaneous problem-solving tasks show activation in the same well-defined brain region, stimulating "inferential processes" used in language processing but evidently not exclusive to it.

Communicative intelligence is rooted in socialization and is the common cognitive inheritance of all human beings. "Languages . . . are created and filtered by brains that are biologically endowed with communicative intelligence," according to De Ruiter and Levinson (2008: 518). "Together with the vocal/auditory apparatus, this cognitive adaptation for communication makes possible the cultural evolution of spoken languages. . . . Without such specialized structures, the speed and flexibility with which language (in multiple modalities) is used, learned and changed, even within one generation, would not be possible."

The social basis of language was admitted into discussions of the language faculty belatedly, as its study was also admitted belatedly into the discipline of linguistics. In both instances, its importance was quickly recognized. Ignoring it now, in either domain, would be unthinkable.

6 The Sociolinguistic Enterprise

For social interaction to work, both the content of speech and its form must be suited to the speakers and their interlocutors in a particular social context. Sociolinguistic analysis has revealed that our main resources come from modulating linguistic elements in subtle (and clearly unteachable) ways, selecting, so to speak, a particular vowel variant with a certain frequency in a particular situation or a past tense variant or other structural variant in appropriate contexts.

The variants we choose with such casual virtuosity range along a continuum from standard to nonstandard and stigmatized. No linguistic principle can explain the social evaluation attached to any of them. As Varro observed two millennia ago, "words of the better sort," that is, morphologically regular forms, are sometimes the socially stigmatized forms. There is also no linguistic principle behind their distribution in the speech of different social groups in the community, or the relative frequency of their use from one generation to the next.
It is these aspects that underlie the age-old mystery of language change, which is irrepressible and inexorable in spite of the fact that it is, in a common-sense view, both dysfunctional and otiose – dysfunctional in so far as it impedes communication in the long run, and otiose in so far as the changes neither improve nor degrade the language as a communicative medium. The root causes seem to be nothing more profound than social convention.

Variation is socially motivated, and pinpointing the motivations and giving them empirical substance remains perhaps our greatest challenge. We are gaining an understanding of human communicative competence. Every chapter of this book provides evidence, in its own way, of how people respond to social evaluations of their speech, which are always shifting, usually tediously but sometimes rapidly, and almost always tacitly. Consuetudo loquendi est in motu.

The wonder of it is that it attracted virtually no conscious investigation for centuries and indeed millennia – much longer, for instance, than metaphysical speculations about free will or grammatical taxonomies of verb conjugations. It is surely a measure of how deeply ingrained our communicative competence is in all our activities that it could lay hidden so long from consciousness, and a measure as well of how deeply embedded it is in our human nature.

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Part I   Data Collection
While the ultimate goal of sociolinguistic research is to resolve questions of linguistic importance, such as how language change comes about, nothing of that sort can be accomplished without first entering a community in order to collect data which will help provide the basis for any such answers. The central problem in collecting sociolinguistic data has been described by Labov as the Observer’s Paradox: “our goal is to observe the way people use language when they are not being observed” (1972a: 61). Sociolinguistic fieldwork of all kinds, whether recorded interviews, participant observations or street-corner quizzes, must be geared to overcome this problem. In this chapter, I consider several well-established methods. I begin with a section on “Planning the Project,” dealing with preliminary considerations for designing and conducting a sociolinguistic survey. The heart of the chapter, as indeed of field research, is the second section on the “Sociolinguistic Interview,” the Labovian protocol for selecting informants and eliciting different styles of speech. I then consider some other elicitation methods used in sociolinguistics: participant observation and rapid and anonymous observations. While telephone surveys have been fruitful in the past (see Labov et al. 2006; Ash 2000), today they have limited use because of the general shift to cell phones, eliminating the use of area codes or telephone directories in identifying likely participants. Long-distance surveys today can utilize internet phone services such as Skype or other internet technologies (e.g. web-based surveys for gathering self-reports of linguistic production and/or information on linguistic perceptions and attitudes; see Schilling 2013); they will not be discussed here. Instead, I will focus on face-to-face methods.
1 Planning the Project

Although the methods involved are presented here as if they were sequential, in practice the various phases of fieldwork and other aspects of research are cyclical, or perhaps spiral. Investigation in one area will influence what can be done in another. An interview might provide insights about the community that can be incorporated into the protocol and produce a much better interview with subsequent informants. For instance, in my work in Anniston, Alabama (Feagin 1979), one teenager mentioned a recent snowstorm, an unexpected and exciting phenomenon in that part of the world, and so in later interviews I asked the rest of the teenagers about it. As a result, I came away with excited accounts of sledding on garbage-can tops and cookie sheets, wearing improvised boots made from plastic bags, and skidding dangerously over slippery roads. My interview protocol for the older people already included questions about a tornado that had hit Anniston 20 years before; the snowstorm provided similarly dramatic stories from an incident in the recent memories of the teenagers.

Similarly, sometimes in the course of an interview, investigators might discover an unexpected grammatical form or phonological realization. They must be attentive and flexible in order to pursue the newly discovered linguistic feature for that community.

As an aid to planning, a small-scale pilot project along the general lines of the main research will indicate more precisely what might be feasible goals and procedures. A larger consideration is that collecting data is only an intermediate goal. The ultimate goal is linguistic.

The hypothesis that motivates the project will influence how to go about collecting the data. Again, in my own work in Anniston, I hypothesized that over the three-and-a-half centuries of close contact, African-American speech would have influenced European-American grammar in the South. I therefore set out to elicit data from the white community that was parallel to Labov’s African-American data from Harlem (Labov et al. 1968; Labov 1972b). Even though it turned out in large part that my hypothesis was not correct, nonetheless it was important to try to get parallel data so that a comparison would be possible.

An important guideline for fieldworkers at the planning stage is that a close analysis of a small amount of data is better than an unfinished grandiose project. With that in mind, I concentrated on the extreme generations (teenagers and grandparents) and extreme social classes (local working class and upper class), and the older rural working class (with no younger counterpart). More than that I could not handle, though ideally I would have liked to include the middle class and the middle aged, not to mention the local African-American community. However, examining only the two urban classes plus the older rural working class, using adolescents and grandparents in the city and elderly people from the country, and keeping the sample balanced in terms of gender, I was able to see change progressing through the community.

A rule of thumb in disciplines that require fieldwork is that one third of the project time will be spent in fieldwork, one third in analysis, and the final third
in writing up the work. Though far from scientific, this rule provides an effective reminder of the point that time required for analysis and writing increases in a ratio of about 2:1 for each hour of data elicitation.

Competent fieldworkers have included a wide range of personality types. Because fieldwork requires face-to-face interaction, it is usually assumed that gregarious persons do best, and it seems likely that they would have an advantage, at least in getting started. Shy people might find this sort of work excruciating, especially in the beginning. However, shy people have sometimes proven highly successful in conducting interviews and obtaining data, for the simple reason that people often open up when talking to quiet people, perhaps because they find them unthreatening and perhaps because the lack of interruptions encourages them to speak at length (Schilling, personal communication).

1.1 Library research

Once the community has been selected for research, the next step is to get a perspective on the community itself—linguistic, demographic, and historical. Information on local speech, major industries, labor, religious institutions, communications, movement of peoples, and the historical development of the area can aid in understanding local society.

A survey of previous linguistic work must be carried out, both on the linguistic aspects you intend to study and on any previous research concerning the local language variety. Earlier work on the local variety, regardless of its quality, can be useful for time depth or for pinpointing interesting problems.

First-hand accounts of fieldwork can be found in Labov (1966), Feagin (1979), Milroy (1980), Dayton (1996), and Eckert (2000) for linguistics, and in Whyte (1943, 1984) and Liebow (1967) for ethnography. Such personal accounts are rarely published, but dissertations often include them in chapters on methodology. More general discussions may be found in Labov (1972a, 1984), Wolfram and Fasold (1974), Milroy (1987), Romaine (1980), Baugh (1993), Milroy and Gordon (2003), Di Paolo and Yaeger-Dror (2011), and Schilling (2013). For sociolinguistic fieldwork in non-Western societies where the investigator is clearly an outsider, see Albó (1970), Harvey (1992), Wald (1973), and Bowern (2008). Obviously, a different set of problems arises when the fieldworker is a foreigner, of different ethnicity, and not a native speaker of the language. While addressed to researchers doing basic linguistic fieldwork (rather than sociolinguistic research) in non-Western languages (frequently in remote areas), Samarin (1967) provides an overview of linguistic fieldwork, though now somewhat dated. Bowern (2008) is a more recent resource.

1.2 Ethnography

Along with gathering linguistic data, it is important to study the community itself in situ. While material collected from library research must not be overlooked if it is available, the researcher in the field must begin by observing the physical layout of the place, who lives where, who associates with whom, and in what situations
particular people associate with each other. While this type of research can be seen in Fischer (1958) and more elaborately in Labov (1963), subsequent studies have become more sophisticated and more detailed, culminating in Eckert’s intricate study of a suburban Detroit high school (Eckert 2000). It is through a thorough knowledge of both the structure and dynamics of the local community that the patterning and social meanings of language variation and change in the speech community can be fully understood. While some linguists have criticized sociocultural investigations as outside the competence of linguists who are not specialists in sociology or anthropology (Bailey 1996), the only way some aspects of language behavior can be understood and analyzed is through such an undertaking.

It was through such a study that Labov was able to show that younger people on the island of Martha’s Vineyard who had decided to remain on the island after their high school years were picking up the fishermen’s pronunciation of (ay) and (aw), regardless of their social class, while those who had decided to leave the island for further education and employment were shifting toward mainland speech norms (Labov 1963). Similarly, Eckert (2000) was able to show that the social division between “jocks” (middle class) and “burnouts” (working class) in suburban high schools played a role in transmitting urban Detroit features into suburban teenage speech. See Eckert (2000: Chapter 3) for a valuable account of the process of studying the ethnography of a community.

1.3 Linguistic variables

In a quantitative study of linguistic variation, acquaintance with previous work and perhaps a pilot study should help to narrow the focus of the project. In practical terms, however, this does not always take place right at the beginning. What needs to be isolated before analysis can begin, and preferably before data-gathering begins, is a selection of linguistic variables to be studied. As with fieldwork more generally, though, the process is iterative, and it may turn out that the variables one originally sets out to study are not of great sociolinguistic interest, and more important features may be revealed as fieldwork progresses.

The linguistic variable, a concept originating with Labov (1963, 1966), is a linguistic entity which varies according to social parameters (age, sex, social class, ethnicity), stylistic parameters (casual, careful, formal), and/or linguistic parameters (segmental, suprasegmental). Usually the social and stylistic variation will be coordinated in some way, so that the casual speech of an accountant will be similar to the formal speech of a plumber – though that remains to be seen in the course of the investigation.

The linguistic variable can be found at all linguistic levels: most common are phonological, such as, for example, (r) might be realized as [ɹ] or as [ǝ] in a community which has been r-less and is becoming r-ful; morphophonological as in (ing), the English present participle marker which has two common pronunciations, standard [ɪŋ] and casual [ɪn]; morphological as in the realization of the past tense form of dive either as dived or as dove; syntactic as in the realization of negated be variously as ain’t, isn’t, ’s not, is not; or lexical as in the use of either hero or
grinder as the word to designate a particular kind of sandwich. The most frequently studied variables are phonological and morphological.

The main criterion for determining the set of variants of a single variable is that the referential meaning must be unchanged regardless of which variant occurs. (This can present a problem when dealing with grammar, as pointed out by Lavandera (1978) and Romaine (1981).) The selection of one variant from the set will generally be motivated by either social or stylistic considerations. See Wolfram (1993) and Guy (1993) for discussions of some of the problems connected with settling on the variable(s) to be investigated.

1.4 Recording equipment

To name particular types of recording equipment would not be useful, because technology changes so rapidly. However, it is crucial that researchers use recording equipment meeting the technical specifications needed to produce sound of high enough quality for potential acoustic phonetic analysis (whether or not this is the immediate goal of the study) as well as high-quality external microphones. Some types of equipment have abiding advantages. For example, the lavaliere (lapel) microphone improves the quality of the sound and minimizes the speaker’s attention to the recording mechanism. Also crucial is selection of recording location. Clearly, quiet locations are better than noisy ones; however, sometimes field-workers must sacrifice sound quality in favor of enhanced interactional quality when quiet locations that are comfortable to interviewees are not available. In addition, researchers should be aware that some types of noise that wreak havoc on audio recordings are practically unnoticeable to the untrained ear – for example, the noises emitted by electronic equipment (including computers), kitchen appliances, and espresso machines (despite the many other advantages of conducting interviews in comfortable public locations like coffee shops). The reader is referred to Cieri (2011) for excellent, detailed advice on selecting locations for interviews and choosing microphones and recording equipment. See also Schilling-Estes (2007) for good discussion and advice about videotaping interviews.

The main point is to get the best equipment possible given the practical constraint of expense. Recording fidelity is the primary consideration, and after that come ease of use, flexibility, weight, and other factors. Field recordings can be useful for many years, for purposes unplanned. In my case, tape recordings intended only for a study of grammar have since been used for work on phonology, both using impressionistic phonetic transcription and computer-assisted vowel analysis.

1.5 Institutional Review Board approval

Before heading off to the field, it is necessary to fulfill the requirements of the IRB – the Institutional Review Board – also called Ethical Review Board (ERB) or Independent Ethics Committee (IEC) at your institution and/or granting agency. In the US IRB approval is required for all research involving human subjects. Each
institution has its own requirements, so it is advisable to obtain and complete IRB approval forms early and allow enough time for your project to be reviewed and accepted. A crucial component of the approval processes involves preparing an Informed Consent Form which will have to be signed by each study participant (or legal guardian, in the case of children under 18).

### 1.6 Self-presentation of the fieldworker

Having selected the community and investigated the locale, culture, and speech, and having the approval of the IRB, the investigator finally has to actually go there and find people to talk to. This is a rather stressful position to be in, from all accounts. Eckert (2000) describes the nightmares she had before beginning her work in the Detroit suburbs. Entering any community carries with it certain responsibilities for respecting the privacy and customs of local people. Most often, this is not a great problem because researchers tend to investigate cultures with which they have some personal familiarity. It is a much greater problem, obviously, in a culture and language that is not native to the investigator. In these situations, Samarin (1967: 19) recommends that the researcher undertake meticulous planning to deal with the pressures, being aware of the problems that might arise and arranging for breaks in order to get away from the locale from time to time.

Often, cultural alienation is not a factor. My own fieldwork, for instance, took place in my home town, where I had lived until I was 15, and where both my mother and grandfather had grown up. My role there, while conducting fieldwork between 1969 and 1973 and again in 1990 and 1991, was both as a visitor in the town, staying with my grandparents, and as a researcher working on my dissertation, carrying out interviews. On my side of town I was known to the people I interviewed as a friend’s granddaughter or cousin, but on the other side of town I was a complete stranger doing research. I told people that I was working on a book on growing up in the town, and how it was changing over time, especially for the teenagers. I said I wanted to record speech in the interests of accuracy, so I would get the dialog right. As a former resident with kinship ties in the town, I attended church with my family, visited friends, and took my grandmother to her club meetings. I also attended revival meetings and visited a church on the other side of town, which helped me learn about the life and culture outside of my own experience and to meet older people who were members of the church I visited.

I was careful to dress suitably according to local custom, always wearing a skirt and stockings to interview older people and to attend classes at the high school, but sometimes wearing blue jeans and sitting on the floor when interviewing teenagers, explaining that I needed to watch the level on the tape recorder while we were talking. In this way I was showing respect to my elders and solidarity with the younger group. With teenagers, I generally took along sodas and chips, which helped make the interview less formal, though the crunch of potato chips sometimes can be heard on the recording.

In reporting on his research in a small town in North Carolina, Hazen (2000) explains that before beginning his fieldwork he had married a woman from the
community, which gave him entree. However, as a native of suburban Detroit, he was not as well acquainted with the culture as he might have liked, though this also allowed him to assume the role of a student of that culture and ask questions that only an outsider could ask.

Albó (1970) describes in detail his entry into rural communities in Andean Bolivia where his identity as a priest proved advantageous. He was sometimes asked to bless houses, which gave him an opportunity to observe the living standards of the families. This contributed to his understanding of the degree of modernization of the household, giving insight into the relationship between the borrowing of linguistic forms and of material culture. It also gave him opportunities to line up interviews. Similarly, Harvey (1992), whose research was in Southern Peru after it became a dangerous area for outsiders, was considered the adopted daughter of a local family, which gave her a place in the community, allowing her to observe both language and culture.

Both Whyte (1943) and Liebow (1967) emphasize that it is never possible to completely fit in, nor is it necessary or even advisable. As white middle-class men carrying out ethnographic research among working-class men, one group white and the other black, they report that they were able to lower the barriers between their subjects and themselves but not to remove them. Liebow uses the image of the chain-link fence: you can see through it, but it remains a barrier. The researcher can become a friend, and even find a role in the community, but skin color, class affiliation, speech, or education may all set the investigator apart, which may of course result in less than ideal conditions for collecting maximally naturalistic speech data and maximally informed community understandings but which can also serve as a protection in some situations.

2 The Sociolinguistic Interview

The classic method of sociolinguistic research is the one-on-one recorded conversational interview (Labov 1972a, 1984; Wolfram and Fasold 1974). Recording has the obvious advantage of permanency, so that it is possible to return to the recording again and again, either for clarification or for further research. A second major advantage is that the recording permits the researcher to fulfill the Principle of Accountability (Labov 1972c: 72), so that all occurrences as well as non-occurrences of the variable in question can be identified and accounted for. In this way statistical manipulations of the data can show whether the occurrence of a variant is happenstance or patterned, and, if patterned, to what degree in contrast to its occurrence in the speech of others of varying social characteristics – age, sex, social class, ethnicity – and across speech styles. This, then, is the primary method of quantitative sociolinguistics.

Variations on this classic sociolinguistic interview approach include interviewing two or more speakers together (Feagin 1979), or even breaking down the one-on-one interview structure with pairs of interviewers. Labov used group interviews in his work with Harlem street gangs (Labov et al. 1968; Labov 1972b),
with one lavaliere microphone per person, and a multitrack recorder, while Wolfram, Hazen and Schilling-Estes (1999) reported great success in using pairs or even teams of interviewers in their work in Ocracoke, North Carolina. These variations on the one-on-one interview are intended to reduce the formality of the interview, turning it into a more natural social event.

The sociolinguistic interview – regardless of the variations on it – does carry some disadvantages. The interview as a speech event is a special genre (Wolfson 1976), so the naturalness and certainly the informality of the recorded speech can be called into question, regardless of efforts to make the speaker feel comfortable with the situation. The use of lavaliere microphones may remove the microphone from view, but the recording device is always there. However, despite our fears that recorded sociolinguistic interviews may be less than fully “natural,” Eckert (2000) reminds us that speakers are adaptable in both research and non-research contexts, and they can just as readily shape their speech to naturally fit a conversational sociolinguistic interview as any other speech event in which they find themselves in the course of their daily interactions. Furthermore, recording devices are becoming less obtrusive as technology continues to advance, and non-research-related recording situations are more commonplace.

The interview method works best for frequently occurring variables, especially phonological and morphological, and certain syntactic forms, such as negation. But many syntactic structures, including interrogatives, double modals, and special auxiliaries such as perfective done, do not occur frequently enough in interviews to provide sufficient data for analysis. Moreover, the interview is problematic for discourse studies and ethnomethodology (Briggs 1986).

### 2.1 Selecting speakers

The earliest community-based research in sociolinguistics, Labov’s work in Martha’s Vineyard (1963), used a judgment sample, selecting subjects to fill pre-selected social categories, all locally born and raised adults and teenagers. His categories crisscrossed geographic area, profession, and ethnicity. It is interesting that in this early study gender was not considered a separate social variable, though only men were used for acoustic analysis. In his New York study a few years later, Labov was able to base his subject selection on a previous random survey by the Mobilization for Youth, a project of the School of Social Work at Columbia University, which had conducted a random-sample survey of the Lower East Side. Labov used their demographic data to select natives of the area or people who had arrived by age five, as well as people from across a range of social strata. This was, then, a stratified random sample in that it selected a stratified sample from what had originally been a random sample. In his third major project (Labov et al. 1968; Labov 1972b), Labov worked with teenage boys who were members of street gangs. This represents an early – possibly the earliest – study of language variation through social networks.

Trudgill (1974: 20–30), who followed soon after with a study of Norwich, England, relied on a quasi-random sample taken from four ward voter registration
lists. The names from the voter lists were chosen randomly, but the wards were not random but were selected “so that they had, between them, social and economic characteristics that were, on average, the same as those of the city as a whole” (1974: 22).

My own work in Anniston, Alabama, was based on a judgment sample, filling pre-selected cells on a number of criteria. First, speakers were chosen because they were native-born or had arrived by age five. Second, preference was given to those whose parents were from the area. Though I did not know of the literature on networks at the time, I often selected subjects who were “a friend of a friend,” using the resources of my family and their acquaintances for contacts. I began with friends of a younger cousin, then moved on to friends of my grandparents. Later, when I wanted to work in another section of town, I began with a home economics teacher who turned out to be an acquaintance and an admirer of my grandfather. She welcomed me into her classes where I was able to observe, and in some cases (with permission) to record the students and make appointments with them for interviews. Twenty years later, in 1990, I followed the same procedures to find teenage subjects on both sides of town. Luckily enough, the now-retired home economics teacher was still in touch with the students I had interviewed 20 years before, and through her I was able to find those students again, most of whom still lived in the area.

When the Milroys were selecting informants in Belfast (Milroy 1980; Milroy and Milroy 1985), they were forced to rely on the “friend of a friend” method for contacts because of the sectarian problems in the city, and especially in the working-class neighborhoods in which they intended to conduct their research. Their methods auspiciously introduced the concept of the network to sociolinguists. (See Milroy and Llamas, this volume, on social networks.)

Generally, researchers must use common sense to select subjects not by some pre-ordained “social-science” formula but according to the prevailing conditions of the setting they are working in, as well as their research goals. Thus, in selected subjects for their study of Ocracoke, Wolfram et al. (1999) chose ancestral islanders whose families had been on the island for at least several generations, because the purpose of the study was to recover, as far as possible, the traditional dialect that was rapidly eroding in the face of incursion into the island community by tourists and new residents from a range of dialect areas. In a quite different vein, Eckert (2000) selected high school students of opposing ideologies and styles, known as “burnouts” and “jocks,” basically working-class and upper-middle-class adolescents, because she was studying the dynamics of adolescent speech and culture in the school setting.

One danger with selecting informants by pre-selected categories is that results can be self-fulfilling or circular. For a more general community study, Horvath (1985) gathered speech data from a stratified judgment sample in Sydney, Australia, and analyzed it using principal components analysis, a statistical technique which grouped speakers into clusters according to their linguistic similarities, and
Data Collection

in that way revealed what the sociolinguistic groupings of Sydney were, based entirely on speech, rather than on preconceived notions about class membership, sex, or other social groupings.

Except for studies that take a special interest in the language of children (as with Roberts, this volume), it is better to avoid speakers younger than adolescents, since there is the possibility of confounding phonological or grammatical development with local variation.

The two genders must be kept fairly even numerically in order to prevent a confounding of gender differences with other distinctions. Many studies have demonstrated gender differences in language, beginning with Fischer’s (1958) study of (ing) which showed that boys in a small New England town were more likely to use the [m] variant than girls.

Attention must also be given to social class (as in Ash, this volume), as well as its interaction with age and gender. The older members of any class usually have the most conservative phonology; teenage working-class boys and girls are often the leaders in innovation, with certain items being more characteristic of one gender than the other. Eckert (2000) elaborates a striking example of highly innovative teenagers who show gender- and social group-based differentiation in their usage patterns for new linguistic features. In regard to grammar, the higher classes will usually use a local variety of the standard; the older members of the working class will maintain older forms which have become nonstandard and which may be obsolete in other places, while the younger speakers may still use those forms, but may also show innovative forms. For example, an older working-class woman in Anniston used *clim* as the past participle of *climb*, a form which existed in seventeenth- and eighteenth-century English but which since has become obsolete.

Ethnicity often provides a striking correlate with linguistic variation. Wolfram et al. (1999) and Rickford (1985) have shown that African Americans and European Americans living together on isolated islands, of the same socioeconomic background, education and age, show consistent differences in their speech, both in phonology (on the Outer Banks) and in grammar (Sea Islands and Outer Banks).

2.2 Sample size

The next question to be resolved is how many speakers are needed. The question depends most directly on the number of independent variables. If you are interested in comparing the speech of working-class men and women of the same age, say, 30 years old, then you have subjects in only two cells: 30-year-old women and 30-year-old men. If you expand the study to include men and women of 60 as well, the number of cells doubles to four. If you expand to include both working-class and middle-class subjects, it doubles again to eight cells. Obviously, each cell must be filled with enough subjects to provide confident generalizations about the social group.

How many subjects should fill each cell? The simple answer is: the more the better. In practice, sociolinguistic analysis requires isolating and classifying dozens and sometimes hundreds of tokens from each subject. It bears little resemblance
to the sampling carried out in many kinds of social sciences for the purposes of opinion polls or voter preferences. As a rule of thumb, five persons per cell is often adequate, assuming the cells are well-defined in terms of local social categories (Guy 1980). I followed this rule in my Anniston study, where cells consisted of the independent variables of age/sex/social class/locale (urban/rural); so, for instance, I had to locate and interview at least five older rural working-class male informants.

2.3 Interview protocols and questionnaires

There are two main types of sociolinguistic interviews. The most influential one, modeled on Labov’s work, uses a set of questions to elicit as much free conversation as possible, with some reading tasks designed to elicit a range of styles. Another way of going about it is simply to let the conversation flow (Briggs 1986; Hazen 2000). This more open-ended type of interviewing is intended to reduce the distance between interviewer and subject, making the interaction more naturalistic.

For the more structured interview, protocols may be found in appendices of several reports (Labov 1966; Feagin 1979; Labov 1984; Horvath 1985; Wolfram et al. 1999, to name a few). The chief goal is to obtain large quantities of speech that is as relaxed and naturalistic as possible; often, too, researchers will design protocols to sample other speech styles as well, for example reading styles considered to be more “formal” than spoken conversational speech. Some researchers, however, have considered the conceptualization of style as a unidimensional “formal–informal” continuum to be problematic (see Schilling, this volume), and so will focus solely on conversation rather than including readings as well.

Sociolinguistic interviews usually begin by asking subjects about themselves – year and place of birth, parents’ birthplace, schooling (speaker’s and parents’), occupation (their own or that of their parents or spouse). Questions like these often yield a relatively formal or self-conscious speaking style, known as Interview Style, as will discussion of school or the workplace (see Sankoff and Laberge 1978). Such questions invite self-conscious responses by asking the subjects to reflect on their histories and their accomplishments. However, in some circumstances, asking about school activities may elicit informal and spontaneous speech, for example, if directed to subjects deeply and personally involved in those activities. Thus Eckert’s teenaged subjects become very animated when talking about activities, groups, and characters in their school, as did mine (Eckert 2000; Feagin 1979). This distinction is crucial in planning the interview protocol, since it is not really topic per se that correlates with degree of self-consciousness but rather extent and type of involvement with the topic area. People tend to be least self-conscious when talking about subjects with which they are intimately involved, while the most self-conscious speech comes from asking people to talk about their credentials.

In the opening section on demographics, asking the subjects to list the houses they have lived in can lead to a discussion of the neighborhood where
the speakers grew up, and that can lead to discussing childhood friends and describing rules for various games, jump-rope rhymes, and so on. Here the speaker will probably switch to a less formal, more conversational style. It is difficult to monitor one’s speech when recalling and reciting such rhymes as “Fatty, fatty two-by-four, can’t get through the bathroom door.”

Asking the subjects about their first dates or how they met their spouses sometimes elicits a flood of speech, at least in the European-American context. Labov’s best known question has to do with the danger of death: “Have you ever been in a situation where you were in serious danger of being killed, where you thought to yourself, This is it . . . What happened?” (Labov 1972a: 113).

While sometimes this elicits an outstanding narrative, it seems to work better in New York City than anywhere else. My speakers in Alabama, asked the same question, generally responded, after a pause, “No.” Others have had similar experiences – Trudgill (1974) in Norwich, England, Chambers (1980) in Toronto, and Milroy (1980) in Belfast. In Anniston, after the danger-of-death question proved unsuccessful, I discovered that the question “Have you ever heard of anybody seeing a ghost around here?” often elicited long elaborate narratives of local mayhem and murder from older working-class speakers. Similarly, with his Canadian subjects in Toronto, Chambers discovered he could elicit passionate speech by saying, “People keep saying we’re getting more and more American. Do you think that’s true?”

The interview, obviously, must be adjusted for local conditions. Familiarity with local customs helps develop questions such as “When did you get your first gun?” in the southern United States, or “What were you doing when that tornado hit back in 1954?” There is no simple formula for eliciting relatively unmonitored, casual styles. The best advice is for researchers to know their regions, especially the tensions in the community, when planning the interview protocol.

2.4 More formal styles: Reading passages, word lists, minimal pairs

The use of written materials in the interview protocol depends on the focus of the research. Presenting subjects with a reading passage, word list, and minimal pair list can certainly be useful for research oriented toward phonology, because the researcher can ensure that the same words, involving particular phonological contrasts or certain variables in particular contexts, are recorded for every subject. In studying syntax, having the speaker read sentences while being recorded can produce valuable results, if they are used to elicit judgments on grammaticality or acceptability. The speakers can be asked who would use such a sentence, even if they themselves would not. If reading is a problem, as it often is for the oldest rural subjects either through poor eyesight or through illiteracy, having subjects repeat sentences read by the interviewer can also be a source of information. Wolfram and Fasold (1974) discuss repetition tasks and some of the information they can yield. In my own work, I started out using word lists and sentences, but dropped them, since I was concentrating on grammar alone. However, judgments
on sentences proved to be useful, as ancillary evidence. Now that I am using the same recordings to work on phonology, I am very much aware that it would have been helpful to have kept the word list to observe style shifting, and to get an idea of what might be considered more self-conscious speech.

Word lists and reading passages that have been used successfully may be found in the appendix to Labov (1966), Trudgill (1974), and elsewhere. See also Labov (1984) for a description of various field experiments and references to their use. Each community and each set of variables requires its own materials, but looking at previous models can be helpful.

2.5 During the interview

In conducting the sociolinguistic interview, it is important for researchers to give interviewees plenty of space to elaborate on topics of interest and to not waste too much time recording their own voices. Perhaps the most embarrassing moment for novice fieldworkers is the discovery, on listening to interviews they have made, that their own contributions limited what the subject might have offered by interjecting friendly asides or interrupting the flow of the subject’s conversation. The resulting interviews sometimes preserve hard evidence of misguided sociability. Nonetheless, as Milroy (1987) notes, it is important to remember that interviews are exchanges, and interviewers do have to make contributions to get quality conversation in return. Keeping the attention and interest of the speaker during the interview is obviously important, and that makes it hard for the researcher to limit back-channelling. It is natural to respond to what the speaker says, to offer your own opinions and to bring up parallel experiences. And whereas sometimes interviewers can get a bit carried away, providing a reasonable amount of co-conversation can be valuable indeed. Breaking my self-imposed silence in a second interview with one of my subjects, comparing notes with the speaker on some experiences we shared, I discovered that the speaker’s phonology and grammar altered at that point, with more local vowels – more breaking and shifting – and nonstandard grammar where there had been little or none before.

Thus, while controlling the inclination to take the floor, the interviewer must provide signs of involvement – both verbal and nonverbal (for example, maintaining eye contact, if culturally appropriate) – at the same time keeping a watchful eye on the recording equipment and a dutiful ear on the production of the desired variables.

2.6 After the interview

Whether or not to provide monetary compensation to informants is subject to debate (as in Whyte 1984: 361–365). While I have never paid speakers for interviews, others have and do. This may be a community-specific issue. Researchers are often graduate students working on doctoral dissertations – unpaid or poorly paid themselves, so that most of them rely on an exchange of services, such as giving rides, if the researcher has a car, helping with schoolwork, or writing letters,
as did Dayton (1996). As Whyte points out (1984) paying speakers can change the nature of the enterprise, even compromising the possibility of further research by making it much too expensive for others following after.

As noted above, another very important matter must be addressed before leaving the speaker: The person interviewed must sign an Informed Consent Form, indicating their understanding of the basic purpose of the research project and recording and their permission for the interview to be used for research purposes. The wording must be approved by the researcher’s Institutional Review Board and any other relevant organizations or agencies (for example, appropriate school officials, if recording teenagers in a school).

Finally, as detailed in Wolfram, this volume, most sociolinguists feel strongly that they must give back to their communities of study, partly in exchange for community members’ having shared with them their voices, life stories and life experiences, and partly because, no matter what community members have given them, sociolinguistic researchers feel a scientific and ethical obligation to share the linguistic knowledge they have gained through community studies with as wide an audience as possible, including not only academic audiences but also research communities and the general public.

2.7 Ethics

Surreptitious recordings, made by planting a recording device where it will capture ambient conversations without the knowledge or consent of the participants, are often illegal and are considered unethical – and pointless – by the vast majority of sociolinguists. In their favor, of course, is the elimination of the Observer’s Paradox, but in purely practical terms, apart from ethics, sound quality is usually so poor that it is a waste of time, and discovery by the community can lead to serious repercussions. The legal aspects of surreptitious recordings have been discussed by Larmouth et al. (1992), who review state and federal laws of the United States, defend the use of such recordings, and illustrate their points with examples of real or possible situations and their legal outcomes.

Harvey (1992) made covert recordings of drunken speech because it was central to her research, and she states that, while she found it distasteful, she would do it again (1992: 80). She considers surreptitious recordings as no more unethical than researchers not being entirely open about their research agenda with speakers, as in my telling speakers that I was interested in what it was like growing up in Anniston, Alabama, rather than saying outright that I was interested in their grammar.

Most researchers consider that surreptitious recording violates the privacy of the subjects. Even in open recording, it is usually necessary to respect the privacy of subjects by disguising their identities. Some researchers use alpha-numeric codes for speakers, but a better system is to use pseudonyms that preserve clues to ethnic background and other essential traits, so that someone with a German name would be given a German pseudonym, and the same style of naming. Using carefully constructed pseudonyms rather than mysterious codes renders analysts’ jobs easier and also results in more readable text. Recorded discussions of illegal
activities or private matters should be treated as confidential, regardless of the informant’s attitude toward such things at the time.

3 Participant Observation

Because the effect of recording on the interview can never be completely eradicated and because interviews are entirely unsuitable for obtaining certain kinds of data, participant observation has come to be seen as a complementary method of data collection in variationist sociolinguistics. This entails living and participating in the community in some function other than as a linguist, while at the same time observing and noting particular types of linguistic data. Such observations are frequently used to supplement material collected from interviews, as by Labov et al. (1968) and Feagin (1979), but they can also be used as the primary source of data, as in Rickford (1975), Mishoe and Montgomery (1994), and Dayton (1996).

Participant observation is especially useful for studying infrequent grammatical items such as questions, modals, and particles, where recorded interviews will not capture these forms. Either the discourse constraints are such that the question/answer format or the extended narrative of the interview do not allow the forms, or the forms are too rare to make an interview worthwhile. For such variables, participant observation becomes necessary. It is crucial to remember that both participation and observation are crucial: The researcher must immerse him- or herself in the community as far as possible while at the same time maintaining some measure of outside, “observer” status.

One of the best discussions of the rationale for using participant observation as well as one of the most complete descriptions of this method as employed in variationist sociolinguistics is found in Dayton (1996: Chapter 2). Here Dayton relates how she, a white woman, became a member of an African-American working-class community in Philadelphia. She first lived in that neighborhood for two years simply as a graduate student, not participating in the life there. Then she lived as a participant observer for four and a half more years, becoming a block chairman, organizing clean-ups, volleyball games, and generally entering into the local African-American life in that block.

The participant observer studying forms not likely to surface in sociolinguistic interviews will write down their data rather than make audio recordings. Dayton managed to write down most of the data for her study within an hour of hearing it. She seldom attempted to store and remember more than three items at a time. Mishoe and Montgomery (1994), who collected their corpus of double modals through participant observation, report that they wrote items down within a minute of hearing them.

This technique has certain advantages over the recorded interview in that the researcher becomes an insider, in so far as possible, and can in this way overcome the Observer’s Paradox. In order to do this the researcher must reach the point of understanding the communicative and interactional norms of the speech community and participating in the informal social ties and exchange relationships that hold the community together (Dayton 1996: 71).
In the course of her study, Dayton collected 3,610 tokens of African-American tense/mood/aspect markers (Dayton 1996: 55), probably the largest corpus of these grammatical forms. Her observations also included the more general social context as well as the linguistic context of the use of these markers.

The drawback of participant observation is that researchers cannot write down all the tokens of the variable they might hear. There is an inevitable selectivity in the linguistic record. The selectivity means that the data cannot be quantified, so that it is impossible to provide information on the relative frequency of the variable. In addition, there is no permanent record of the speakers, so that it is not possible to return to the source of the evidence. Here the question of accuracy and reliability naturally arises. Counterbalancing that, it permits the study of rare forms, otherwise undocumentable. And the perceptual saliency of the items can abet the accuracy of the observations. In another context, Wolfram suggests that socially marked items are the most transparent differences, and as such they rank high on a “continuum of linguistic trustworthiness” (Wolfram 1990: 125; similarly Dayton 1996: 68–80).

4 Rapid and Anonymous Observations

While participant observation is a very time-consuming and labor-intensive way to overcome the Observer’s Paradox, another, faster technique is “rapid and anonymous observation,” first described by Labov (1966, 1972c). By this method, the variable under study is embedded in the answer to a question that can be posed to strangers. Labov, in a famous example, asked sales clerks in department stores, “Where are the women’s shoes?” The respondents replied, “Fourth floor.” What Labov was interested in was the pronunciation of (r) in the words *fourth* and *floor*. Labov selected a range of stores, from luxury (Saks Fifth Avenue) to bargain basement (Kleins), and was able to confirm that sales clerks tend to speak in a manner that reflects the clientele. The clerks at Saks were r-ful as are upper-middle-class New Yorkers, while those at Kleins were r-less, like working-class New Yorkers. Labov was able to capture 528 tokens of *fourth floor* from 264 subjects in approximately 6.5 hours.

The simplicity of this study has encouraged replications of it in New York and many other places, either studying (r) or other variables. For example, in some communities, the question “Excuse me. Could you tell me what time it is?” (at the right time of day) will produce many tokens of *five* or *four*. This type of study obviously sacrifices knowledge of the background of the speaker in favor of the naturalness of the speech.

5 Life after Fieldwork

Whatever methods the researcher uses, when the fieldwork is finally completed, any sense of relief evaporates rapidly as the reality of analysis of all that data...
dawns. Analysis, of course, moves the sociolinguist onto an entirely different level, with its own problems and its own rewards (as the following chapters in this volume make clear). The crucial first step, the fieldwork, becomes subordinated to finding, expressing and disseminating the substantive results of the project. Many sociolinguists firmly maintain that the more successful the fieldwork, the less noticeable it is in the final analysis and that fieldwork draws attention to itself mainly when the researcher has to concede that there are gaps in the data, flawed elicitations, or results that require caution in the interpretation. However, as variationists increasingly incorporate ethnographic and social constructionist viewpoints into their work, more attention is being given to how data and analyses are inevitably shaped by research methods, research contexts, and researchers themselves, and so the fieldwork process most likely will not remain quite as backgrounded as it traditionally has been. For the moment, though, the sociolinguist’s prowess as fieldworker is often a private source of professional pride that only occasionally seeps into the public domain when sociolinguists gather informally at conferences and meetings. Inconspicuous it may be, fieldwork is the bedrock of the sociolinguistic enterprise, and it is crucial for novice researchers and advanced scholars to understand the methodological underpinnings of even the most theoretically sophisticated analyses.

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From its modern beginnings with the work of William Labov (1963, 1966), the sociolinguistic study of language variation and change has centered on the empirical investigation of naturalistic talk, primarily gathered in the field (see Feagin, this volume) and elicited through the sociolinguistic interview (Labov 1966, 1972). Other data types and methodologies have also been found to be useful for investigating language variation and change – such as the use of written records (Schneider, this volume), general public corpora (Bauer 2002), attitudinal data (Preston, this volume), and, increasingly, experimental laboratory-based work (e.g. Campbell-Kibler 2007) – but data obtained through conversational, sociolinguistic interviews remain the bread and butter of sociolinguistic research. Yet, what do we actually mean when we talk about “data” in the study of language variation and change? How does speech become data? Every act of analysis involves interpretation and abstraction and the process of going from actual, naturalistic talk in and of the community to the sort of quantitative data that sheds light on the nuanced “orderly heterogeneity” of language (Weinreich, Labov, and Herzog 1968) is often under-discussed in the literature, although with further consideration it is quite complex.

This chapter considers the nature of spoken language data and how it is treated in variationist research. Following somewhat from Kendall (2008), I focus on the meta-theoretical questions of just what variationist data are and how modern computer-based techniques can enhance sociolinguists’ connection to and use of their data. I also illustrate how the ways we conceptualize our data and interact with them impacts our analyses and our understanding of the very task of studying language variation and change.
A Brief History of Data in Sociolinguistics

Since its inception, sociolinguistics has been driven by an interest in natural, authentic language data and, over the history of the discipline, scholars have recorded a huge amount of speech. Some of the earliest modern projects alone, such as Wolfram’s (1969) work on African American English in Detroit, collected many hundreds of hours of audio over the course of their fieldwork. The treatment of these recordings – from the more meta-theoretical question of how they have been conceptualized as the data upon which sociolinguistic descriptions and theories are made, to the more methodological issues of how they have been managed and preserved – has changed over the years. I here consider how sociolinguists have treated and described these data, their actual speech recordings, during the past 50 years.

Research reports in the early days of sociolinguistic variation studies (e.g. Labov 1966; Wolfram 1969; Sankoff and Sankoff 1973; Trudgill 1974) tended to publish thorough accounts of their methods, ranging from explications of their sampling techniques – how and why they chose the informants they did – to discussions of their interviewing strategies and even of training their fieldworkers. These methodological reports were an important and necessary step in establishing sociolinguistics as a credible and quantitatively oriented social science and served to aid future scholars by explicitly sharing “the knowledge of the problems [the researchers] faced and the solutions [they] tried” (Sankoff and Sankoff 1973: 12).

Many of these early reports included detailed information about their recordings. For instance, Shuy, Wolfram, and Riley (1968) committed an entire volume to their field methods for the Detroit Dialect Study (Wolfram 1969). Through it, they provide a more thorough account of the treatment of that project’s data and recordings than most other projects have, explaining and commenting upon a range of issues from determining a sampling system to designing the format of the files used for coding their data. Similarly, Sankoff and Sankoff (1973) provide a thorough overview of the field and laboratory methods for their sociolinguistic study of Montreal French, including a discussion of their computerized transcription system and an overview of their complete database, which they enumerate in detail:

(i) 120 reels of taped interviews (2 copies);
(ii) 64 boxes, most of them full, of computer cards containing transcriptions, about 100,000 cards in all;
(iii) computer printouts (in several copies) in readable format;
(iv) in addition, we are presently storing corrected transcriptions on a master computer tape. Thus, to date, 40 interviews, over 20 boxes of cards, are now stored on a single reel of tape at the Centre de Calcul. (Sankoff and Sankoff 1973: 42)

Much of the work following this first generation of sociolinguistic research did not address its data to such a detailed degree. It may be that the level of
description provided by Sankoff and Sankoff became viewed as unnecessarily
detailed. Yet, the earliest projects had a world of options surrounding them about
what to analyze and even what to consider as their data for analysis. They had to
be explicit about each step of their work as they abstracted from real-world speech
events to filtered-down quantitative variable data. Detailed accounts of their data
and research steps were needed. As these studies found success by yielding robust
findings and indicating just how systematic language variation actually is, it
became less important to dwell on many of the technical details. Just as field-
work moved from rigorous, large-scale random sampling techniques (Labov 1966;
Wolfram 1969) to network studies and “friend of a friend” sampling techniques
(cf. Milroy and Gordon 2003) as it became clear that the systematicity of language
variation was discoverable from smaller scale (and more locally sensitive) studies
(cf. Eckert 2005), the fine attention to reporting each step of one’s analysis
process also became less important. In a sense, the data of variationist analysis
often jumps from the actual recordings of conversational sociolinguistic inter-
views to spreadsheets of variable instances.

It is important also to appreciate that recordings during the first decades of
modern sociolinguistics were expensive. Before the advent of lightweight tape
recorders and now ultra-lightweight solid-state digital recorders, recording equip-
ment was large, cumbersome, and costly. As recording technologies became more
accessible via inexpensive and ubiquitous equipment and storage media, socio-
linguists’ discussions of their methods could focus less and less on the practicali-
ties of recording and the details of the actual, physical recordings. A review of
many popular sociolinguistic textbooks shows that their discussions of methods
often skip from data acquisition to data analysis and/or to demographic and
theoretical issues pertaining to analyzing language in relation to social attributes
of speakers (as in Wolfram and Fasold 1974; Milroy 1987; Milroy and Gordon
2003). There are numerous robust discussions of issues like how to choose inform-
ants, how to elicit and obtain “good” speech, and how to analyze the resulting
sociolinguistic variable data. However, almost across the board these discussions
neglect issues in how the speech recordings should be organized, stored, pre-
served, and so on.

Of course, there are some exceptions in the literature. Poplack (1989) discussed
the Ottawa-Hull French Project’s data archive and methodology in detail, a project
with a goal to improve methodologies inherent in working with large sets of data
for sociolinguistic analysis. Her methodologically focused paper responded to the
fact that:

One area in which development has been sporadic at best is in the construction of
major sociolinguistic databases. The trade-off between sociological representative-
ness and ethnographic thoroughness has resulted in insufficient data from a large
sample of speakers, or masses of data of questionable generalizability from a few
speakers. Efforts to increase quantity or authenticity of recordings are still marked
by losses in the quality of the data obtained. And even as a database reaches respect-
able size, its accessibility is concurrently hampered by the uneconomical effort
needed to search it systematically in studies of individual variables. (1989: 413)
Poplack’s paper provides a thorough treatment of many of the steps, from determining a sample population, to interviewing and recording that population, to organizing the resulting collection, and to developing a computer-based corpus of the recordings.

Much recent work in sociolinguistics has returned to dealing explicitly and thoroughly with its data. Tagliamonte’s (2006) textbook, *Analysing Sociolinguistic Variation*, has an entire chapter, “Data, data, and more data,” that reviews a wide range of data management tasks, from labeling and organizing interviews into a coherent corpus to transcribing the data and working with computerized transcripts and recordings. Schilling’s (2013) book *Sociolinguistic Fieldwork* also discusses a range of important data management and preservation questions. Meanwhile, many funding agencies, such as the National Science Foundation in the US, have recently instituted policies about the management, preservation, and dissemination of data collected under funded research. Likely these kinds of policies will make the explicit treatment of data a larger part of sociolinguistic research endeavors in the coming years. My own work (e.g. Kendall 2008, 2011) has attempted to explore the consequences of our relationships with our data, how the decisions we make – for example, when organizing our data, when transcribing, and so on – impact the kinds of questions that we can ask and the answers that we obtain. In Section 3 I consider this point more thoroughly, but first we consider the status of “corpora” in work on language variation and change.

### 2 Sociolinguistics, Corpora, and Data Sharing

Several publications consider the ways that standard, publically available corpora can be used to examine language variation and change (Bauer 2002; Baker 2010; Kendall 2011). I do not consider the sociolinguistic analysis of public, or “conventional” (Beal, Corrigan, and Moisl 2007a), corpora in this chapter but rather the fact that sociolinguists are increasingly discussing and thinking about their own data as corpora, a reconceptualization that has potential benefits for the variationist endeavor. Viewing our recording collections and data as corpora – as coherent, self-contained, representative samples of a language variety (see below for a fuller definition) – positions us to be more explicit about just what counts as the data used in a particular project, what is included, what is not, and how we (and others) access them. It also better supports the model of replicable research to which all scientific research should strive.

Corpus linguists primarily view corpus linguistics as a methodology rather than a theoretical stance (cf. McEnery and Wilson 2001; McEnery, Xiao, and Tono 2006; Gries 2009; Kendall 2011) and as such can offer complementary research methods and practices to the investigation of language variation and change. However, corpus linguists differentiate corpora proper from other, less systematically developed collections of language data. Corpora are often defined as involving an explicit focus on:
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- **Representativeness** and **balance** – a corpus should accurately represent the full language variety it purports to contain; further, it should be balanced across the proportions of linguistic and social categories that comprise the variety.
- **Machine-readability** – a corpus should be machine-readable (which typically means electronic text).
- A particular (large) **size** – many descriptions of “what makes a corpus a corpus” do not explicitly argue for a size requirement, but in reading the corpus linguistic literature one notes a common focus on size measured in number of words and a growing interest in large corpora.

While corpus linguists pay a great deal of attention to the notions of representativeness and balance, these are often taken to be more of an ideal than a strict requirement. It is, of course, often not possible to represent a language variety precisely in a corpus. Gries writes:

> If I know that dialogs make up 65 percent of the speech of adolescent Californians, approximately 65 percent of my corpus [of adolescent Californian speech] should consist of dialogue recordings. This example already shows that this criterion is more of a theoretical ideal: How would one measure the proportion that dialogs make up of the speech of adolescent Californians? (2009: 8)

Even though corpus linguists accept that these criteria are difficult to meet in actuality, many sociolinguistic recording collections do not attempt to meet the sampling criteria or size to be considered “corpora” by many corpus linguists. (Instead, they might be termed “archives” or “databases” by these scholars.) But, terminology aside, thinking about sociolinguistic data in terms of corpora can benefit both the long- and short-term life of the data. For instance, thinking about sociolinguistic fieldwork as corpus creation (in the terms spelled out in, say, McEnery et al.’s 2006 introductory text about corpus-based language study) can lead to better-organized and more manageable data collections.

One lesson in particular to take from the corpus linguistic literature is that it is beneficial to build and organize data collections with the goal that an unfamiliar researcher could make sense of the data without you. It may be the case that you do not plan to share your recordings with anyone else (or that you are unable to, see below), but if you return to your data collection five or 10 years – or even six months – in the future you may find that you approach the data as would a total stranger, for example, no longer remembering how to interpret the file-naming conventions or directory structure.

One of the biggest hurdles to overcome in building sociolinguistic corpora may not actually be technical but rather about who will be able to access the recordings. In some cases, the question of whether or how to share the recordings and other data generated over the course of a research project and who to share with (direct collaborators, other researchers, the general public) is something that each researcher must consider for her- or himself. In other cases, as indicated above, funding agencies or other institutions might enforce a data-sharing or data-accessibility plan, or, as discussed below, human subjects concerns might prevent
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the sharing of data. Traditionally, sociolinguists have not made a common practice of sharing their data widely and an orientation towards private data versus public corpora is a persistent difference between sociolinguistic and corpus linguistic researchers.

Most sociolinguistic work falls into the category of human subjects research (at least in the US and UK) and is overseen by various kinds of ethics boards. In the US, each university or research institution has an Institutional Review Board (IRB) and each IRB may have slightly different standards for what is permissible – even with the consent of research participants. You should always check with your local IRB before beginning any fieldwork. Regardless of your participants’ willingness, it can be the case that your local IRB will not allow you to share the data or that certain steps must be undertaken – such as redaction/anonymization – before the data can be shared (see Childs, Van Herk, and Thorburn 2011).

Corpus linguists deal primarily with text-based data. Documentary linguistics, and the endangered language research community, is another allied discipline, with which sociolinguists have not traditionally collaborated, but which can offer much expertise about the preservation and management of speech recordings. While the nature of their interviews and their analyses – often focusing on qualitative grammatical descriptions – are different than those of sociolinguists, researchers working on endangered languages have a great interest in the preservation of their recordings. They have also put the most focused effort into the development of annotation standards and methodological best practices of any community of researchers who record and analyze natural speech data. Their annotation work (cf. the Open Language Archives Community [OLAC] best-practice recommendations; Simons, Bird, and Spanne 2008) is not always entirely relevant to sociolinguists, but much of the literature on audio preservation (e.g. Bird and Simons 2003) is quite helpful (see Kendall 2013). It is also notable that sociolinguists and endangered language researchers are beginning to collaborate in new and greater ways. For example, Stanford and Preston’s (2009) edited volume on variation in indigenous minority languages collects a number of papers that approach lesser-studied languages through a variationist lens. This can lead to further insights into the principles of language variation and change and simultaneously better, more rigorous treatments of the collected data. As sociolinguists move from their traditional foci on languages like English and French to lesser-studied languages, the issues involved in developing metadata, in transcription and other annotation, and in variable coding – the foci of the next section – become all the greater.

3 What You Put In Impacts What You Get Out

Sociolinguistic fieldwork obtains some of the most authentic language data available within any of the branches of linguistics. However, what sociolinguists get out of their data is ultimately a function of how those data are treated in the research steps following fieldwork. In the process of going from recordings of actual speech to some sort of quantitative or qualitative data for analysis, numerous decisions must be made and each of these can have ramifications on the rest
of the research project and on future – and possibly unexpected – uses of the data. How and where do you record and describe information about the speakers in your recordings and other metadata about the recording? (“Metadata” are data about the data – e.g. what are the properties of the recordings?) Further, do you transcribe the recordings? If so, do you transcribe phonetically or orthographically? What spelling conventions do you adopt and what kinds of variable features do you include? Do you focus on temporal accuracy (i.e. finely calibrated time-alignment) and/or orthographic accuracy? Many more questions are important as well. To review many of these issues further, we will consider a specific research example.

Say that we are interested in examining change in the quotative system – the use of say, go, be like, and so on, to introduce reported speech or thought – in a community of English speakers (cf. Romaine and Lange 1991; Ferrara and Bell 1995; Tagliamonte and D’Arcy 2004, 2007; Buchstaller 2006, 2011; Buchstaller and D’Arcy 2009). We would begin our study by conducting sociolinguistic interviews with a range of age and social groups in the community. We might think that we now have our data and are ready to analyze it, but in fact a number of steps are intermediate before we can analyze the data. Even ignoring the crucial questions about how we define the variable context itself and undertake the variable coding (cf. Tagliamonte (2006) on variable analysis in general and Buchstaller (2011) on quotatives specifically), a number of questions remain about just what the data are. What is the scope over which one can define the variable in the first place? Is it the actual audio recordings themselves or a transcribed representation of the recordings? Put differently, do we extract the data directly from the audio? Or do we transcribe first and then extract variables from the transcripts? Or do we choose a middle route coding variables from the audio but using the transcripts as a guide to the audio? Finally, what specific information do we include with each variable code?

Transcription – the creation of a textual representation of the audio – is standard practice in some research traditions and by some research groups, but is rare or deemed unnecessary by others. This is often a function of the kind of features the researchers are interested in. Scholars working on phonological or phonetic variants may decide that transcription is too costly and time-consuming without high enough returns. Many scholars who work extensively on morphosyntactic or discourse features – like our quotative example – do make common practice of transcribing. In some cases, our preconception of whether we are examining a phonological or a morphosyntactic variable influences how we go about the variable coding, but then – and yes, this is circular – how the data are coded influences how we must analyze and interpret them.

To digress momentarily from our quotative example, variable (ing), the alternation between productions like talking and talkin’, is a widely studied variable in English (e.g. Fischer 1958; Labov 1966; Trudgill 1974; Tagliamonte 2004; Campbell-Kibler 2007; Hazen 2008). One could consider it to be a phonological alternation, a morphological alternation, a lexical alternation, or even a combination of these phenomena. The underlying conception of what the data are – for example, ortho-
graphic transcriptions versus phonetic transcriptions versus actual audio recordings – will ultimately play a role in how the variable is encountered and then studied by its researchers. If I work from orthographic transcripts (with the variable realizations of (ing) coded either phonetically or in the orthography – for example, using the spelling talkin’ for the production [tɔkn]), I can conduct a rigorous analysis of many potential factors behind (ing) realization, even including some phonological factors (determining, for example, preceding and following environments from the transcribed text), but I could not examine the role that discourse-level stress patterns and other prosody plays and I may miss different phonetic realizations of (ing) such as variation in the vowel separate from the nasal segment.

Returning to the quotative example, while many studies of quotatives are conducted in similar ways – roughly by counting instances of the quotative markers (such as say, go, be like) and comparing the relative occurrences of each with other linguistic features of the discourse and social attributes of the speakers – a study could be undertaken in other ways. This could depend not only on one’s theoretical background and interest, but also on the format and type of data used for the analysis. A researcher who becomes interested in studying be like from seeing its use in transcripts may conceptualize a study very differently – most likely focusing on morphosyntactic, discourse, or corpus-based approaches – from one who hears instances of be like in audio recordings, where phonological and phonetic aspects of the occurrences – such as variation in stop-release, intonation, or voice quality – may be more striking.

Further, let’s say our interviews were conducted with pairs of participants who were friends or siblings or spouses. We might later become interested in the question of whether quotative use is sensitive to entrainment, that is, to the use by a speaker’s interlocutor(s). Depending on how the original variable data were coded, this is either a very easy question to pursue or a very difficult one. If each coded variable contains information about when it was spoken, who it was spoken to, who else was present, and so on, we can readily compare usage across interlocutors and examine the data as properties of interactional events among multiple speakers rather than individual instances of language use divorced from their discourse context. If not, this would be impossible or would involve redoing the entire data coding.

The process of going from a recorded speech event to quantitative, variationist data, involves three types of derived (and interpretive) information. Each of these is a kind of data. These are (i) information about the speakers, the interactional context, and the recording itself – the metadata, (ii) intermediate annotations, such as transcripts and analysts’ notes, and (iii) extracted variables and instrumental measurements. I comment on each of these in turn.

### 3.1 Metadata

As explained above, the term metadata means data about data. Typical kinds of metadata – such as the Dublin Core standard used by many libraries – include...
Metadata tell us about the properties of a recording and the participants of the recording. They do not tell us about the actual linguistic (or interactional) content. Annotations provide a representation of and information about what is in the recordings. The most common type of annotation in linguistic research is transcription but other kinds of annotation, like part-of-speech tagging and syntactic parsing, are also common in some areas of work, especially in corpus and computational linguistics (again, see resources like McEnery et al. 2006). Importantly, every kind of annotation – for example, an orthographic transcription or the part-of-speech tags for an utterance – is always a representation of the actual recording and the outcome of an interpretive process.

Let us consider transcription further. Both within and outside linguistics, the orthographic transcript is the primary representation used to present speech in a non-aural format. The act of transcription, especially by beginning transcribers, is often undertaken as a purely methodological activity, as if it were theory-neutral. Yet, each decision that is made while transcribing influences and constrains the resulting possible readings and analyses (Ochs 1979; Mishler 1991; Bucholtz 2000; Edwards 2001). Decisions as seemingly straightforward as how to lay out the text and what spelling conventions to use, to those more nuanced – like how much nonverbal information to include and how to encode minutiae such as pause length and utterance overlap – have far-reaching effects on the utility of a tran-
script and the directions in which the transcript may lead analysts. It is important to remember that the text of a transcript is always an incomplete and interpreted record of the original interaction (Edwards 2001).

Thinking about other kinds of annotations, like part-of-speech tags, brings the interpretive nature of annotation more to the front. Is the word waiting in the phrase *the waiting man sat down* a verb, a gerund, an adjective, or . . . ? Ultimately, the answer is dependent on the analyst’s theoretical framework and the tag-set being used. Deciding with what grammatical category to code the word is a form of analysis.

### 3.3 Extracted variables and measurements

At a certain point we come to what we often think of most squarely as “data” – the specific measurements and pieces of information that are submitted to our quantitative analyses. The principal data analyzed in variationist research are sociolinguistic variables (see Bayley, this volume, for a discussion of the quantitative paradigm) and instrumental measurements (see Thomas, this volume) extracted from speech recordings. But, while variationists may agree in principle on what these data are, there are no agreed upon processes for how to move from a collection of recordings to a set of quantified data for a particular linguistic feature. Wolfram (1993) gives some guidelines for determining and evaluating linguistic variables, but also points out a number of problems with the heuristic, like the difficulty (and under-reporting within the literature) of how to determine what range of variation is subsumed by a single linguistic variable (see also Tagliamonte 2006; Wolfram 2006), as well as problems of inter-analyst agreement and potentially intra-analyst reliability.

Blake (1997) and Rickford et al. (1999) provide excellent (and exceedingly rare) discussions of some of these issues. Blake (1997) investigates the forms not counted by different groups of researchers in the study of copula deletion in African American English, while Rickford et al. (1999) examine how frequencies of copula contraction and deletion have been computed by different researchers and how the differences in methodology affect the results of the analysis. Rickford et al., in particular, demonstrate that different theoretical assumptions and views about data impact the quantitative outcome of a study with consequences of greater theoretical and descriptive import. The significance of these papers is punctuated by the fact that there are countless variable coding issues that go undiscussed in the literature. This is not to argue that variation analysis is impossibly difficult, or that some researchers do it “wrong,” but rather a reminder that the process of moving from recordings to quantitative data involves an array of decisions that must be made, and it is important to be thorough and explicit about each decision.

If we step back for a moment we see that all of the issues discussed here – the various layers of social, interactional, and recording-based metadata, the transcripts we generate, the extracted and coded variables – are in actuality not all that different from one another. Each reflects the output of a kind of analysis – some more subjective and interpretive, some more objective, some “harder” and...
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some “easier,” and so on – but each is just a different kind of information that we might want to use as we conduct our analyses. Each tells us something different about the recordings. And none is theory-neutral. If we are explicit about each of our data processing maneuvers and if we can develop better ways to organize all of these types of data, we can simultaneously make our analyses easier, by decreasing the amount of manual data entry and re-entry work that we do, and better, by decreasing the room for errors to creep into our workflow and by making our work more transparent and replicable.

4 Processing and Storing Speech Data

Recent years have seen a rising interest in the development of models and tools for the storage and management of speech data. Projects outlined in the two volumes on “unconventional” corpora edited by Beal, Corrigan, and Moisl (2007b, 2007c), like the Origins of New Zealand English (ONZE; Gordon, Maclagan, and Hay 2007) and the Newcastle Electronic Corpus of Tyneside English (NECTE; Allen et al. 2007), as well as projects described elsewhere, such as the Bergen Corpus of London Teenage Language (COLT; Stenström, Andersen, and Hasund 2002) and LANCHART (LAnguage CHAnge in Real Time; Gregersen 2009) are actively bridging the gap between corpus linguistic projects and sociolinguistic field-based research and developing innovative, new approaches to the treatment of (socio)linguistic data. Yet, best practices are still being developed and there is much room for advancements to be made. In a 2006 paper, Kretzschmar et al. argued for the need for broad collaboration among sociolinguists in the creation of sociolinguistic corpora and best practices for sociolinguistic corpus development. As the above-mentioned projects indicate, many sociolinguists are indeed thinking along these lines now, although to date the work continues to progress primarily via individual initiatives.

My own work, first (and ongoing) on the Sociolinguistic Archive and Analysis Project (SLAAP; Kendall 2007, 2008) and more recently on the Online Speech/Corpora Archive and Analysis Resource (OSCAAR; Kendall 2010), has sought to explore the possibilities of specialized, web-based spoken language archives. These projects provide speech data management systems in which disparate collections of recordings are stored, managed, and accessed. Poplack (2007), in a short foreword to the Beal et al. volumes, explains that the architecture of a sociolinguistic corpus is dependent on whether it is viewed by its creators as a tool or as an end-product. Unlike many variety- or community-oriented corpus-building projects, like ONZE, NECTE, COLT and LANCHART, SLAAP and OSCAAR are about the creation of tools rather than specific corpus end-products. The projects are outlined in detail elsewhere (Kendall 2007, 2008, 2010; see also Newman 2008), with screenshots and discussions of aspects like the transcript model and conventions, and for sake of space I do not review them in depth here. Rather, I focus on two of their main features in order to describe how computer-enhanced methods
Data in the Study of Variation and Change

for the storage and management of sociolinguistic data can help our research practices.

4.1 Centralized archives and web accessibility

One benefit of projects like SLAAP and OSCAAR is that they store all of a research group’s recordings, metadata, transcripts and annotations, variable data, and other derived materials (including articles, conference handouts, PowerPoint files, etc.) in a single, centralized location. This allows the complete data archive to exist separately from researchers’ individual computers and ensures that all of a project’s data remain accessible to all of their users. Even for recording collections that have only one owner or user (say, recordings collected for a student’s Masters project for which there are no rights to share or reuse the data later), storing the recordings in a central archive still has benefits, such as ensuring that the data survive unforeseeable accidents, like spilled coffee on a laptop.

In the case of SLAAP, the archive is accessible from anywhere in the world, but is housed on a designated computer in the North Carolina State University Libraries server room. SLAAP is custom-built (see, for example, Kendall 2007) but other software is available from university information technology divisions and from private companies that can help in the management of audio data. My own university, for instance, makes available a secure file sharing system for faculty and research use that makes it easy to store (and back up) files and share them among a research group, and my university library provides a web-based publication system for faculty and student use which supports the long-term distribution and preservation of audio and video materials, in addition to more traditional file types, like PhD dissertations. To some degree, even making the move from storing research data on a personal laptop or desktop computer to a centralized, networked drive has preservational and organizational benefits. However, many systems for the generic storage and sharing of files have pitfalls that must be kept in mind as well. For instance, unless a rigorous file access permission system is set up on a networked hard drive, it is easy for a user to accidentally rename, move, alter, or – worst of all – irrevocably delete files on the drive. Bird and Simons (2003) review a number of potential problems that arise from linguists’ move from analog to digital files; the fact that digital files are so much “easier” to store and manage perhaps creates as many potential problems for their long-term preservation as it solves (see also Kendall 2013; Schilling 2013, Chapter 6).

SLAAP and OSCAAR, as specially designed speech data management systems, are built to address some of these basic issues. They provide highly structured access control systems so that different users of the systems have access to different sets of recordings and have access to different sets of features for those recordings. One user, for instance, may be registered as the “owner” or “manager” of a recording collection and can make changes to the collection (and, for example, can add new transcripts to the collection), while other user accounts have “read-only” access to those recordings.
Centralizing all of one’s collected recordings makes it easier to reuse and reexamine older data. Returning to our quotative analysis example, for instance, we could imagine the benefits of having easy access to the files from earlier, related projects. We might, perhaps, want to test whether an unexpected pattern that arises in our own data exists in our colleague’s data from an earlier project. If the data are structured in similar ways and stored in the same place we can quickly test this idea. If not, it could take days of hunting around for the right files and more days to reformat them. Or, we might never find the necessary files.

4.2 Linked layers of data

SLAAP attempts to resolve some of the issues illustrated by our hypothetical quotative analysis by maintaining links between levels of annotation in the data. Each transcript line is accurately time-aligned and linked to its source audio and each extracted variable code is also stored with a time-stamp. Thus, through the web-based software, researchers can listen to the source audio at a click of the mouse and can jump between the different kinds of annotation. If we are interested in quotatives, we can code the instances of the variable directly from the transcript as we might in a “traditional” analysis, but also simultaneously listen to the audio to assess prosodic or voice quality factors that we would not be able to get from the transcript alone. Figure 2.1 displays some sample screens from SLAAP. The screen on the right is a transcript from an interview with a young African-American woman. The image to the upper-left is a (small area of a) variable coding window, where a researcher can extract and code an instance of a quotative. The image to the lower-left shows a close-up of a single transcript line, with a spectrogram and pitch information extracted and displayed. Both views of transcript information include audio players.

SLAAP and OSCAAR, the projects I have been involved in, are only two possible approaches to speech data management and they represent explorations and attempts at “proofs-of-concept” more than definitive solutions for sociolinguistic data management. Other systems are being developed – like LaBB-CAT12 (formerly called ONZE Miner; Fromont and Hay 2008) – and a number of research groups are building sophisticated data management and dissemination systems (e.g. some of the projects described in Beal et al. 2007b, 2007c).

While I have thus far focused on data management systems for sociolinguistic data, it is also the case that general technological advances in natural language processing, acoustic signal processing, and wider computational methods are changing the ways that we examine our data. Easy-to-use, free software, like Praat13 and ELAN,14 make analysis and annotation processes, which once required expensive specialized equipment, possible for near-beginners with only a personal computer. Methods like the forced alignment of plain orthographic text to audio speech recordings (Yuan and Liberman 2008)15 and the automatic extraction of vowel formant information (Evanini, Isard, and Liberman 2009; Labov, Rosenfelder, and Fruehwald 2013) point to new possibilities for the large-scale analysis of language variation. There is no doubt that the coming years will see an explosion of
Figure 2.1 Screenshots from SLAAP.
computationally sophisticated analysis, annotation, and data dissemination techniques. The challenge for sociolinguists in the years to come will be to continue to lead in the collection, analysis, and interpretation of authentic, richly contextualized language data while not becoming isolated from broader advances in the technical and computational treatment of speech data.

5 Moving Ahead

As I pointed out earlier, sociolinguists have collected a huge amount of data over the past half-century. We have also developed sophisticated theoretical and methodological toolkits for the analysis and understanding of our data. We have not – as a field – developed rigorous, shared models of data and this has hampered some areas of potential progress. Across linguistic disciplines, researchers are increasingly turning to corpora of authentic language in use (cf. Wasow 2009) and sociolinguists more than any other language research community could be contributing to the availability of language data. More importantly for sociolinguists, thinking seriously about the nature of speech data will allow us to get more out of them. Twenty years ago, Macaulay wrote:

It is somewhat paradoxical that most of the speech collected in sociolinguistic surveys remains unanalyzed. Most investigators have followed Labov’s lead in concentrating on a few variables. In this approach a certain number of tokens are extracted from the interview and coded. The analysis then deals with these tokens and the remainder of the interview is ignored. (1991: 5)

Macaulay was writing about the sociolinguistic interview and was commenting specifically about how individual interviews are used as data. Out of context we can take his words even more seriously – sociolinguists have a wealth of rich, authentic data available to us but typically use only a very small percentage of that data. Moving ahead we must develop richer models and methods for dealing with all of this data without losing sight of the ultimate goal, to understand the sources, processes, and outcomes of language variation and change.

NOTES

1 Sections of this chapter revisit discussions published in Kendall (2008) and Kendall (2011).
3 http://www.language-archives.org/REC/bpr-20080711.html
4 We might want to craft interviews in such a way as to elicit particular kinds of talk that provide the right environments for quoted discourse. I leave further consideration of the fieldwork strategies for our hypothetical research project, however, to Feagin, this volume.
For instance, contrast a study like Klewitz and Couper-Kuhlen’s (1999) analysis of the prosodic marking of reported speech with the variationist studies of quotatives cited earlier.

In addition to orthographic and phonetic transcripts (in, for example, the International Phonetic Alphabet), linguists also talk about annotation systems like ToBI as “transcription” systems (cf. Beckman, Hirschberg, and Shattuck-Hufnagel 2005), which is to say that transcription as a term is often fairly synonymous with annotation. It appears to be mostly convention that separates what is called “transcription” and what is called “annotation”.

Also see Preston (1982).

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3 Investigating Historical Variation and Change in Written Documents

New Perspectives

EDGAR W. SCHNEIDER

1 How to Listen without Hearing

Language, Saussure taught us, is first and foremost a spoken system – writing is a secondary coding, but speech is primary (1916 [1967: 45]; cf. Milroy 1992: 45). In a default setting, the study of language variation and change starts out from performance data and thus employs methodological tools appropriate to the study of spoken records – sociolinguistic interviews, tape recordings, acoustic analysis, and so on. However, there are areas of study for which spoken records are simply not available. In many cases we are interested in long-term developments, such as the evolution of vernaculars; and these periods of interest to linguists extend considerably beyond the time when audio recordings of speech were first available as a by-product of technological developments. It is prototypically in such instances that variation and change has to be studied on the basis of written documents only.

Normally, as variationist linguists we are not directly interested in the written record as such, not being concerned with the evolution of writing or spelling systems, questions of literacy, and so on – its function is predominantly to serve as a clue, a pathway to the variation and change of the language system in itself. Most written records of interest in this context represent a speech act: either a genuine, historical one that took place at a specific time and place, recorded but indirectly in writing, or a perhaps fictional but necessarily characteristic one, rendering speech forms that a typical member of a given speech community might
have uttered with some degree of likelihood, representative of the everyday communication in this community. In such cases, the written record functions as a filter, as it were: it provides us with a representation of a speech act that we would have liked to have listened to and recorded acoustically and that without the written record would have been lost altogether; but at the same time the rendering of the speech event is only indirect and imperfect, affected by the nature of the recording context in certain ways. The crucial question is to what extent the effects of the recording contexts are predictable, or recoverable. It is essential for us to know, or to reasonably assess, what effect this filter had, how accurately the original speech event is represented. The level of accuracy may vary from a fairly faithful rendering to a gross distortion, and for the analyst it is essential to determine where on this continuum of faithfulness any given record is positioned. A variationist linguist analyzing written records is likely to observe what I call a Principle of Filter Removal: a written record of a speech event stands like a filter between the words as spoken and the analyst. As the linguist is interested in the speech event itself (and, ultimately, the principles of language variation and change behind it), a primary task will be to “remove the filter” as far as possible, that is, to assess the nature of the recording process in all possible and relevant ways and to evaluate and take into account its likely impact on the relationship between the speech event and the record, to reconstruct the speech event itself, as accurately as possible. This chapter sets out to survey and discuss some possibilities and problems associated with this approach, and some necessary considerations and steps in the process of “filter removal.”

The study of variation and change on the basis of written records builds upon a number of precursor and neighboring disciplines which have developed pertinent concepts and methods. For reasons of space they are only briefly mentioned here:

- **Historical linguistics** has investigated written records of the past to understand sound laws and grammatical change.
- **Traditional dialectology** has collected a massive amount of data which are increasingly valuable as historical records of speech.
- **Historical sociolinguistics** has explicitly focused upon using sources like old letters to uncover sociolinguistic stratification patterns of earlier times.
- **Corpus linguistics** has built a number of text collections of historical significance and has been influenced strongly by the variationist paradigm.
- **Pidgin and creole linguistics** has used historical records of creoles to understand creole genesis.¹

Interest in the analysis of written records as evidence of nonstandard speech and linguistic change is evidenced by a number of recent volumes, for example, Culpeper and Kytö (2010), Hickey (2010), Pahta and Jucker (2011), Moore (2011); for further documentation, see Schneider (2012).

It is perhaps worth noting that linguistic research has increasingly also begun to investigate the fairly new, spontaneous and quasi-oral forms found in written
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electronic communication today, such as emails, short text messages, blogs, chats, and so on (e.g. Crystal 2008, Deumert and Masinyana 2008). This is distantly related to the topics discussed here, though also different in character, largely lacking the variationist and/or historical orientation.

2 Assessing the Sources: Text Types and Their Relative Proximity to Speech

Written records that are of interest in the present context typically share certain properties and have originated in characteristic contexts. Thus, I will first consider basic requirements for texts to be acceptable for variationist analyses, then categorize them by text types, and finally discuss some characteristics of the most important text types in the light of their usefulness for variationist purposes.

2.1 Some basic requirements for texts to be useful for a variationist analysis

Only a relatively small fraction of all the historical texts that have come down to us lend themselves to a variationist analysis. Obviously, the usefulness of texts varies also individually, from one text to another, but can be broadly generalized for certain text types which share relevant discourse characteristics. Some requirements need to be fulfilled:

1 Texts should be as close to speech, and especially vernacular styles, as possible (Montgomery 1997a: 227). This condition largely excludes formal and literary writing – such texts may be of marginal interest, but, being shaped by prescriptive traditions and conventions, they normally display categorical, invariant usage and fail to reflect natural speech behavior and associated processes. Notably, this is at odds with the esteem attributed to texts in related disciplines; typically, we want “documents often of no particular interest to scholars in any field but linguistics” (Montgomery 1997a: 227), so there is but limited support available, and not infrequently do variationist linguists use unedited, even manuscript sources, which may cause readability problems.

Example 1

In compiling an electronic corpus of overseers’ letters from the pre-Civil War (“antebellum”) American South (Schneider and Montgomery, 2001), Montgomery consulted with local historians and autograph experts to eliminate undecipherable passages as far as possible.

2 To facilitate correlations with extralinguistic parameters, the texts should be of different origins, that is, stem from several authors from different social classes,
possibly also age groups, and both sexes, and should represent varying stylistic levels.

Texts must display variability of the phenomenon under investigation (i.e. the use of functionally equivalent variants of a linguistic variable).

With quantification being the staple methodology of variationism, texts must fulfill certain size requirements. There is no figure specifying any precise minimum number of words required – but usable texts must provide reasonably large token frequencies of individual variants, and they should (though need not) allow quantitative analyses of several phenomena (i.e. display variation in a wider range of linguistic phenomena).

2.2 Categorization of text types

While there is always some individual variation in style and expression, essentially texts come in text types, determined by their respective discourse parameters, which, in turn, condition their proximity to speech and, accordingly, their usefulness for the study of variation and change. A variety of communicative determinants of the context of situation will play a role here – whether or not texts are speech-based, whether the relationships between the participants in a discourse is close or distant, whether a communication situation is private or public, and so on (cf. Kytö 1991: 37–44). I will concentrate upon text types which bear some relatively direct relationship to speech events. Adopting the Principle of Filter Removal and admitting that the “filter” may consist of a varying number of “layers,” I am proposing five text categories which represent a continuum of increasing distance between an original speech event and its written record, based upon the following criteria:

- the reality of a speech event portrayed: a written record may be a rendition of a real and unique speech event that took place at a given time and location, or it may represent a hypothetical utterance – one that a typical member of a speech community could have made, or one that an individual would have wanted to make but was forced to make through an indirect, written channel;
- the relationship between the speaker and the person who wrote the utterance down, who may or may not have been identical; and
- the temporal distance between the speech event itself and the time of the recording (which may or may not have been simultaneous).

Table 3.1 summarizes these points and the resulting categorization. I posit the following five broad categories of the relationship between a speech event and its written record:

1 Recorded: A direct record of a singular speech event, whether written down on location and simultaneously (as in the case of trial records, for example, the Salem witchcraft trials analyzed in Rissanen 1997) or transcribed later from a mechanical recording (as in the case of Hyatt’s Hoodoo interviews; see Example 3 below).
2 *Recalled*: A record of a singular speech event, although written down some time after the utterance itself, presumably from notes and/or memory. The writer intends to record what was said verbatim and faithfully, but allowance must be made for factors such as lapses of memory or limitations of understanding. Examples: WPA ex-slave narratives, travelers’ records (see Example 5 below).

3 *Imagined*: A writer records potential, conceived utterances by him- or herself which, for lack of the presence of the addressee, need to be written down rather than said; but he or she remains in a near-speech mode. Clearly, the relationship to genuine speech is fuzzy here, but prototypically this state of affairs characterizes writers with limited proficiency and practice in writing, who simply need to put their thoughts onto paper for some reason. Thus, letters by semi-literate writers belong here, but also some questionnaire responses (e.g. the *Tennessee Civil War Veterans Questionnaires*).

4 *Observed*: A writer cites samples of typical utterances by others that he or she regards as characteristic of their speech and has overheard repeatedly. Typically, such contemporaries’ statements are prescriptively motivated. This is similar to Category 2, except that the speech events recorded here are not unique but typical ones, and thus one step more indirect as a record of speech, filtered not only by the perception but also by the evaluation of the author.

5 *Invented*: This is hypothetical, imagined speech, usually thought to be uttered by others than the writer but by speakers with whose real-life models he or she is familiar; there is no association with a real-life speech event, but the fictitious utterance is intended to be characteristic of its – frequently also fictitious – speaker.

<table>
<thead>
<tr>
<th>Category</th>
<th>Reality of speech event</th>
<th>Speaker–writer identity</th>
<th>Temporal distance speech– record</th>
<th>Characteristic text types</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recorded</td>
<td>real, unique</td>
<td>different</td>
<td>immediate</td>
<td>interview transcripts, trial records</td>
</tr>
<tr>
<td>Recalled</td>
<td>real, unique</td>
<td>different</td>
<td>later</td>
<td>ex-slave narratives letters, diaries</td>
</tr>
<tr>
<td>Imagined</td>
<td>hypothetic, unique</td>
<td>identical</td>
<td>immediate</td>
<td>commentaries</td>
</tr>
<tr>
<td>Observed</td>
<td>usu. real, unique</td>
<td>different</td>
<td>later</td>
<td>literary dialect</td>
</tr>
<tr>
<td>Invented</td>
<td>hypothetic, unspecified</td>
<td>n. a.</td>
<td>unspecified</td>
<td></td>
</tr>
</tbody>
</table>
2.3 Transcripts (Category 1: Recorded)

Direct transcripts are clearly the most reliable and potentially the most interesting amongst all these text types – provided that they are faithful to the spoken word and the speech thus recorded represents the vernacular. Interestingly, indirect transcripts – those based upon an audio recording of the speech event itself – can be expected to be even more accurate than direct, simultaneously written ones, as in these cases the scribe presumably had more time to bridge the gap between speaking and writing speeds and thus to record every turn of the utterance, if desired. This is not unlike the situation of a modern sociolinguist, who has typically collected tape recordings but frequently works from transcripts of these – and the process of transcription necessarily involves some difficult decisions and some degree of subjective interpretation. Thus, transcripts of all kinds are more reliable than other types of written records, but even modern transcripts of sociolinguistic interviews are not simple representations of “reality” either, as one might think. Typically, the transcriber is the only person to have access to the audio recording itself, so it is unusual for disagreements on transcription details to really surface in the research community (but see Example 2) – but the problem itself clearly deserves more awareness (cf. Miethaner 2000).

It is actually not as uncommon as it may appear at first sight that a researcher has access to a written transcript of an audio recording but not to the oral source itself, for example, to sample texts in a book, as in Rickford (1987). Not infrequently are transcripts of interviews but not the interviews themselves published (see Example 2). In addition, there is also the more interesting (because it is diachronically relevant) case that early audio recordings were lost but their transcripts have survived (see Example 3).

Example 2

In Bailey et al. (1991; cf. fn. 6) transcripts of interviews with former slaves were published, but at that time the recordings themselves were unpublished (they are now available via the Library of Congress at http://memory.loc.gov/ammem/collections/voices). The authors explicitly describe the process of composing the transcripts, which went through five separate auditings and still left some points of disagreement marked (1991: 14–17). Nevertheless, Rickford (1991) challenged some interpretations of these recordings, claiming that the transcript is unreliable and potentially biased.

Example 3

In the 1930s, 1940s and 1970s Hyatt conducted over 1,600 interviews with black practitioners of witchcraft and rootwork in 13 states. The early ones were recorded by an Ediphone with a speaking-tube, the later ones with an Ediphone and a microphone. All interviews were transcribed exactly, and the transcripts have been preserved and published (Hyatt 1970–1978), while the
audio recordings (originally on aluminium discs) were destroyed. The transcripts were used as a source of earlier African American Vernacular English (AAVE) by Kautzsch (2002) and others.

Direct written records of speech have been used as parts of electronic corpora in the discipline of “corpus linguistics” (e.g. Bauer 2002), pioneered in historical variationist linguistics by the “Helsinki school.” Since the 1980s a group of linguists at the University of Helsinki, Finland, headed originally by Matti Rissanen and now by Terttu Nevalainen, has compiled a series of electronic corpora of historical English texts, with variationist analyses explicitly envisaged (see the website of the Research Unit for Variation, Contacts and Change in English (VARIENG) at http://www.helsinki.fi/varieng). Trial proceedings, court and meeting records, witness accounts, transcripts of sermons, and so on are registers which typically provide verbatim renderings of actual speech, though frequently in speech events marked by a rather formal atmosphere (Kytö 1991: 29; cf. Culpeper and Kytö 1999).

**Example 4**

Rissanen (1997) discussed the Salem witchcraft trial records as linguistic evidence, in which “particular attention was paid to every word and turn of phrase uttered by the suspects” (1997: 185). Huber (2007) has built an electronic corpus of verbatim nonstandard speech records from the Proceedings of the Old Bailey Court in eighteenth- and nineteenth-century London.

**2.4 Recall protocols (Category 2: Recalled)**

These are renderings of specific speech events not taken down on the spot but at some later time from memory, possibly supported by notes. We may assume that a writer wanted to produce a transcript as faithfully as possible, but perfect accuracy cannot be expected due to unavoidable distortions caused by lapses of memory and other “noise” factors, such as misperception. Psycholinguists have carried out research on what is memorized in “free recall protocols” (Hildyard and Olson 1982: 19), frequently of stories. In general, the results suggest that to some extent “surface structure features of the sentences” (1982: 19) are remembered, though a listener’s mind focuses more upon the meaning of the message than upon “the actual words, syntax and intonation,” these being rather ephemeral (1982: 20).

**Example 5**

The so-called WPA (Works Progress Administration) ex-slave narratives, a large-scale systematic collection of interviews with very old African Americans compiled in the 1930s and analyzed amongst others by Brewer
(1974) and Schneider (1989), are an important source of earlier AAVE. These are narratives of life memories of former slaves, written down by interviewers who were instructed to record their speech as “nearly word-for-word as is possible” (Schneider 1989: 48, quoting from Rawick’s edition), on location or expanded later from field notes. Reacting to publications which questioned their validity (see below), Schneider (1997) considered the consequences of the recording procedures in detail, and concluded that the narratives are composed of four layers of text, decreasing in their trustworthiness:

- verbatim notes;
- statements remembered accurately;
- rephrasings of the speaker’s words by the writer; and
- invented words.

Given that three of these four layers are (more or less accurate) renditions of a specific and unique speech event, and that additional evidence can be adduced for comparison and validation (cf. Example 14), he believes there is no “cause for too much pessimism” (1997: 37) and classifies the narratives as “note-supported mental protocols” (1997: 44), texts composed of written notes enhanced by memory.

### 2.5 Private letters by semi-literate writers

*(Category 3: Imagined)*

Clearly, letters do not represent spoken utterances; but when persons who have had but limited experience in writing and exposure to the norms of written expression are forced to write nevertheless, their writing reflects many features of their speech fairly accurately: what they do is put their own “imagined” words onto paper, if only with difficulty. Thus, what we are most interested in are letters by semi-literate writers, a type of resource discovered, analyzed and evaluated most authoritatively in several publications by Michael Montgomery (1995, 1997a, 1997b, 1999; Montgomery *et al.* 1993).

**Example 6**

Montgomery (1995, 1997a, 1997b) uses Irish emigrant letters to establish transatlantic linguistic connections; he calls emigrant letters “the best resource for reconstructing early stages of American English” (1995: 5). In a very important contribution based upon letters written by African Americans after the Civil War, Montgomery *et al.* (1993) document significant parallels between nineteenth-century AAVE and white dialects with respect to constraints on third person plural –s use. Montgomery (1999) and Kautzsch (2002) use letters by African-American repatriates, from Sierra Leone and Liberia, respectively, to reconstruct features of earlier AAVE.
However useful, such letters are often products of the “vagaries and accidents of history (such as which family chose to preserve letters, whether letters survived decay)” (Montgomery 1997a:227). One of their advantages is that they are “usually datable without ambiguity” (Montgomery 1999: 21) and “more often than not localizable to a specific place” (1999: 22; cf. Montgomery et al. 1993: 342–343). Letters “do not reflect everyday speech habits in a straightforward way [because] . . . literacy . . . always affects a person’s writing habits to some degree” (Montgomery 1995: 7), but even if they are not transcripts, “with care and judgement we can separate out the evidence for speech” (1995: 5). Approximation to speech is signalled by “the lack of punctuation and other formal conventions like paragraphing” (1995: 6), unpredictable capitalization, or phonetic spellings (1995: 7).

Montgomery (1999) presents a strong principled argument in favor of the use of documents by semi-literate authors in variation studies, based on an adequate assessment of the difficulties involved. He identifies and addresses four possible problem areas:

1. **Authorship**: It is necessary to ask “on a case-by-case basis” (1999: 22), often in collaboration with archivists and historians, whether letters are indeed autographs (hand-written personally) or were possibly written by an amanuensis (a helper writing from dictation).

2. **Use of models**: The presence of opening and closing formulae and other rhetorical conventions cast doubt upon the naturalness of the speech in letters, but Montgomery argues convincingly that spelling, punctuation and other features indicate clearly that the writers do not copy from a written guide but rely on oral models, having heard letters read out aloud before (1999: 24; cf. Montgomery 1995: 6).

3. **Difficulties in manipulating the written code**: While obviously even the very act of writing was difficult for many writers and many features of the letters appear “erratic and unsystematic” (1999: 24), the “conformity of many misspellings to pronunciation and the systematic patterning of grammatical features according to known constraints [show the documents to be] far from random and haphazard” (1999: 24).

4. **Representativeness**: Were those who could read or write not set apart from a vernacular community and its speech norms by this very ability? This is an objection which cannot be discarded but also should not be taken too seriously, Montgomery argues; in most cases the writers were not members of an elite or a distinct social group (1999: 25).

However, Kautzsch (2002) shows that literacy results in reduced rates of vernacular forms and thus keeps the Liberian letters distinct from transcript sources (which would represent Categories 1 and 2 in my scheme).

**Example 7**

Other uses of letters by semi-skilled writers include Bailey et al. (1989), on plural verb –s in Early Modern English; Filppula (1999), who confirms that
“private correspondence provided the most fruitful source for vernacular features” (1999: 43; cf. 43–46) in early Hiberno-English; the research team headed by Shana Poplack in Ottawa working on the history of AAVE (Poplack 2000, van Herk and Poplack 2003); and Rossouw and van Rooy (2012), who supplement old letters with other texts in a reconstruction of the history of the modality system of South African English. At the University of Regensburg two machine-readable corpora of semi-literate letters, predominantly from the nineteenth century, have been compiled in an effort to reconstruct the variability of early nineteenth-century southern US white and black dialect, called SPOC (Southern Plantation Overseers’ Corpus; see Schneider and Montgomery 2001) and COAAL (Corpus of Older African American Letters; see Schneider 2012).

Meurman-Solin (1999), in work on early Scots, finds an exceptionally high frequency of phonetic spellings in women’s autograph letters (1999: 305), thus documenting a most interesting, culturally-based gender difference (because women had more limited access to schooling). She continues with a remarkable observation: “phonetic spellings previously labeled as ‘nonstandard’ or ‘irregular’ are in fact evidence of an early adoption of later widely diffused variants. A finding of this kind may lead to a reassessment of the role of inexperienced writers as informants in the reconstruction of phonological developments” (306). This, I believe, holds great promise. The chronology of historical sound changes is particularly difficult to determine and tends to be fixed at the time of its completion, with little interest shown in and evidence available for the earlier stages of a change (cf. Milroy 1992: 46). Letters which allow us to detect “embryonic variants,” early traces of future changes (Gordon and Trudgill 1999), could constitute an important advancement in our understanding of the mechanisms of sound change.

2.6 Other autograph records (Category 3: Imagined)

To the extent that semi-skilled writers wrote anything other than letters (and such writings have been preserved), such texts will be equally interesting for variationist analyses: “The unselfconscious wording scribbled down in appeals, answers and witness depositions filed to courts by untutored writers, offer unique instances of lively language...[and] of current colloquial usage” (Kytö 1991: 31). Such writings are rare, however, simply for lack of motivation and circumstances. Diaries may be an interesting type of text; some were used by Kytö (1991). On the other hand, the very habit of writing a diary is untypical of semi-literate writers; not surprisingly, Filppula (1999: 43) states that diaries “were disappointing in that all were written in standard language.”

Example 8

The Tennessee Civil War Veterans Questionnaires (Elliott and Moxley 1985) are “first-hand reports of war-stories and attitudes of Civil War veterans”
(Maynor 1993: 180), systematically collected between 1915 and 1922 in the state of Tennessee by two historians interested in writing history from below (i.e. as experienced by the common people), “a true history of the Old South” (Maynor 1993: 180). The questionnaire consisted of 46 questions on antebellum lifestyle, wartime experiences, and so on. Some 1,650 autograph responses were submitted in response, and these included a wide variety of nonstandard language forms, as many of the writers were barely literate (but still willing to share their views and experiences); and they were published “exactly as written by the veterans” (Maynor 1993: 180). The nature of the data, consisting largely of brief responses (except for some narrations on battles, etc.), imposes limitations (for instance, there are many past tense verb forms but no interrogatives). Bailey (1997: 256) shows how data from this source can be combined with linguistic atlas records and sociolinguistic survey samples in documenting long-term change, based upon the apparent time construct.

Bailey and Ross (1988) analyzed ship logs from the sixteenth through eighteenth centuries as evidence for the “Ship English” spoken by British sailors, held to be the contemporary superstrate input to creolization in the New World. They faced similar problems (brevity and semantic similarity of responses; questionable representativeness because of the widespread illiteracy amongst sailors), but did find some interesting documentation of nonstandard uses, including variable constraints.

2.7 Contemporary commentaries (Category 4: Observed)

This category comprises statements on (and citations representative of) someone else’s perceived, typical speech patterns, without rendering a specific speech event (in contrast with travelers’ observations). Such testimony was typically motivated by prescriptive attitudes: observers quoted “vulgarisms” which they believed were to be avoided (but which, to turn the argument around, they perceived as being in common use around them). In historical linguistics, such evaluations have been relatively important sources of dialectal forms banned from and invisible in the written standard. Of course, there are also difficulties involved: such forms may have been misconceived; the representation may be distorting; usually we get isolated forms out of any context, and we have little extralinguistic information on users and contexts of use – so both representativeness and validity of these examples need to be assessed with care and reluctance. Still, they do indicate earlier variation and change.

Example 9

To reconstruct the earliest stages of New Zealand English, Gordon (1998) systematically collected comments on pronunciation in letters to newspapers and – “very valuably” (1998: 64), she says – school inspectors’ reports written
between 1880 and 1930 (in which some concern on local pronunciations was voiced). Interestingly enough, the availability of archival recordings of speakers from the same period allowed her to compare and thus evaluate these comments. She finds that the written records are “reasonably reliable in certain respects” (1998: 81) but fail to record some other developments altogether, fail to comment on degrees of variability, and do not indicate earliest uses; apparently it takes a time lag for innovations to be commented on.

2.8 Literary sources (Category 5: Invented)

Literary dialect constitutes a topic in its own right which may also serve as a source of information on variation and change (cf. several contributions in Taavitsainen et al. 1999 and Hickey 2010), despite some limitations: literary sources tend to overuse stereotypical markers but reduce variability, and their authenticity may be questionable (Maynor 1988: 110–111; Schneider 1989: 46–47). Cooley (1997) is a case in point: She shows that the speech of an African-American character in a successful eighteenth-century play is actually “based upon Caribbean varieties” (1997: 52), but nevertheless “constituted a prototype for other early African-American literary representations regardless of provenance” (1997: 53) and “became part of early American popular culture” (1997: 56). Despite these reservations, literary dialect can be and has been used successfully for linguistic purposes.

Example 10


3 Problems

3.1 Representativeness

Variationists typically wish to understand certain principles of language organization in a speech community in general; thus, individual informants and text or tape samples are of most interest when they reflect a global distribution (i.e. can be interpreted as samples drawn from and representative of a population). Representativeness is defined as the fit between a sample and the population it stands for: are we justified in assuming that the speakers and samples under investiga-
tion display the same behavior as the entire speech community? There is a crucial difference between the situations of a sociolinguist planning a present-day survey and a researcher working with historical and written data: the modern sociolinguist can define a sample and select interviewees accordingly, while historical work will typically be constrained by the availability of records. Thus, assessing the representativeness of one’s sample is by necessity a crucial, unavoidable problem in working with written documents. Rather than selecting a sample from a population, the researcher typically faces the reverse situation: “The issue is not whether one has a ‘representative sample’ but to profile the sample at hand to see what inferences may reasonably be drawn from it” (Montgomery 1999: 26). A variationist working on written data is thus typically confronted with what Labov (1994: 11) called the “bad data” problem – which can, however, be overcome to some extent.

Example 11

In terms of sample size (1,650 respondents), the Tennessee Civil War Veterans Questionnaires leave nothing to be desired, and the fact that these individuals represent a broad range of social status parameters suggests there should be no problem of representativeness. However, this applies only as long as one disregards gender and ethnicity, as all respondents are men, and most of them are white.

Still, many sources are voluminous enough to allow or require a selection from all the texts available. In such cases, certain simple rules should be applied to avoid any additional bias:

- Measure and constrain quality: check whether there are internal differences in validity. If so, devise a way of measuring them, and select only (from) the best sources available.
- Avoid circularity: in measuring the quality of the texts, do not use phenomena that will be the subject of the investigation proper, to avoid skewing the results.
- Diversify and stratify the sample: other considerations notwithstanding, select a diversified variety of texts (or text producers), to avoid the effects of unwanted correlations or idiolectal bias.
- All other things being equal, select a random sample: for instance, select every n-th text, with n roughly equaling the number of texts available divided by the number of texts to be sampled.

Example 12

In compiling a corpus of Ulster emigrant letters, Montgomery (1995) adopted only two simple selection criteria: all writers had to be from Ulster, and their letters had to attest a minimum of one nonstandard grammatical form (1995: 11).
9). It would have been desirable to apply further criteria, but the scarcity of records did not allow any other limitations. In contrast, Schneider (1989) was lucky to be able to select a working corpus from thousands of ex-slave narratives; for these, representativeness is not a problem (though validity is). He applied a fairly elaborate procedure involving several stages and independent considerations, in line with the above recommendations (cf. 1989: 53–61).

With respect to autograph documents, there is a natural mismatch between our desire for representativeness and the quest for vernacular speech. For example, in the Ship English study of Bailey and Ross (1988) the sample is “skewed toward StE”: most sailors were unable to write, so those who did write the ship logs were possibly not representative. This is a general problem which Montgomery identifies as a genre-specific variant of the well-known Observer’s Paradox and which he calls the “researcher’s paradox” (1997b: 125): “that individuals of lower social status whose speech intruded more directly into their writing usually wrote infrequently and were less likely to have their writing preserved” (Montgomery 1999: 26). To overcome this difficulty, Montgomery suggests an ingenious procedure, clearly related to the role of emotional questions in overcoming the Observer’s Paradox:

the researcher must identify persons of little education who had a compelling reason to write – preferably with some frequency, to a government official or an estate, for example – and thus who had a chance to have their letters preserved in other collections of papers. . . . there are at least three types of such individuals. These may be called lonelyhearts, desperadoes, and functionaries. If we can identify those individuals who were separated from loved ones, were in desperate straits and needed help, or were required by their occupation to submit periodic reports, we may be on the path to locating the letters of greatest interest. These three situations cut sharply across much of the social spectrum, as people of different social stations face loneliness, deprivation, or the requirement to inform others of their work, so the prospect of finding letters of less-educated persons fitting these descriptions is realistic. More important, these situations are compelling enough to motivate individuals to write for themselves, to do their best in putting words to paper regardless of their levels of literacy. In other words, someone pleading for mercy or relief may well pay little attention to the form (spelling, capitalization, grammar, etc.) of his or her writing, being more concerned with getting an unambiguous message across. The written version of the observer’s paradox is accordingly overcome – as much as is possible to do. (Montgomery 1997a: 229)

It is clear that, especially with small, unchangeable sample sizes, representativeness can become a crucial limitation. In such cases, all that can be done is to assess the representativeness of one’s sample as well as possible, and to be reluctant in interpreting the data.

**Example 13**

Montgomery (1997b: 137) points out that the study of verbal suffixation in Early Modern English by Bailey *et al.* (1989) suffers from an error of
representativeness: They “argue that fifteenth-century London English, represented by letters from the Cely merchant family, exhibited plural verbal –s. However, a close analysis of the data reveals that only one member of the family, Richard Cely the Younger, used the suffix regularly in nonexistential sentences; since he was reared in Yorkshire, his language most likely followed the Northern British pattern.”

Still, when samples are large enough, all kinds of parameters can be investigated. Kautzsch (2002) shows that an impressive level of sophistication can be achieved: compiling a unified corpus drawn from several independent sources, he is able to carry out apparent-time analyses of change in Earlier AAVE, with speakers’ birth years extending between the 1830s and the early twentieth century.

3.2 Validity

Validity relates to the quality of a record, its relationship to the target of investigation. If the record relates to a unique speech event (text type Categories 1, 2, and 3, possibly also 4), a valid record matches what was uttered faithfully; with the other text categories, it reflects the everyday speech habits of the target community in a more global, indirect fashion. Unavoidably, the very process of writing speech down reduces validity, either because certain components of speech cannot be rendered in writing or because a writer expresses himself differently than a speaker. In autograph records, “the process of putting words into a written code operates in ways that linguists do not understand, filtering out some nonstandard forms completely, lessening the frequency of others while sometimes producing hypercorrections” (Montgomery 1999: 6). The validity of written texts for speech analyses largely depends upon the writer: his or her willingness and ability to render speech forms. Recording conditions are influential, too, so there is a tendency for validity to vary by text type. Thus, the validity of any individual document has to be assessed on a cline from most to least accurate. For example, in the case of travelers’ reports, the validity of an observation depends on the writer’s familiarity with the variety in question, his physical proximity to the speech act itself, the temporal distance between the hearing and the taking note of an utterance, and also the discourse-pragmatic function of the written text itself. Similar considerations obtain for narratives, literary dialect, and other direct records. For example, Rissanen (1997) observes a “scale of closeness to spoken expression in the Salem documents” (1997: 185). For some text types (especially published sources), the potentially distorting influence of editing has to be considered (Maynor 1988).

Example 14

It is instructive to see how awareness of this issue has grown, for example, in dealing with the ex-slave narratives (cf. Example 4). Dillard (1972) was the first linguist to use selections based upon these records as illustrative examples – but he used not originals but texts from an edited selection (with
linguistic modifications admitted by its editor, Botkin; cf. Schneider 1989: 50), and he cited them as representative of current, not historical, AAE. Fasold (1976) also used Botkin’s edition, as evidence for the dialect’s diachrony, and briefly considered its validity (1976: 80). Brewer (1974) used original typescripts rather than Botkin’s edition as diachronic evidence, but did not question their validity or select individual samples from the overall collection in a principled manner. Schneider (1989: 53–62) addressed these issues and carried out a linguistic “pre-test” with the sole aim of finding out which interviewers could be assumed to have produced reliable records. Maynor (1988) compared the published versions of some typescripts with earlier versions in local archives and detected severe editing interference, casting doubt upon the value of these texts. In reaction, Schneider (1997) argued that the narratives combine text passages that individually can be assigned to four layers of validity (see Example 5), and that these texts remain useful, within limitations (cf. Brewer 1997: 74). Kautzsch (2002) restricted his selection to earlier typescript versions from two states only and admitted only texts by interviewers whose work was marked as particularly reliable by extralinguistic evidence.

Some means of assessing the validity of individual texts or collections is therefore needed. I propose four hierarchically ordered sets of criteria. Each of these categories is fuzzy in itself, building upon several indicators; so overall a rating process will end somewhere on a continuum between relatively dubious and quite reliable validity:

1 Nature of texts: The surface appearance of a text, including criteria like the presence and frequency of dialectal forms, the presence of variation, and the overall impression of authenticity, plays a role in assessing a text. In practice, this is mostly a negative criterion: texts like letters, narratives, and so on will have to be excluded if they are too close to the standard.

2 Recording conditions: The more the recording situation is removed from the original utterance temporally, locally, and personally (qualities which can usually be deduced), the less valid is the rendering of text. Sometimes we have explicit external evidence on the quality of a record, such as statements on interviewing and recording policy.

Example 15

Kautzsch (2002) explicitly admits texts by an interviewer who moved into a community and acted as a participant observer (and thus counts as particularly reliable). In contrast, Gordon (1998: 68) cites the case of a traveler who recorded a particular pronunciation detail only after it had been explicitly pointed out to him, but subsequently he noted it in all localities – a distribution which is most unlikely to reflect real-life facts.
3 Internal consistency: In relatively large corpora, especially if they derive from several primary sources (e.g., independent sub-corpora, records by different fieldworkers, writers, or authors), it is possible to check for internal consistency. If variable features are consistently portrayed in a similar fashion, if there is a “momentum of overall consensus across fieldworkers and regions” (Schneider 1997: 37), then we can rightly assume that this reflects external reality. Similarities in constraint hierarchies and frequencies, that is, in largely subconscious structural patterns, across independent writers and sources, cannot be explained in any other reasonable way (cf. Ellis 1994: 136).

4 External fit: Similarly, if the results of an investigation concur with results of other studies and familiar linguistic distributions, such as “conformity of misspellings to known phonological tendencies” (Montgomery 1999: 28), this proves the results to be trustworthy, and thus increases our overall trust in the respective source – again, it is hard to see what other cause apart from both analyses describing the same reality could explain such conformity.

Example 16

Schneider (1983) claimed that Earlier AAVE was rich in verbal endings in all grammatical persons, a proposal which at that time was in stark contrast to conventional wisdom, which assumed an earlier creole stage of AAVE marked by a lack of inflectional endings as observed in creoles. However, his claim was supported by various observations: internal consistency of the data stemming from many speakers and writers (1983: 103), a regionally systematic patterning across nine states (with adjacent states showing identical inflectional systems (1983: 105), some socially interpretable variation (1983: 106), and similarities with other descriptive statements relating to that period (1983: 103–104) as well as present-day AAVE (1983: 101) and with phonological and lexical constraints in present-day investigations (Schneider 1989: 66–71, 80–81). Schneider (1997: 41–43) also documented further correspondences to tape recordings of socially comparable speakers (from Bailey et al. 1991) for the rank ordering and frequency of verb and noun inflection.

3.3 Analyzing different levels of language organization

Clearly, the validity of speech representation also correlates with structural types: some levels of language organization are represented fairly accurately while others will be more difficult or even impossible to render. For example, some phonetic details without grapheme correspondences are neutralized in spelling, like voicing in certain fricatives: the letters <s> or <th> fail to indicate whether a voiced or a voiceless consonant is represented. Whether or to what extent a given linguistic pattern will be represented in written encoding depends upon the following factors:
1 **Heaviness:** This concept, also called “weight,” is difficult to define but correlates with length and sonority (roughly, the intensity and loudness of a given sound, measurable as its air pressure level and correlating with its perceptive audibility): the longer a form is, the more phonological and morphological material is employed in its encoding, and the more sonority its phonemes have, the heavier it is, and the more likely it is to be noticed, memorized, and written down (Schneider 1997: 38). By implication, this correlates with language levels, with syntactic choices being more likely to be rendered accurately than morphological forms and, in turn, than phonological details. For example, a plural form book-dem is more likely to be noticed and recorded than the suffix in books; the same goes for a pattern like Ain’t nobody told me as against the dental suffix in told/tol’, and for a past tense form clum as against climbed. Montgomery agrees that “letters offer evidence for pronunciation [but] are most amenable for the investigation of grammatical features” (1995: 7).

2 **Salience:** While heaviness operates universally, salience (roughly, greater awareness associated with a linguistic marker or stereotype in a community, though a difficult concept to define precisely) is variety-specific, but has the same effect. Features which are known to be characteristic of or socially diagnostic in a speech community are likely to be recorded more frequently than actual usage would justify. Gordon notes this effect in observers’ commentaries (1998: 68), and it is also known to occur regularly in literary dialect; we can expect it when a writer feels a need “to improve the apparent authenticity of the narrative” (Schneider 1997: 38). Thus, high frequencies of occurrences of such markers in certain text types will have to be interpreted reluctantly. In contrast, inconspicuous forms, indicators which operate below the level of consciousness, are unlikely to be exaggerated or artificially inserted by a writer, and are thus more likely to be authentic when recorded.

3 **Pragmatic and semantic conditions:** Which linguistic elements are used or fail to show up in a text also depends upon its topic and pragmatic function. Most obviously this concerns the vocabulary of a text, which is constrained by its topic. However, grammatical patterns may be similarly restricted (for example, there are usually no tag questions to be found in letters).

**Example 17**

In ship logs Bailey and Ross (1988) find “little data on indirect and direct questions, relative clauses, and modal verbs; . . . [as well as] little evidence on aspectual markers or the possible deletion of auxiliary verbs” (1988: 197–198). The extremely rare use of double modals (like might could) in written documents is pragmatically based: they “cluster in certain types of interactions (subtle give-and-take negotiations and sensitive face-saving situations in which highly conditional and indirect speech takes place) that are rarely found in the written record of the language” (Montgomery 1998: 96). Montgomery hypothesizes that similar restrictions might hold for double negatives, the negator ain’t and perfective done (1998: 120).
3.4 Analyzing phonetics with written records

This is what variationists are often interested in, but what is also most difficult, given the impact of heaviness just discussed. Again, we need to find some reasonable middle ground. On the one hand, as Gordon (1998: 67–68) shows in some detail, there are some pronunciation features which orthography simply cannot render, as well as some spellings for which it is not clear what they indicate phonetically. On the other hand, “variable scribal usage is likely to be functional in some way, . . . and the most immediately obvious function of an alphabetic writing system is to relate writing to speech-forms, however complicated this relationship may be” (Milroy 1992: 142). In a similar vein, Montgomery (1999: 25) confirms that “unconventional spellings almost always turn out . . . to be phonetically based in whole or in part.” After all, even if the orthography of English is fairly inconsistent, there are well-established sets of grapheme-phoneme-correspondences which are employed in writing (cf. Miethaner 2000).

Example 18

Montgomery (1995: 7) discusses the phonetic interpretation of some spelling variants. He distinguishes linguistically trivial misspellings, such as a lack of double letters (stoped), a lack of silent letters, or spellings reflecting common pronunciation (cuntry, sitty), from meaningful spellings, such as injoying (suggesting the presence of the prenasal e/i-merger) or Prevealed “prevailed”, Beaker “baker”, which implies that to the writer the spelling “ea” suggests a historically older and unraised, /e:/-like pronunciation, resulting in homophony between reason and raisin.

3.5 Choosing between qualitative and quantitative approaches

Essentially, the variationist paradigm builds upon quantitative methodology, aiming at correlations between linguistic variants and internal or external context factors. This is also the goal of analyses of written documents, but it requires a certain breadth of coverage of variants and extralinguistic parameters of variation. Given the sampling difficulties addressed earlier, such frequency requirements are not always met, so quantification may not be possible or justified. That does not render smaller corpora useless, but forces the analyst to resort to a more elementary level of description: if it is not possible to ask and analyze how often a variant occurs, frequently it still makes sense to ask if it occurs at all, which variants are found, and, possibly, who its users are. Two simple levels of analysis are possible underneath the level of quantification: a strictly inventorital, token-based approach (cf. Bailey and Ross 1988: 198) which limits itself to documenting which forms are found, and a slightly broader idiolect-based mode of analysis which looks at both forms and the social characteristics of their users (ideally hoping for some pattern to emerge). A qualitative investigation is usually less sophisticated but more
Data Collection

robust than a quantitative one, because some potentially distorting effects (such as overuse of a salient form) skew frequencies of occurrence but not necessarily the qualitative inventory of forms in a variety (cf. Schneider 1997: 43–44). It is possible that a written corpus allows reasonable (but isolated) observations, though not broader generalizations (cf. Montgomery 1995: 9). But then, quantitative data do not speak for themselves either – they require careful assessment and interpretation, as in any variationist investigation.

Example 19

The analysis of a literary dialect representation of Jamaican Creole, based on Michael Thelwell’s novel *The Harder They Come*, by Schneider and Wagner (2006) combines a quantitative analysis of several feature distributions in the speech community with qualitative documentation in the form of extracts representing different speakers and their idiolects, with sociolinguistic contextualization.

Example 20

Taken together, the papers in Poplack (2000) build a strong case for an English ancestry of African American English, mostly on the basis of sophisticated quantitative feature distributions in older, written records. However, Rickford (2006) challenges this claim, arguing that in some cases the frequency data presented are irrelevant and in others they fail to support the conclusions drawn – the issue remains controversial.

3.6 Determining extralinguistic contextual parameters

Finally, in working with semi-vernacular texts it may be difficult to adequately categorize and manipulate the extralinguistic contextual parameters of interest, especially style and class. Frequently an assessment of these parameters requires culture-specific knowledge that may be hard to obtain. Familiar categories derived from present-day investigations may prove of little value in earlier times and other contexts. For example, Nevalainen (Nevalainen and Raumolin-Brunberg 1996: 58–61) discusses the social hierarchy in Tudor England with the aim of establishing a model of “social class” distinctions appropriate for early England, and she arrives at a class stratification that looks alien to a modern sociolinguist, comprising strata like “nobility,” “lower gentry,” “upper clergy,” “merchants,” and so on. In some cases very little may be known at all: according to Montgomery (1999: 21), “lack of personal information about the writers” is characteristic in the case of documents by semi-literate writers, because “less-educated people didn’t usually write to strangers” (1997a: 228). Estimating the stylistic level of some documents may be equally difficult. The only solution to this problem is to collect as much relevant factual information as possible from expert sources, to arrive at a maximally appropriate ranking of styles, status levels, and the like.
4 Conclusion: Pitfalls and Advantages

As is conveniently summarized by Montgomery et al. (1993: 345), analyses of written documents hold specific “potential pitfalls for linguists. Assessing the degree of their vernacularity is a crucial issue that must always be addressed, though it is very often slighted by linguists. Written documents inevitably conceal some, perhaps many, of the speech patterns of their authors and can never be taken at face value as the equivalent of transcripts, especially for phonological purposes.” It is necessary to assess the characteristics of text types and individual texts in the light of their historical and culture-specific settings; it is necessary to judge the representativeness of one’s sample as well as the validity of a group of texts or a single source, and it is necessary to consider the possible effects of these factors upon the representation of a given linguistic level or feature with care, judgment, and reluctance: it is to be expected that these vary greatly from one source to another, from one goal of analysis to another. Mostly the nature of the sources available will determine, sometimes limit, what can be achieved with them.

But that is not to say that analyzing written sources is a second-best solution by necessity. It is important to understand that essentially the same considerations and sometimes also limitations hold, mutatis mutandis, for tape-recorded surveys as well, so perhaps the above considerations also serve to sharpen our eye for essentially similar requirements in working with all kinds of real-life language, a need for the qualification, assessment and interpretation of one’s sources. Perhaps written documents are one further step removed from the “reality” of speech performance than tape recordings. However, tape recordings are also not the direct road to “truth” without further considerations: transcriptions are anything but objective, as Miethaner (2000) shows convincingly, and the need to deal with parameters of cultural context, class, and style (including, for instance, the Observer’s Paradox), arises in much the same way. Working with written data requires somewhat more judgment and assessment than an analysis of audio recordings, but the difference is a matter of degree: essentially, with both approaches the goal is the same, and the pathways to reach it are very similar.

NOTES

1 This paper constitutes a strongly revised and updated version of its 2002 original. Due to space constraints, some material had to be deleted, and readers interested specifically in these neighboring approaches will find more information and further references there.

2 A comparable categorization of early dialogue texts is proposed by Culpeper and Kytö (1999), who distinguish the following three types: “(1) Recorded – texts produced from notes taken down by an individual, such as a clerk, present at a particular speech
event; (2) Reconstructed – texts which purport to present dialogue which actually took place at some point in the past (usually, the narrator was present at the speech event in question); and (3) Constructed – texts which contain constructed imaginary dialogue” (173).

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Part II  Evaluation
The quantitative paradigm in sociolinguistics originated in the studies conducted by William Labov in New York and Philadelphia in the 1960s and 1970s (Labov 1966, 1969, 1972a, 1972b). This approach to the study of language was subsequently extended to a wide variety of communities around the world, including Panama (Cedergren 1973), Norwich, England (Trudgill 1974), Anniston, Alabama (Feagin 1979), and Guyana (Rickford 1987), among others. The central ideas of this approach are that an understanding of language requires an understanding of variable as well as categorical processes and that the variation seen at all levels of language is not random. Rather, linguistic variation is characterized by orderly or “structured heterogeneity” (Weinreich, Labov, and Herzog 1968: 99–100). Speakers’ choices between variable linguistic forms are systematically constrained by multiple linguistic and social factors that reflect underlying grammatical systems and that both reflect and partially constitute the social organization of the communities to which users of the language belong. In addition, synchronic variation is often a reflection of diachronic change.

This chapter outlines the assumptions of this approach to the study of language variation and change. It then focuses on methods of quantitative analysis, including a discussion of multivariate analysis with Varbrul, historically the most widely used method of quantitative analysis in sociolinguistics. The next section considers alternative methods that have been proposed to overcome the limitations of Varbrul, including the logistic regression modules in the open source program R and commercial statistics packages such as SPSS. The chapter concludes with an examination of recent work that synthesizes traditional approaches to the study of linguistic variation and ethnography.
1 Theoretical Principles

Several key principles underlie the quantitative study of linguistic variation. These include the “principle of quantitative modeling” and the “principle of multiple causes” (Young and Bayley 1996: 253). The “principle of quantitative modeling” means that we can examine closely the forms a linguistic variable takes and note what features of the context co-occur with these forms. Context refers to the surrounding linguistic environment and the social phenomena that co-occur with a given variable form. Given sufficient data, we are able to make statements about the likelihood of co-occurrence of a variable form and any one of the contextual features of interest.

These statements express in quantitative terms the strength of association between a contextual feature and the linguistic variable. For example, in a study of Mexican immigrant and Chicano children’s Spanish, Bayley and Pease-Alvarez (1997) were interested in the relationship between the degree of discourse connectedness, operationalized as continuity of subject, tense, and mood with the preceding tensed verb, and the likelihood that the children would use an overt pronoun rather than a null subject in sentences such as (1) and (2):

(1) una noche cerca de navidad ella/Ø nos dijo que se sentía muy mal. . .
   one night near Christmas she told us that she felt very bad. . .
(2) entonces él/Ø tuvo que cerrar la ventana.
   then he had to close the window.

After conducting a Varbrul analysis, the authors reported that in cases where there was continuity of subject, tense, and mood, the weight of the factor was .293. On the other hand, in cases where there was a change in discourse topic, the likelihood of an overt pronoun was .653. Factor weights favor the variant when they exceed .50 and otherwise disfavor it. This means that an overt pronoun is unlikely to occur when continuity of subject, tense, and mood is preserved. However, overt pronouns are more likely to occur when the discourse topic changes. Moreover, as shown in Table 4.1, in the narratives that Bayley and Pease-Alvarez investigated, the likelihood of an overt pronoun increases as the degree of discourse connectedness decreases. To the extent that these results are representative of other Mexican-born and Chicano children, we may expect that the use of overt pronouns in the speech of these children will pattern in the same way.

The second principle, the “principle of multiple causes,” means that it is unlikely that any single contextual factor can explain the variability observed in natural language data. For example, in Bayley and Pease-Alvarez’s study, the degree of discourse connectedness with the preceding tensed verb was not the only significant constraint on subject personal pronoun (SPP) variation. Person and number, verb type (present; preterit; imperfect, conditional, or subjunctive), immigrant generation, and speaker gender also proved to have statistically significant effects.

Studies of linguistic variation have repeatedly shown that the variables that have been closely examined are subject to many contextual conditioning factors.
To continue with the case of Spanish SPP variation, numerous factors have been shown to significantly affect speakers’ choice of a null or an overt pronoun. These include switch reference (e.g. Cameron, 1995; Otheguy, Zentella, and Livert 2007), discourse connectedness (e.g. Bayley and Pease-Alvarez 1997), semantic features of the verb (e.g. Silva-Corvalán 1994), Tense-Mood-Aspect (e.g. Silva-Corvalán 1994), potential ambiguity of the verb form (e.g. Hochberg 1986), genre (Travis 2007), singular vs. plural subjects (Cameron, 1996), and speakers’ national origin (Otheguy et al. 2007).

Two other principles, summarized by Guy (1991: 5), are critical to the variationist paradigm:

- Individual speakers may differ in their basic rate of use of a variable rule, that is, in their input probability for the rule.
- Individuals should be similar or identical in the factor values assigned to linguistic constraints on the rule. (This assumption is usually qualified to apply just to people who belong to the same speech community.)

The first principle offers a way to understand how groups of speakers who use a variant at very different rates may be regarded as members of the same speech community. For example, Wolfram found that Detroit African-Americans deleted -t,d at very different rates, depending on the social class to which they belonged, as well as on a number of linguistic factors. Table 4.2 shows his results for social class, grammatical function, and following phonological environment, expressed in percentages.

Table 4.1  Degree of discourse connectedness and overt pronoun use in Mexican immigrant and Chicano children’s Spanish.

<table>
<thead>
<tr>
<th>Degree of discourse connectedness</th>
<th>% overt pronoun</th>
<th>Varbrul weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>First degree: Continuity of subject, tense, and mood</td>
<td>12</td>
<td>.293</td>
</tr>
<tr>
<td>Second degree: Continuity of subject, different tense and/or mood</td>
<td>20</td>
<td>.405</td>
</tr>
<tr>
<td>Third degree: Subject continuity interrupted by one or more intervening clauses</td>
<td>21</td>
<td>.490</td>
</tr>
<tr>
<td>Fourth degree: Last occurrence of subject in another syntactic function</td>
<td>35</td>
<td>.607</td>
</tr>
<tr>
<td>Fifth degree: Change in narrative section or discourse topic</td>
<td>32</td>
<td>.653</td>
</tr>
<tr>
<td>Total/Input probability</td>
<td>24</td>
<td>.198</td>
</tr>
</tbody>
</table>

In these results, we can see that the rate of -t,d deletion by these speakers is affected by all three of the factors examined. When -t,d is a past tense morpheme and is followed by a vowel, the deletion rate for upper middle class speakers is only 7 percent. In contrast, lower working class speakers delete -t,d in the same environment at a 34 percent rate. When -t,d is not a past tense morpheme and the following segment is a consonant, the rate of deletion increases to 79 percent for upper middle class speakers and to a near categorical 97 percent for lower working class speakers. Note, however, that the linguistic factors have the same effect on speakers of all social classes, despite differences in the overall percentages of deletion. With respect to this aspect of the grammar members of different social classes can be said to belong to the same speech community, even though they differ in their overall rate of -t,d deletion. The speakers Wolfram studied thus provide a clear example of Labov’s definition of a speech community:

The speech community is not defined by any marked agreement in the use of language elements, so much as by participation in a set of shared norms: these norms may be observed in overt types of evaluative behavior, and by the uniformity of abstract patterns of variation which are invariant in respect to particular levels of usage. (1972b: 120–121)

Thus far, the discussion has concerned social groups rather than individuals. However, conceivably the percentages in studies such as Wolfram’s might be arrived at by averaging speakers who belonged to the same social group but who exhibited very different behavior with respect to particular linguistic variables. For example, the -t,d deletion rate of 43 percent by lower middle class speakers when the -t,d is not a past tense morpheme and the following segment is a vowel might be arrived at by combining tokens from speakers who delete -t,d at a rate

<table>
<thead>
<tr>
<th>Environments</th>
<th>Social class</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Upper middle</td>
</tr>
<tr>
<td>Following vowel:</td>
<td></td>
</tr>
<tr>
<td>-t,d is past morpheme (e.g. “missed in”)</td>
<td>7</td>
</tr>
<tr>
<td>-t,d is not past morpheme (e.g. “mist in”)</td>
<td>28</td>
</tr>
<tr>
<td>Following consonant:</td>
<td></td>
</tr>
<tr>
<td>-t,d is past morpheme (e.g. “missed by”)</td>
<td>49</td>
</tr>
<tr>
<td>-t,d is not past morpheme (e.g. “mist by”)</td>
<td>79</td>
</tr>
</tbody>
</table>

of 86 percent with an equal number of tokens from speakers who never delete -t,d in this environment. In practice, however, this does not happen. Guy (1980), for example, examined -t,d deletion in a sample of New Yorkers and Philadelphians. His results showed that, as long as a sufficient number of tokens was available (approximately 20 per cell), results for individuals closely matched the group pattern. Later studies, including work on second language acquisition of English and Hungarian (Bayley and Langman 2004), have confirmed Guy’s finding concerning the relationship between group and individual patterns of variation.

To summarize, research has demonstrated the systematic nature of much of the linguistic variation previously thought to be random. Moreover, research has shown that variable linguistic forms are constrained by multiple internal and external factors. Research has also shown that, at least with respect to major linguistic constraints, given sufficient data, individual patterns match group patterns. These insights have been gained by adopting certain methods of analysis. Perhaps most obvious of these is the focus on actual language as produced by speakers in communities rather than on linguistic intuitions, or grammaticality judgments, as has been the practice in formal linguistics. The data gathered through sociolinguistic interviews of the type pioneered by Labov (1966), the social network approach developed by James and Leslie Milroy in Belfast (Milroy 1987), or the intense participant observation exemplified by Eckert’s (2000) study of a Detroit area high school have been subject to a variety of interpretations based on different theoretical principles. In its concentration on language as used by members of the communities under study, however, research in the quantitative paradigm has remained resolutely “secular,” to use Labov’s term. Regardless of the theoretical predisposition of the researcher, work in the variationist tradition has preserved the principle of accountability (Sankoff 1990), which involves dealing with the full range of variability present in the (relatively) informal interactions of language users. Given the multitude of factors, both linguistic and social, that can potentially influence a language user’s choice of one or another variable form, adherence to the principle of accountability necessitates multivariate analysis.

2 Quantitative Analysis

The quantitative modeling of the correlations between language variation and the multiple contextual factors that promote or inhibit use of a particular variant presents a number of problems. In studies that relate variation to a single contextual factor, a simple statistical procedure such as a comparison of two means with the help of a t-test has been used (e.g. Beebe 1977). However, such a model is inadequate when multiple influences are likely to be involved. Analysis of variance is another technique that has been used (e.g. Tarone 1985) to relate variation to a single independent variable with multiple levels. It is possible to extend an analysis of variance to additional variables, but with the kind of data usually collected in studies of linguistic variation, this is hardly ever practicable. An example
should clarify why this is the case. In a study of -t,d deletion in Tejano/Chicano English (Bayley 1994), I originally hypothesized that the variation would be influenced by eleven separate independent variables, each of which had theoretical and empirical support from previous studies. The eleven independent variables were all nominal (that is to say they could be further subdivided into two or more categories) and were as follows:

Morphological class: monomorpheme, semiweak verb (e.g. left), past tense or past participle, -n’t;
Phonetic features of the preceding segment: /s/, nasal, stop, fricative, /r/, /l/;
Phonetic features of the following segment: consonant, /l/, /r/, glide, vowel, pause;
Syllable stress: unstressed, stressed;
Voicing agreement of the preceding and following segments: homophonic, heterophone;
Cluster length: CCC, CC;
Speech style: conversation, reading continuous passage, word list;
Reported first language: English, Spanish;
Current home language: English, English and Spanish, Spanish;
Gender: male, female;
Age: 14–24, over 25.

In this model there are 11 separate factor groups (independent variables) and 34 separate factors (categories). The number of possible combinations of factors (also known as cells) is 82,944. This is an extremely large number of cells for a multiple ANOVA to handle. In addition, most cells are empty, although nearly 5,000 tokens of the dependent variable – final consonant clusters – were collected for the study. This is because many combinations are linguistically impossible or highly unlikely, leaving more than 80,000 cells with missing data. Moreover, the majority of the filled cells represent only one token of the dependent variable, presence or absence of final -t,d. Algorithms for calculating ANOVA normally require equal numbers of tokens in each cell and are clearly inapplicable to such a case. Even algorithms for calculating unbalanced ANOVAs will fail when faced with such extreme distributional imbalances. ANOVA is a statistical procedure designed to deal with the balanced data that emerge from controlled experiments. It is inadequate to handle the naturally occurring data collected in studies of sociolinguistic variation.

2.1 Multivariate analysis with Varbrul

Modeling linguistic variation can be carried out by a number of statistical software packages, including the open-source program R, usually under the name of logistic regression. However, the programs known as Varbrul have been used extensively in sociolinguistics because they have been designed to handle the kind of data obtained in studies of variation. They also provide heuristic tools that allow
the investigator to modify hypotheses and reanalyze data easily. The statistical bases for the Varbrul programs are set out in Paolillo (2002) and the procedures for using the software are explained in detail in Young and Bayley (1996) and Tagliamonte (2006). Goldvarb X and Goldvarb Lion are the current versions (Sankoff, Tagliamonte, and Smith 2005, 2012). Rbrul, a version for R, which allows the researcher to include continuous as well as nominal factors and to include individual speakers and even individual words as random variables, has recently been introduced (Johnson 2009).3

A full explanation of the steps involved in carrying out a multivariate analysis with Varbrul or more recent programs is beyond the scope of this chapter. Here, the discussion will be limited to addressing several questions that arise in any study, including defining the envelope of variation, testing for significance, interpreting the results, and dealing with the program’s limitations. Readers who wish further detail should consult the extensive literature on variable rule analysis and use of the Varbrul programs (e.g. Cedergren and Sankoff 1974; Guy 1980, 1988, 1993, 2010; Johnson 2009; Paolillo 2002; Roy 2011; Tagliamonte 2006, 2007, 2012; Young and Bayley 1996).

The first steps in conducting a variationist analysis are to define the variable and the envelope of variation. That is, what forms count as instances of the variable? Are the forms that vary two ways of saying the same thing or do they have the same function in discourse? In many studies, particularly studies of phonological variation, defining the envelope of variation is unproblematic. For example, fishing and fishin’ clearly have the same referential meaning, as do west side and wes’ side. However, it becomes less obvious that variable forms meet the criterion of being two ways of saying the same thing at higher levels of linguistic structure. Varbrul has been used to analyze variation in syntax, discourse, and code-switching (e.g. Buchstaller and D’Arcy 2009; Poplack 1980; Schiffrin 1982; Weiner and Labov 1983). However, the use of variationist analysis for modeling variation above the level of phonology led to considerable controversy (Labov 1978; Lavendera 1978). As Cameron and Schwenter observe: “Given that syntactic forms occur as elements with speech acts, and given that speech acts are nearly always multifunctional, it can be difficult to discern exactly what function a syntactic variant has in discourse” (2013: 468). Like Cameron and Schwenter, Walker (2010) distinguishes between form-based and function-based definitions of the envelope of variation. The former refers to the traditional distinction between two or more ways of saying the same thing, that is, forms that are equivalent in meaning. The latter refers to function in discourse. For example, as Walker (2010: 14) notes, in some studies we may want to define the function, for example, quotative, and then examine all the forms used for this function, for example, say, go, be like, etc. The way that we define the envelope of variation is thus determined by the goals of the study.

The second issue that arises early in a study concerns specifying the factors that may potentially influence the choice of a variant. In general, it is best to be liberal at this stage, although each factor group should be based on a well-motivated hypothesis. Lucas (1995), for example, investigated the potential effects of eight
separate factor groups on the choice of a variant of the American Sign Language (ASL) sign DEAF. Her results showed that most of these groups were not statistically significant. However, the labor of coding for many factors was not expended in vain. The study demonstrated that Liddell and Johnson’s (1989) claim that variation in the form of DEAF is influenced primarily by the location of the preceding sign, a phonological constraint, is at best incomplete. Lucas also demonstrated the previously unsuspected influence on the choice of variant of the grammatical category to which DEAF belongs, a finding that was later confirmed in a much larger study based on a representative sample of the American Deaf community (Lucas, Bayley, and Valli 2001).

Once coding is complete and the data are entered into the program, Varbrul estimates the factor values (or probabilities) for each contextual factor specified (e.g. the phonetic features of the following environment or the social class to which a speaker belongs). This is done by combining the input probability \( p_0 \), the likelihood that the “rule” will apply regardless of the presence or absence of any other factor in the environment) with the applicable factor weights from each of the factors in the model \( p_1, p_2, \ldots, p_n \), according to the formula:

\[
p = \frac{p_0 \times \ldots \times p_n}{[p_0 \times \ldots \times p_n] + [(1-p_0) \times \ldots \times (1-p_n)]}
\]

The program provides a numerical measure of the strength or influence of each factor, relative to other factors in the same group, on the occurrence of the linguistic variable under investigation. Values range between 0 and 1.00. A value, or weight, between .50 and 1.00 indicates that the factor favors use of a variant relative to other factors in the same group. For example, Baugh (1983) examined -t,d deletion in African American Vernacular English (AAVE), among other variables. Among the factor groups he coded were the grammatical function of the word containing the -t,d cluster and the type of speech event from which the data were extracted. The factors in the grammatical function group were monomorphemes, semiweak verbs, and past tense forms. Baugh divided the speech events into four types, depending on the speakers’ familiarity with one another and the extent to which they participated in African-American vernacular culture. He hypothesized that participants in Type 1 events, characterized by familiarity of the speakers and shared participation in African-American vernacular culture, would favor use of vernacular forms, in this case, -t,d deletion. Conversely, he hypothesized that vernacular forms would be less likely to occur in Type 4 events, where the speakers were not well-acquainted and where AAVE was not common to all. Results for these two factor groups are shown in Table 4.3.

Baugh reported that the results for the grammatical function group were significant. Like speakers of other English dialects, speakers of AAVE are more likely to delete final -t,d when it does not carry any grammatical meaning, as is the case in monomorphemic words. They are less likely to delete -t,d when it functions as a past tense ending. Semiweak, or ambiguous, verbs, which are characterized by an internal vowel change and affixation of -t,d, have an intermediate value. The
type of speech event, however, failed to reach significance. The values for all four types of speech events hover around .5. Contrary to Baugh’s hypothesis, -t,d deletion was not affected by this factor.

In addition to calculating values or weights for each factor, Varbrul also calculates the input probability, or corrected mean, which, as noted above, is the overall likelihood that speakers will choose the variant selected as the application value (the value that counts as an application of the “rule” being investigated). In my own study of -t,d deletion in Tejano English, for example, the input probability, or corrected mean, was .469, indicating that -t,d would be likely to be deleted nearly half the time.

The program also provides several measures of goodness of fit between the model and the data. These include the total chi-square, the chi-square per cell, and the log likelihood. The total chi-square measures the degree of interaction among factors from different factor groups. The chi-square per cell figure is simply the total chi-square divided by the number of cells. The lower the chi-square per cell figure, the less likely there is interaction among factors. In general, a chi-square per cell figure of greater than 1.5 suggests that there may be an interaction between two or more factor groups. In such cases, it may be necessary to recode the data to remove the interaction. For example, rather than have separate factor groups for ethnicity and social class, it may be better to combine them. Thus two binary factor groups for African-American and Euro-American and for working and

Table 4.3  -t,d deletion by grammatical function and speech event type in African American Vernacular English.

<table>
<thead>
<tr>
<th>Factor group</th>
<th>Factor</th>
<th>Varbrul weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grammatical function</td>
<td>No grammatical function, e.g. past</td>
<td>.683</td>
</tr>
<tr>
<td></td>
<td>Ambiguous function, e.g. lost</td>
<td>.523</td>
</tr>
<tr>
<td></td>
<td>Past tense function, e.g. passed</td>
<td>.353</td>
</tr>
<tr>
<td>Speech event type</td>
<td>Type 1. Familiar participants, all of whom are natives of African-American vernacular culture</td>
<td>.482</td>
</tr>
<tr>
<td></td>
<td>Type 2. Participants are not well acquainted, but all are members of African-American vernacular culture</td>
<td>.523</td>
</tr>
<tr>
<td></td>
<td>Type 3. Participants are well acquainted, but do not share AAVE</td>
<td>.499</td>
</tr>
<tr>
<td></td>
<td>Type 4. Participants are not well acquainted and AAVE is not common to all</td>
<td>.496</td>
</tr>
</tbody>
</table>

Source: Baugh 1983: 98.
middle class speakers might be combined to form a single factor group consisting of African-American working class, African-American middle class, Euro-American working class, and Euro-American middle class. Finally, Varbrul provides the log likelihood statistic, also a measure of goodness-of-fit. Figures closer to zero represent better models than log likelihoods further removed from zero (see Young and Bayley 1996: 272–273).

The factor values and input probability reported in a Varbrul run provide useful information. They are insufficient, however, to confirm or disconfirm the hypotheses that led to the inclusion of the factors in the original model. Our goal is to develop the most parsimonious model that best accounts for the data. To achieve this goal, we need to test whether the results are statistically significant or whether there is a good likelihood that they might be due to chance. In Varbrul, achieving the most parsimonious model involves testing whether entire factor groups significantly contribute to the overall goodness-of-fit of the model and testing whether factors within groups differ significantly from one another. Naturally, factors should only be combined where there is linguistic or social justification for doing so. Guy (1980), for example, in a study of -t,d deletion, found that the Varbrul weights for regular past tense verbs and past participles did not differ significantly from one another. He therefore combined these forms on the basis of their common underlying morphological structure. It would have made little sense, however, to combine following consonants and vowels, which not only contrast phonologically but also have been found in other studies to differ significantly in their effect on deletion.

### 2.2 Significance testing with Varbrul

Varbrul provides a means for testing whether a particular factor group contributes significantly to the model of variation by means of step-up/step-down analysis. This involves performing a run with only one factor group and then adding each of the other factor groups to the analysis, one at a time, until all factor groups are included. When the full model with all factor groups is reached, Varbrul then removes one factor group at a time until only one remains. During each individual run, the factor weights and the log likelihood are calculated. At the end of the analysis, the program outputs a file with the details of each run and an indication of the best stepping-up run and the best stepping-down run. The factor groups included in the best stepping-up and stepping-down runs should be the same. These are the factor groups that are significant at or above the .05 level. Factor groups not included in these runs do not contribute significantly to the variation. The factor weights calculated during these runs are used to report the results of the study.

In addition to testing the significance of factor groups, it is also necessary to test whether individual factors within groups differ significantly from one another. This calculation is done by comparing the log likelihoods of two Varbrul runs, one with the factor coded as is, and one with a recode in which the factor is eliminated.
or combined with another factor. The following test is used in order to determine whether the difference between the Varbrul weights is significant:

\[ \chi^2_{\nu\alpha} = -2 \times (\log \text{likelihood}_1 - \log \text{likelihood}_2) \]

That is, twice the difference in the log likelihoods of the separate analyses performed (1) with and (2) without the factor in question asymptotically approximates a chi-square distribution where \( \nu \) is the number of degrees of freedom and \( \alpha \) is the probability that the effect attributed to the factor in question is greater than would be expected by chance. The degrees of freedom used in calculating the above chi-square statistic are the difference between the degrees of freedom in the two runs. If only one factor is eliminated, there will only be a single degree of freedom used in testing for the significance of that factor.

### 2.3 Interpreting the results of Varbrul analysis

Varbrul enables us to give precise and replicable measures of the strength of a wide range of contextual influences on the choice among variable linguistic forms. However, simply reporting results is not sufficient. Rather, our goal is to understand why we achieve the results that we do. Take the effect of grammatical category on the likelihood of -t,d deletion as an example.

A number of explanations have been proposed for the pattern for grammatical category seen in studies of -t,d deletion conducted by Wolfram (1969), Guy (1980), Baugh (1983), and others. At first glance, it appears that the functional load carried by final -t,d might provide an adequate explanation. The meaning is not changed when a speaker says *jus’ me* instead of *just me*, but it is not so easy to determine whether *I miss/Ø/ my friend* refers to a missed past appointment or to an ongoing emotional state. Guy (1980), however, showed that the rate of -t,d deletion from past participles did not differ significantly from the rate of deletion from past tense forms, despite the fact that past participles carry a lighter functional load.

Guy’s (1980) finding that -t,d is deleted from past participles and past tense verbs at the same rate suggests that we must look beyond functionalism for an explanation of the ordering of grammatical constraints. A number of possible explanations have been proposed. For example, the grammatical categories that are subject to -t,d deletion are characterized by different internal morphological boundaries, and regular past tense forms and past participles have the same internal structure. The results for grammatical category can thus be explained by a boundary constraint on -t,d deletion. A deletion rule applies freely when no internal boundary is present, as is the case with monomorphemes such as *past*. Deletion is inhibited somewhat by the formative boundary in semiweak verbs, and strongly inhibited by the inflectional boundary in regular past tense verbs and past participles (Guy 1993).

Other explanations have also been advanced. Guy (1991) proposed an exponential model of constraints to explain the relationships observed in the grammatical
category factor group, which related the retention of past tense, semiweak, and monomorphemic clusters in the ratio of $x : x^2 : x^3$. He explained this ratio as a consequence of the multilevel architecture of lexical phonology (Kiparsky 1985), whereby the three types of clusters are subject to one, two, or three passes of a deletion rule.

The purpose here is not to argue which of these explanations is correct. The point is to demonstrate that the results achieved by the use of Varbrul – or any other statistical program – do not in and of themselves provide explanations about linguistic structure or the meaning of the social distribution of linguistic variants. Rather, explanations must be sought in linguistic theory and in our understanding of the history and social structure of the communities we study.

2.4 Limitations of Varbrul

Varbrul has proven to be an extremely productive tool for the study of linguistic variation. However, it has a number of limitations. First, Goldvarb, the most widely used version, has been virtually unchanged since it was introduced in 1991. However, we have seen considerable advances in computing power and statistical theory since that time. Second, because the use of the program has been limited to research in sociolinguistics, Varbrul users often find themselves without support. Third, Varbrul does not provide a convenient way to test for interactions among factor groups. In the case of properly defined linguistic factors, interaction may not be a problem (but see Sigley 2003). However, social factors such as class and ethnicity often interact. To return to the example of -t,d deletion in English, it is possible – and sometimes desirable – to control such interactions within Varbrul by combining class and ethnicity in a single factor group. Whether such a procedure is desirable, however, depends on the goals of the study. If potential interactions among various social factors are a major interest of the investigation, Varbrul is not the most suitable tool. Finally, Goldvarb can only handle nominal variables. However, a number of variables of interest are continuous. For example, in studies of second language acquisition, the amount of time learners have spent in an L2 environment needs to be considered. Time, however, is continuous. The same consideration applies to studies of language change.5

3 General Logistic Regression Models

In recent years, a number of researchers have used the logistic regression modules in commercially available statistical packages to overcome some of the limitations of Varbrul. Berdan (1996), for example, used the logistic regression module in SPSS to reanalyze Schumann’s (1978) longitudinal data on the acquisition of English negation by “Alberto,” a Costa Rican immigrant to the United States. Schumann’s original study, which has been influential in second language acquisition research, provided the basis for his acculturation model and for the concept of fossilization.
According to Schumann, Alberto showed very little progress in the acquisition of negation. He concluded that during the course of the study, which lasted a year, his subject “remained in the first [no + V] stage” (1978: 65).

In his reanalysis, Berdan was able to show that Alberto did in fact make progress toward the target language. Although he used no + V to express negation throughout the year, this basic structure alternated with the more target-like unanalyzed don’t, which became more frequent over time. Berdan used the logistic regression module in SPSS rather than Varbrul for two main reasons. First, the general model enables the researcher to represent independent variables as continuous, “[a] procedure [that] allows for an intuitive representation of time – the variable that is integral to the modeling of learning or language acquisition” (Berdan 1996: 212). Second, the logistic regression module allows the researcher to calculate the main effects for independent variables (factor groups in Varbrul) as well as to calculate interactions among them. Since the interaction of linguistic variables with time and with style was a main focus of Berdan’s study, the general logistic model proved the more useful tool.

A further example comes from the previously mentioned large-scale study of variation in American Sign Language (ASL) that investigated phonological, morphosyntactic, and lexical variation among signers in different regions of the United States (Lucas et al. 2001). Lucas et al. included a small-scale study of SPPs with so-called “plain verbs” whose form gives no indication of person or number (see Padden 1988). Lucas et al. wished to compare the patterning of null and overt subject pronouns in ASL with the patterning in languages that mark person and number throughout the verbal paradigm.

The corpus used for this part of the study consisted of 19 narratives that occurred in sociolinguistic interviews, which yielded 429 tokens, admittedly a small sample. We coded for a range of factors: English influence (e.g. use of English rather than ASL word order), person/number, coreference with the subject of the preceding clause, constructed action or dialog, age (with age groups determined by changes in deaf education policies), and gender. The data were analyzed with Goldvarb. Table 4.4 shows all of the significant factor groups.

Subsequently, I reanalyzed the same data set using the logistic regression procedure in SPSS. Table 4.5 shows partial SPSS output.

A full exploration of the results obtained by SPSS, of the procedures for evaluating different models, or of the mathematical basis for logistic regression is beyond the scope of this chapter. For a detailed explanation of the issues involved, those interested may consult Rietveld and van Hout (1993). For our purposes here, the most important consideration is that both SPSS and Varbrul identified the same factor groups as statistically significant.

We can see in the first column on Table 4.5 that logistic regression, like linear regression, gives regression coefficients. The second column (S.E.) is the standard error, which is used in calculating the Wald statistic (column 3). The Wald statistic is used to determine the significance of a regression coefficient. It is the squared value of the regression coefficient divided by the standard error and has a chi-square distribution. The output gives the significance (Sig) for a variable (factor
**Table 4.4** Null pronoun variation in ASL: Varbrul results (application value: overt pronoun).

<table>
<thead>
<tr>
<th>Factor group</th>
<th>Factor</th>
<th>Varbrul weight</th>
<th>%</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>English influence</td>
<td>Yes</td>
<td>.763</td>
<td>63</td>
<td>52</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>.459</td>
<td>31</td>
<td>377</td>
</tr>
<tr>
<td>Person/number</td>
<td>1 sg.</td>
<td>.610</td>
<td>41</td>
<td>261</td>
</tr>
<tr>
<td></td>
<td>2/3 pl.</td>
<td>.471</td>
<td>39</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td>2 sg.</td>
<td>.456</td>
<td>38</td>
<td>34</td>
</tr>
<tr>
<td></td>
<td>3 sg.</td>
<td>.282</td>
<td>21</td>
<td>95</td>
</tr>
<tr>
<td></td>
<td>1 pl.</td>
<td>.210</td>
<td>13</td>
<td>15</td>
</tr>
<tr>
<td>Coreference with subject of preceding clause</td>
<td>Switch reference</td>
<td>.631</td>
<td>46</td>
<td>169</td>
</tr>
<tr>
<td></td>
<td>Same reference</td>
<td>.414</td>
<td>28</td>
<td>260</td>
</tr>
<tr>
<td>Age</td>
<td>55+</td>
<td>.602</td>
<td>42</td>
<td>136</td>
</tr>
<tr>
<td></td>
<td>15–54</td>
<td>.452</td>
<td>32</td>
<td>293</td>
</tr>
<tr>
<td>Gender</td>
<td>Female</td>
<td>.585</td>
<td>41</td>
<td>218</td>
</tr>
<tr>
<td></td>
<td>Male</td>
<td>.413</td>
<td>29</td>
<td>211</td>
</tr>
<tr>
<td>Constructed action</td>
<td>None</td>
<td>.571</td>
<td>40</td>
<td>224</td>
</tr>
<tr>
<td></td>
<td>Action</td>
<td>.422</td>
<td>29</td>
<td>205</td>
</tr>
<tr>
<td>TOTAL</td>
<td>Input</td>
<td>.325</td>
<td>35</td>
<td>429</td>
</tr>
</tbody>
</table>

Notes: $\chi^2$/cell = 0.9857; all factor groups significant at $p < .05$. Source: Lucas et al. (2001).

...
### Table 4.5  (Partial) SPSS output for ASL subject pronoun data.

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>S.E.</th>
<th>Wald</th>
<th>df</th>
<th>Sig</th>
<th>R</th>
<th>Exp(B)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACTION(1)</td>
<td>.2897</td>
<td>.1200</td>
<td>5.8242</td>
<td>1</td>
<td>.0158</td>
<td>.0836</td>
<td>1.3360</td>
</tr>
<tr>
<td>AGE(1)</td>
<td>-.3182</td>
<td>.1229</td>
<td>6.7072</td>
<td>1</td>
<td>.0096</td>
<td>-.0927</td>
<td>.7274</td>
</tr>
<tr>
<td>COREF(1)</td>
<td>.4509</td>
<td>.1184</td>
<td>14.5067</td>
<td>1</td>
<td>.0001</td>
<td>1.5111</td>
<td>1.5697</td>
</tr>
<tr>
<td>ENGINF(1)</td>
<td>-.6647</td>
<td>.1715</td>
<td>15.0211</td>
<td>1</td>
<td>.0001</td>
<td>-.1542</td>
<td>.5144</td>
</tr>
<tr>
<td>GENDER(1)</td>
<td>-.3874</td>
<td>.1205</td>
<td>10.3420</td>
<td>1</td>
<td>.0013</td>
<td>-.1234</td>
<td>.6788</td>
</tr>
<tr>
<td>PERNUM</td>
<td>23.7637</td>
<td>4</td>
<td>.0001</td>
<td>1.697</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PERNUM(1)</td>
<td>.8848</td>
<td>.2490</td>
<td>12.6290</td>
<td>1</td>
<td>.0004</td>
<td>.1393</td>
<td>2.4226</td>
</tr>
<tr>
<td>PERNUM(2)</td>
<td>.3182</td>
<td>.4632</td>
<td>.4718</td>
<td>1</td>
<td>.4922</td>
<td>.0000</td>
<td>1.3746</td>
</tr>
<tr>
<td>PERNUM(3)</td>
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<td>.6548</td>
<td>1.9108</td>
<td>1</td>
<td>.1669</td>
<td>.0000</td>
<td>.4045</td>
</tr>
<tr>
<td>PERNUM(4)</td>
<td>-.5247</td>
<td>.3025</td>
<td>3.0078</td>
<td>1</td>
<td>.0829</td>
<td>-.0429</td>
<td>.5917</td>
</tr>
<tr>
<td>Constant</td>
<td>-.4614</td>
<td>.2480</td>
<td>3.4622</td>
<td>1</td>
<td>.0628</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Term Removed</th>
<th>Log Likelihood</th>
<th>(-2 \log \text{LR})</th>
<th>df</th>
<th>Significance of Log LR</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACTION</td>
<td>-238.954</td>
<td>5.941</td>
<td>1</td>
<td>.0148</td>
</tr>
<tr>
<td>AGE</td>
<td>-239.352</td>
<td>6.738</td>
<td>1</td>
<td>.0094</td>
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<tr>
<td>COREF</td>
<td>-243.381</td>
<td>14.795</td>
<td>1</td>
<td>.0001</td>
</tr>
<tr>
<td>ENGINF</td>
<td>-243.872</td>
<td>15.777</td>
<td>1</td>
<td>.0001</td>
</tr>
<tr>
<td>GENDER</td>
<td>-241.298</td>
<td>10.629</td>
<td>1</td>
<td>.0011</td>
</tr>
<tr>
<td>PERNUM</td>
<td>-249.699</td>
<td>27.432</td>
<td>4</td>
<td>.0000</td>
</tr>
</tbody>
</table>

### 3.1 Mixed models

Recently, Johnson (2009) and Gorman and Johnson (2013) argued that mixed-effects models are more appropriate for sociolinguistic data than the fixed effects models that Goldvarb handles. They explain that mixed-effects models “in addition to the familiar stratum of fixed-effects predictors, [allow for] a set of predictors called random effects. . .” (Gorman and Johnson 2013: 223). In particular, they argue that studies of variation need to take into account individual speaker and word effects. As Guy (2010) notes, however, the arguments for considering individual speakers and words in variationist models are controversial and the issues go beyond statistics.

As noted above, a similarity of constraint effects across speakers regardless of the rate at which a variable is used is a basic criterion for speech community membership. Labov (1966), for example, found that New Yorkers produced more tokens of postvocalic /r/ in more formal styles, regardless of their overall rate of
use of the prestige variant. In a similar manner, Guy (1980) found that all of the New Yorkers and Philadelphians he studied were more likely to delete /t/ or /d/ from monomorphemes than from past-tense forms. The number of examples could easily be multiplied based on studies conducted in numerous communities. The proposal that individual speakers should be considered as a random effect thus involves a major departure from sociolinguistic theory.

Gorman and Johnson’s proposal to include the individual word as a random factor also represents a major departure that is clearly at odds with the neogrammarian concept of regular sound change. Nevertheless, since words occur with widely varying degrees of frequency, their proposal does provide a way to test exemplar theory (Bybee 2001).

Gorman and Johnson (2013) illustrate the advantage of mixed-effects models by comparing fixed- and mixed-effects models of variation in the (ing) variable by Polish L1 immigrant youth in London (Schleef, Meyerhoff, and Clark 2011). After exclusion of 207 tokens realized as overt dorsal stops, the data set consisted of 718 tokens from 21 speakers. The fixed-effects model identified three significant linguistic constraints (preceding segment, grammatical category, lexical frequency) and three social constraints (gender, English proficiency, speakers’ friendship network). In the mixed-effects model, which included a random effect for individual speaker, the three linguistic factor groups were still significant at \( p < .0001 \). However, as shown in Table 4.6, the social factor groups failed to reach significance.

### Table 4.6  Comparison of between-speaker effects in fixed-effects and mixed-effects regression models for (ing) among Polish-English bilinguals.

<table>
<thead>
<tr>
<th></th>
<th>Fixed-effects model</th>
<th>Mixed-effects model</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>log-odds</td>
<td>p-value</td>
</tr>
<tr>
<td>male</td>
<td>-0.557</td>
<td>1.9e-04</td>
</tr>
<tr>
<td>female</td>
<td>0.547</td>
<td>0.381</td>
</tr>
<tr>
<td>little English proficiency</td>
<td>-0.187</td>
<td>1.5e-06</td>
</tr>
<tr>
<td>good English proficiency</td>
<td>-0.678</td>
<td>1.5e-06</td>
</tr>
<tr>
<td>very good English proficiency</td>
<td>0.865</td>
<td></td>
</tr>
<tr>
<td>mostly Polish friendship network</td>
<td>0.648</td>
<td>0.029</td>
</tr>
<tr>
<td>mixed friendship network</td>
<td>0.266</td>
<td>0.286</td>
</tr>
<tr>
<td>mostly English friendship network</td>
<td>-0.914</td>
<td>-0.969</td>
</tr>
</tbody>
</table>

*Source: Gorman and Johnson (2013) Table 11.3.*
Gorman and Johnson’s comparison illustrates the advantages of considering individual speakers within a mixed-effects model. Note, however, the mixed-effects model does not diverge greatly from the results for the linguistic factors, even with a small data set.

Space does not permit a discussion of the details for performing logistic regression with Rbrul or R. For the purposes of this chapter, it is perhaps sufficient to note that contemporary mixed-effects models provide a number of advantages over the fixed-effects models that Goldvarb is limited to. However, although Goldvarb has limitations, there are many cases where partitioning the data into discrete groups makes a great deal of sense. Finally, as Roy (2011) observes in his comparison of Goldvarb and more recent models, including mixed-effects models:

Does the statistical model matter? If we are looking at only the Grammar and we have enough data (more than 20 tokens per context), then, no, the model does not matter. With fewer than 20 tokens per context, then the differences in the algorithms matter most and the analyst has to decide whether an approach which accounts for the number of tokens in each context (Goldvarb X) or one which does not (GLM LR/logistic mixed-effects) is more appropriate given a particular research situation.

4 Multivariate Analysis: Summary

Numerous examples from studies of linguistic variation have shown that multivariate analysis is necessary to understand the complex array of factors that may influence the choice of one or another linguistic variant and the systematicity that often underlies variable language production. The choice then, is not whether to do multivariate analysis, but which particular model to use. Within sociolinguistics, Varbrul has been the preferred tool. As Berdan notes, “Varbrul has ... proven to be a powerful analytic device for identifying significant linguistic, social, and interactional factors that differentiate or condition probabilities associated with linguistic variables” (1996: 209). Nevertheless, although Varbrul can serve effectively to model variation among discrete linguistic factors, it is not appropriate where interaction, either among non-linguistic factors, or between non-linguistic and linguistic factors, is a main focus of the study. In that case, a more general logistic regression model is preferable. Moreover, as Gorman and Johnson (2013) show, in some cases the mixed-effects models available in R and elsewhere prevent us from mistakenly claiming significance for social factors or from inflating significance levels. Finally, there is the question of audience. Most sociolinguists are familiar with Varbrul. However, the Goldvarb program and the terminology associated with it are unfamiliar to readers outside of quantitative sociolinguistics.

Therefore, use of the logistic regression modules in SPSS or R, in addition to enhanced capabilities, is preferable if variationists wish to present the results of their studies to audiences outside of sociolinguistics.
5 Future Directions

Chambers (2009) and Tagliamonte (2012) describe in detail many of the achievements of five decades of research within the variationist tradition. It is now beyond dispute that much of the linguistic variation that was previously thought to be random is indeed systematic, and that eloquence, logic, and clarity of expression are not the particular properties of standard languages. Moreover, although public attitudes have been slow to change, work on socially stigmatized varieties, particularly the varieties used by ethnic minorities and members of the working class, has served as important evidence to combat popular misperceptions of such varieties as being illogical and their speakers as incapable of mastering national or regional standard varieties. On the contrary, sociolinguistic analysis has revealed beyond any doubt that these varieties are orderly, complex, and complete linguistic systems.

Despite these substantial achievements, work in quantitative sociolinguistics has focused less on exploring the meaning of linguistic variation to the members of the communities studied than on demonstrating the systematic nature of variability at an abstract level and establishing correlations among linguistic variables and traditional social categories such as age and class. Studies have appeared, however, that not only demonstrate the correlations between the use of linguistic variables and social categories, but also show how speakers deploy their linguistic resources, along with other symbolic resources, to construct and reinforce the social categories to which they belong. Eckert’s (2000) work on high school students in the Detroit area and Mendoza-Denton’s (2008) study of Chicana and Mexican immigrant adolescents in California are two important examples of this direction in research within the quantitative paradigm, while recent work by Bonnici (2010) has shown the insights that can be gained into post-colonial English varieties by combining quantitative and ethnographic analysis.

Traditionally, variationist studies have grouped participants according to predetermined social categories such as class, ethnicity, gender, and age and examined possible correlations between these non-linguistic factors and use of socially salient linguistic variables. Rather than grouping participants by predetermined social categories, Eckert and Mendoza-Denton, through intensive ethnographic investigation, sought to discover the social categories that participants themselves found meaningful. At times, these categories overlapped with the categories usually considered in variationist studies, but at other times they differed considerably. For example, Mendoza-Denton found six distinct groups among the Mexican immigrant and Chicana students in a California high school, ranging from immigrant piporras (“country girls”), who tended to preserve traditional rural Mexican values, to the mostly non-immigrant “Latina jocks,” who participated in the school culture, especially sports, and tended to accept the values of the larger society that the school represented. Moreover, different group affiliation was associated with differing patterns of language use, including different Varbrul weights for raising of /ɪ/, the variable Mendoza-Denton examined in detail.
Clearly, much would have been lost by simply grouping speakers according to ethnicity or immigrant generation.

Although ethnographically oriented studies of variation represent a relatively recent trend, they are certainly not unprecedented. As Eckert (2012) points out, the concern with local identity and participants’ views of that identity was a central focus of one of the earliest studies in the quantitative tradition, Labov’s (1963) examination of centralization of (ay) and (aw) by residents of Martha’s Vineyard in Massachusetts. In this sense, some of the more interesting recent work within the quantitative paradigm represents a return to the roots of the discipline.

In summary, quantitative analysis has enabled us to obtain numerous insights into linguistic structure, the social meaning of linguistic variation, and the nature of language change. From a social perspective, the methods of multivariate analysis developed in sociolinguistics have been particularly important in demonstrating the systematic nature of stigmatized language varieties, including AAVE, Black ASL, and popular Puerto Rican and US Spanish, among many others. Current work, in which quantitative analysis is informed by ethnographic fieldwork, promises further insights into the ways in which language users employ variation to construct social identities. Finally, thanks to the widespread availability of powerful statistical software packages, sociolinguists now have many options at their disposal. As the field becomes more experienced in quantitative methods, and particularly in the range of available multivariate applications, new creative possibilities for quantitative analysis will doubtless open up.

**ACKNOWLEDGMENT**

I thank Richard Cameron for valuable comments on an earlier draft of this chapter.

**NOTES**

1 R may be downloaded from www.r-project.org/.
3 Goldvarb X and Goldvarb Lion may be downloaded from /individual.utoronto.ca/tagliamonte/goldvarb.htm. Rbrul may be downloaded from www.danielezrajohnson.com/rbrul.html.
4 Guy (1988) and Sigley (2003) discuss how to deal with interactions in Varbrul.
5 In some cases it is more reasonable to group participants by age groups. In a study of variation in Black ASL in the American South, for example, McCaskill et al. (2011) grouped signers according to whether they had attended school before or after desegregation, which determined the extent to which they had been exposed to white ASL varieties.

6 For an explanation of how to convert logistic regression coefficients to factor weights and factor weights to regression coefficients, see Morrison (2005) and Roy (2011).

7 There are, of course, important exceptions to this traditional practice, including Labov’s (1972a) work with the Jets and the Cobras in New York.

REFERENCES


Sociophonetics, the interface between sociolinguistics and phonetics, has grown rapidly in visibility and influence over the past decade. It has expanded from its initial purview in vowel quality to prosody, consonantal quality, and, incipiently, voice quality. It has also ventured occasionally into speech perception. Most recently, it is experiencing a transformation from being seen as a methodological approach to becoming a theoretical discipline with links to cognitive and neurolinguistic sciences. In this respect, it can and should alter the direction of sociolinguistics as a whole.

1 Scope of Sociophonetics

Sociophonetics situates itself within what Docherty et al. (1997) call “bottom-up,” or empirical, approaches to language. It operates by conducting studies of human linguistic behavior and constructing models based on the results. The two areas of linguistics that it weds, sociolinguistics and phonetics, are both largely empirical in practice. Some conflict arises in that sociolinguistics aims for naturalness, leading to a focus on conversational speech and representativeness of subjects within communities, while phonetics typically prizes replicability in experiments, focusing on speech in laboratory settings. Sociophonetics attempts to respect both priorities by developing practices for field use that are designed for near-replicability.

Within sociolinguistics, another dichotomy has been noted by such scholars as Hymes (1974) and Trudgill (1978) involving ways to combine insights from linguistics and sociology. One approach, Hymes (1974: 196) contended, addresses “the nature of linguistic rules, the nature of sound change.” These issues stem
from the traditional concerns of linguistics: How is language structured (either logically or psychologically)? How and why does language vary and change? The other approach, asserted Hymes, is “concerned with social as well as referential meaning,” issues that are essentially sociological in nature. Both linguistic and social information are crucial to each approach, but they differ on the research questions that they ultimately address.

In what initially appears as an unrelated discussion, Eckert (2005) assessed the historical development of sociolinguistics as consisting of three waves. The first wave of studies correlated linguistic variables with broad demographic categories. The second wave was more ethnographic, examining social networks. The third wave has to do with how speakers use stylistic variation to project identities. However, Eckert was actually privileging the sociological side of sociolinguistics because she depicted the ultimate aim of each wave as addressing social and referential meaning. She cast aside the more linguistic issues. In contrast, sociophonetics represents a continuation of the side of sociolinguistics that addresses linguistic structure and its role in linguistic change. It views the adjustments people make in their speech depending on social settings as clues to the cognitive organization of language and to how language change occurs. In fact, it is this cognizance of social factors that sets sociophonetics off from other branches of linguistics that examine the cognition of language.

For many years, sociophonetics was a term used occasionally to describe a loosely connected assortment of studies. Phoneticians used it to refer to any kind of experimental phonetic study that involved dialectal or social variation. In sociolinguistics, the name was seldom used, but it was generally understood to mean instrumental analysis. This sort of work complemented traditional auditory transcription, a mainstay of dialect geography and much sociolinguistic work. It comprised spectrographic analysis and perception experiments. It was inaugurated by Labov, Yaeger, and Steiner (1972), who demonstrated that vowel formant analysis was possible and practical for studies of variation. Until the early 1990s, most sociophonetic work within sociolinguistics was conducted by William Labov and his students and largely aimed at discerning shifting vowel patterns. Since then, however, it has grown in the numbers of practitioners, the kinds of variables examined, and the theoretical issues addressed. Two graduate-level textbooks, Thomas (2011) and Di Paolo and Yaeger-Dror (2011), have appeared recently, as well as the collection in Preston and Niedzielski (2010). The gap between phonetic and sociolinguistic conceptions of sociophonetics has diminished.

Nevertheless, there is still plenty of room for growth. Acoustic techniques have been applied extensively to vowel variation in English (e.g. Labov et al. 1972; Thomas 2001; Labov, Ash, and Boberg 2006) and to a lesser extent in Dutch (e.g. van Heuven et al. 2002; Adank et al. 2007) and other languages. Acoustic study of variation in consonantal quality has lagged, partly because the techniques have not been refined as much and partly because sociophonetics has developed largely in languages for which vowels vary the most. Within prosody, studies of rhythm and intonation have finally become commonplace. Intonation has received especially detailed attention for German (e.g. Atterer and Ladd 2004; Kügler 2004),
though Spanish (e.g. Willis 2007) and other languages have also seen investigation. Voice quality variation awaits concerted inquiry.

Perhaps the most provocative strain of current sociophonetic research involves perception experiments and their use in examining the cognition of variation. Such experiments can involve comparing the abilities of different listeners to identify dialects they hear in stimuli, testing the intelligibility of different dialects to listeners, and investigating how listeners shift their perception depending on what they are told about a voice. Experiments involving sociolinguistic variants can also be used to test the cognition of phonology. Exemplar Theory (e.g. Johnson 1997) fits well with sociolinguistic theory in that it holds that language users retain much latent knowledge of where and from whom they heard linguistic variants. Perception experiments using sociolinguistic variants offer ways of testing Exemplar Theory and thereby the cognitive bases of language.

2 Vowel Analysis

Sociophonetics began with acoustic analysis of vowels, notably in Labov et al. (1972). Most vowel analysis focuses on the frequencies of the first two or three formants. The vocal tract may make a single long cavity from which all resonances are derived, but whenever the tongue makes a constriction, it divides the vocal tract into two or more cavities, each with its own resonances. Nasalization introduces another cavity, the nasal cavity, with its own resonances. The frequency of the first formant (F₁) is correlated inversely with the height of the vowel. The frequency of the second formant (F₂) is correlated directly with how front a vowel is. Lip rounding tends to lower formants, but its effects vary from vowel to vowel. Besides formants, vowel duration is occasionally analyzed to ascertain factors such as phonological vowel length, effects of consonantal contexts, and rate of speech effects.

Measurement of vowel formants is largely carried out using linear predictive coding, or LPC (Atal and Hanauer 1971). LPC is a mathematical process that estimates where peaks in the spectrum are. Experience in adjusting LPC settings is necessary to minimize measurement errors, but when used judiciously it can give reliable readings. Figure 5.1 shows a spectrogram with a formant track overlaid. See Thomas (2011) for discussion of non-LPC ways to estimate formants.

Where to take readings within vowels is another issue, depending on what a researcher is trying to demonstrate. Sometimes a single measurement at the center of the vowel or where F₁ or F₂ reaches an extreme value is sufficient. At other times, such as for examining vowel dynamics (diphthongization, triphthongization) or coarticulation with neighboring segments, two or more measurement points are needed. For some trajectory analyses, several measurement points may be taken, though two or three are more usual. The measurements may be spaced evenly between the onset and offset of the vowel, or they may be taken a certain number of milliseconds from the onset and/or offset. Measurements at the onset and offset themselves are useful for comparisons of consonantal contexts.
Sociophonetics

For intra-speaker studies, such as comparisons of speaking styles or determining constraints on variation, the formant measurements obtained can usually be taken at face value. However, for comparisons of different speakers, it is necessary to normalize the measurements. Because different speakers have different vocal tract lengths, their formant values for the “same” vowel will differ. Normalization makes the values comparable. Our auditory system also has some means of fixing the identity of vowels from different speakers, which is what allows us to understand each other regardless of physiological differences. Exactly how we accomplish it is not obvious, but numerous mathematical normalization techniques, based on different assumptions, have been developed. It is important to remember that a “perfect” normalization method does not exist. Each technique has advantages and disadvantages, based largely on the assumptions behind it. The most important assumption is whether a vowel is normalized based on information contained within it or in reference to other vowels. The former is called vowel-internal normalization, and the latter is called vowel-external. One well-known vowel-internal technique, proposed by Syrdal and Gopal (1986), involves converting formant and fundamental frequency ($F_0$) values from Hertz to Bark and then taking the $F_1-F_0$ value to gauge vowel height and the $F_3-F_2$ value to gauge vowel advancement. A variant that eliminates the problem of $F_0$ variation (see Thomas 2011: 163) uses Bark-converted $F_3-F_1$ and $F_3-F_2$ to gauge height and advancement, respectively. Several vowel-external techniques are in widespread use. One

![Spectrogram with superimposed LPC formant track.](image)

**Figure 5.1** Spectrogram with superimposed LPC formant track.
developed by Lobanov (1971) normalizes based on the mean and standard deviation of values for each formant. Those developed by Nearey (1977) compute centroid values for $F_1$ and $F_2$ based on several or all the vowels and then normalize individual values from the centroids. These methods operate best when all vowels are included, though they can perform adequately with only a selection of the vowels. A newer method developed by Fabricius, Watt, and Johnson (2009) computes a centroid comprising both $F_1$ and $F_2$ by setting the minimum $F_1$ value and maximum and minimum $F_2$ values based on the most [i]-like vowel in the vowel system and the maximum $F_1$ value based on the lowest vowel. All of the above methods are speaker-internal – that is, normalization of each speaker is conducted separately. A speaker-external normalization, for which a centroid for a large number of speakers is calculated, was used by Labov et al. (2006).

Several reviews have evaluated normalization methods (see Hindle 1978; Disner 1980; Adank et al. 2004; Clopper 2009). They generally favor vowel-external methods, especially that of Lobonov (1971). Certain assumptions may determine which techniques are rated most favorably. There are four basic aims of normalization, as follows (the first three from Disner 1980):

1. Reducing inter-speaker variance that results from physiological differences.
2. Preserving linguistic (and dialectal) differences.
3. Distinguishing the contrasting vowels of a language/dialect.

Phoneticians working with vowel normalization, such as Rosner and Pickering (1994), are often concerned only with the last criterion. This aim is usually the least important for sociolinguists, who are concerned with determining how language and society are correlated. The primary ones for sociolinguists are the first two: a technique must filter out formant influences due to physiology while preserving the effects of lectal differences. Accordingly, to be useful for sociolinguists, normalization should satisfy those two aims. Most reviews have focused on how well physiological differences are filtered out and they have generally favored vowel-external methods. Nevertheless, vowel-internal techniques can be useful for examining factors that vowel-external methods cannot handle, such as vocal setting (habitual shifting of an articulator in some direction), comparison of language varieties with highly divergent vowel inventories or configurations, and studies for which measurement of all vowels for all subjects is impractical.

The most common application of vowel formant analysis is in ascertaining the linguistic constraints on diachronic vowel shifting. William Labov has led this effort, notably in Labov et al. (1972, 2006) and Labov (1991, 1994, 2001). Although Labov and his colleagues analyzed published descriptions of vowel shifts in other languages, their main focus was on developments in dialects of English. Labov and his colleagues argue that vowels behave differently depending on whether or not they lie on the periphery of the vowel envelope. They propose a new phonological feature, [±peripheral], for this distinction, and they formulated a series of peripherality-dependent constraints on vowel shifting. The first three principles
Acoustic analysis of vowels is useful for nearly any sociolinguistic study involving vocalic variables. Hindle (1980) demonstrated how acoustic data can be correlated with stylistic differences in one person’s speech. Labov’s work in Philadelphia (Labov 2001, 2010) related normalized vowel formant data to various demographic and social network factors. Dodsworth (2008) showed how such data can serve as indices of attitudinal factors in a community-of-practice study. Ethnic variation and language contact influence can also be illustrated with vowel formant data. Figure 5.2 juxtaposes plots of mean values of the English vowels, without normalization, of two Mexican-American women from a southern Texas community. The speaker on the left was Spanish-dominant. The speaker on the right, from a younger generation, was a balanced bilingual. Differences in their realizations of the bit, bat, and but vowels appear to stem from Spanish interference in the older woman’s speech. With normalization and comparison with other speakers, these features could be used as dependent variables.

Other kinds of displays are useful for other analyses. While Figure 5.2 showed mean values of vowels, the values of individual tokens can also be displayed. Sometimes, ellipses are drawn around the tokens of each contrastive vowel. Vowel trajectories can also be displayed to show the degree and direction of gliding. Figure 5.3 shows three-point trajectories of the individual bot and bought tokens for the speakers from Figure 5.2. For the older woman the two vowels are mostly
separate but for the younger woman they overlap broadly. The trajectories show no consistent pattern, confirming that the vowels are phonologically monophthongal for both subjects.

3 Consonantal Analysis

Consonants are more diverse than vowels. Hence, the methods needed to study them acoustically are also more varied. Perhaps this heterogeneity is the reason sociolinguists have shied away from acoustic analysis of consonants, relying on traditional auditory analysis. Nonetheless, as Docherty and Foulkes (1999) and Purnell et al. (2005a) have pointed out, acoustic analysis of consonants can reveal important variation that is difficult to detect or analyze auditorily. Acoustic analyses can also provide insights into the cognitive processing of speech. In what follows, methods used in previously published studies and their implications for cognition are discussed, but many more methods and variables could be explored (see Thomas 2011).

Obstruents, especially stops, have been analyzed sociophonetically in several ways. One important facet of obstruents is the voiced/voiceless distinction, which relies on a broad suite of phonetic cues. Among these cues are the presence or
absence of vocal murmur during the occlusion, the duration of the preceding vowel, the duration of the stop occlusion, and the contours of $F_0$ and $F_1$ at the transitions with adjacent vowels. However, the cues are not constant. They often occur in trading relations – that is, when one is weakened or absent, others are strengthened in compensation (see Parker et al. 1986). Studies of German-influenced Wisconsin English illustrate trading relations in the cues that German-Americans used to distinguish syllable-final voiced and voiceless obstruents across several generations (Purnell et al. 2005b). German is characterized by final devoicing of obstruents, and these German-Americans had to adjust to English. The first two generations showed voicing of the occlusion in final voiced obstruents, but – highly unusually – their vowels showed longer durations before voiceless obstruents than before voiced obstruents. In compensation, the German-Americans lengthened the occlusion of voiceless obstruents, thereby simulating (though not equaling) the ratio of vowel-to-obstruent duration found in mainstream English varieties. The third generation showed patterns more typical of American English. In another study, Purnell et al. (2005a) showed that Wisconsinites did not differentiate $F_0$ and $F_1$ contours next to voiceless obstruents, even though Kingston and Diehl (1994) had reported that those contours are crucial cues for the distinction. These studies demonstrate that cues used for a particular phonological distinction can differ dialectally. As such, the cues themselves must be specified in a speaker’s internalized grammar. This runs counter to most theories of phonology, which claim that only phonological features or constraints are internalized. In this way, sociolinguistic data can contribute to and challenge notions of how phonological cognition operates.

Across the Atlantic, another set of variants affecting final /t/ has provided more evidence for the value of acoustic analysis. Docherty and Foulkes (1999) and Foulkes and Docherty (2006) compared the dialects of Derby and Newcastle upon Tyne. Glottalized final /t/, common over much of England, predominated in Derby. In Newcastle upon Tyne, however, three other variants accounted for most of the tokens. One was the canonical released [t], another was a form with vocal pulsing throughout the stop occlusion, and a third showed frication just before the stop occlusion. These variants are more easily distinguished acoustically than auditorily, but they were strongly correlated with speaking style, age group, and sex.

Medial voiceless stops, especially /t/, as in daughter, show considerable variation in British dialects. Auditorily, the nonstandard variants are often described as “glottalized.” However, as Docherty and Foulkes (1999) and Foulkes and Docherty (2006) have shown, not all glottalization is the same. In Newcastle upon Tyne, glottalized /t/ may show a range of realizations, from tokens exhibiting the stop burst indicative of a full-fledged [t] through those showing a weak coronal gesture but no burst to those with no coronal gesture at all, just the glottal stop. Difficult though these variants are to distinguish auditorily, they bear social meaning because different segments of the population favor different variants. Docherty et al. (1997) discuss how the sociophonetic patterns of variation in Newcastle upon Tyne contradict predictions about glottalization by phonologists. To
Evaluation

VOT distinguishes voiced, voiceless unaspirated, and voiceless aspirated syllable-initial stops. It can be measured acoustically as the span of time between the stop burst and the onset of vocal fold vibration. This span is a negative value for voiced stops and a positive value for voiceless aspirated stops, but is close to zero for voiceless unaspirated stops. It can be a revealing variable in language contact situations, as noted by Heselwood and McChrystal (1999) for Punjabi-English speakers in Bradford, England, and by Maclagan et al. (2009) for Maori speakers. Variation in VOT has also been found in non-contact situations, including dialects of Japanese (Takada and Tomimori 2006) and Shetland Isles English (Scobbie 2006).

Other aspects of stop realization can also be examined sociophonetically. Sometimes, it may be necessary to examine articulation directly, such as through ultrasound, electropalatography, or x-rays. Purnell (2008) resorted to x-rays because acoustic analysis of /k/ and /g/ transitions in the Wisconsin dialect he was studying matched up poorly. The x-ray pictures revealed that speakers were using different dorsal articulations for /k/ and /g/. This finding raises questions for phonological theories that assume economy of gestures.

Stop epenthesis was shown to be crucially different when Fourakis and Port (1986) noted that American English and South African English differ in that the former typically inserts a stop between the nasal and the fricative in words such as dense while the latter does not. The difference results because Americans cease vocal pulsing before shifting from a stop to a fricative articulation, leaving an interval with a stop closure but no voicing, while South Africans align the two gestural shifts closely. However, the epenthetic stops averaged shorter than underlying stops (as in dents). This distinction between epenthetic and underlying stops violates assumptions of most phonological models. Fourakis and Port proposed that dialects may differ in low-level rules governing the relative timing of articulatory gestures, and they called these rules “phase rules.”

Phoneticians have used features of fricative spectra to distinguish fricatives for many years. Different sibilants uttered by one person typically show spectral peaks at diagnostic frequencies. All fricatives show distinct patterns in the distribution of energy in their spectra. Sociophoneticians have been slow to exploit these properties of fricatives. An exception is Stuart-Smith (2007), who examined the social distribution of apical and laminal [s] in Glasgow using fricative spectra.

Liquids are readily analyzed using acoustic methods. Means of distinguishing uvular /r/ types, as for French (Demolin 2001), and “r-fullness” or “rhoticity” in English (Ocumpaugh 2001) have been developed for sociolinguistic applications. Acoustic analysis has been used more for laterals, mostly for “clear” (non-velar) vs. “dark” (velarized) alveolar laterals. Clear /l/ has a higher F2 than dark /l/, as shown in Figure 5.4, though the difference is scalar. Use of F2 values to gauge dialectal differences in velarization has been used for Catalan (Recasens and Espinosa 2005) and English (Carter and Local 2007; Van Hofwegen 2009).
With rare exceptions (e.g. Purnell 2008), acoustic methods have heavily predominated. Measurements of consonant articulation have, in the past, been confined to laboratories. However, ultrasound equipment is more mobile than x-ray equipment and other technologies. It is most suitable for examining tongue position, and thus can be used for both consonants and vowels, as shown by Bauer and Parker (2008), and improvements in technology show promise.

4 Prosodic Analysis

Sociophonetic analysis of prosody has studied intonation, prosodic rhythm, lexical tone, and speech rate, in decreasing order of research conducted. Intonation and lexical tone share some analysis methods because both involve tones. Prosodic rhythm and speech rate each employ quite different techniques.

Intonation is currently transcribed using the Tone and Break Index (ToBI) system (Beckman and Elam 1997), a combination of auditory judgment and acoustically measured $F_0$ patterns. It recognizes two general kinds of tones: edge tones, which occur at the end (and occasionally the beginning) of phrases, and pitch accents, which occur within phrases. It also assumes that there are basically two phonological tone designations, high (H) and low (L). Combinations, such as a
L+H* pitch accent or a H-L% edge tone, are possible. Such combinations usually represent contour tones – that is, tones with an inherent rise or fall. There are also different kinds of phrases. All languages have the highest-level phrases, Intonational Phrases (IP), but some have intermediate (ip) or Accentual (AP) phrases.

In terms of intonation, languages and dialects may differ in three general ways. They may have different inventories of pitch accents and/or phrasal types. They may use a given tone to different degrees, usually indicating differences in the meaning of the tone. They may also show phonetic differences in the realization of a particular tone. The last kind of difference is conducive to sociophonetic analysis. One sort of analysis examines how the peak or trough of a tone is aligned relative to its host syllable. Host syllables are normally stressed, but the peak/trough may appear within that syllable or on a following unstressed syllable. Temporal locations of the lowest and highest $F_0$ points and the onsets and offsets of segments in the vicinity are determined, as in Figure 5.5. Discoveries of dialectal variation in peak alignment include Atterer and Ladd (2004) for German and Arvaniti and Garding (2007) for American English. Another kind of analysis examines the relative amounts of truncation and compression in tonal contours when the tones are shortened. Truncation results in less rise or fall in $F_0$ values, while compression yields steeper slopes in the $F_0$ contour. Grabe et al. (2000) found differences among British English varieties in whether they favored truncation or compression.

![Narrowband spectrogram with superimposed pitch track, showing measurement points for peak alignment.](image)

**Figure 5.5** Narrowband spectrogram with superimposed pitch track, showing measurement points for peak alignment.
Lexical tones are tones that are associated with particular words, as in Mandarin or Vietnamese. Like intonational pitch accents, they can consist of simple H and L tones or of more complex contour tones, often incorporating various intermediate pitches. The same segmental alignment and truncation/compression methods used for intonational tones can be used for lexical tones. In variationist studies of lexical tones, such as Bauer et al.’s (2003) study of Hong Kong Cantonese and Stanford’s (2008) paper on Sui (a language from southern China), other methods may be necessary. Bauer et al. normalized individual tokens against the mean and standard deviation of all tokens of the same tone. Stanford used the mid-level tone of Sui as a reference point. He also examined variation in the contour of one tone by using the onset of that tone as a reference point.

Prosodic rhythm is based on the notion that languages can be classified into those that are syllable-timed, with each syllable having about the same duration, and those that are stress-timed, with each foot approximately the same duration. In fact, syllables and feet are not isochronous in either type of language. However, the realization that “syllable-timing” and “stress-timing” lie on a continuum instead of being discrete entities permitted the development of formulas for gauging rhythm.

Two kinds of rhythm formulas have been developed. One type, interval measures, exemplified by Ramus et al. (1999), assumes that rhythmic differences stem from phonotactics of languages. Durations of each vocalic interval and each consonantal interval are measured. The standard deviations of the vocalic and the consonantal intervals (ΔV and ΔC) and the percentage of duration taken up by vowels (%V) are computed. Higher ΔC and lower %V values are associated with stress-timing. The other type of rhythm formula is based on pairwise variability measures, exemplified by Low et al. (2000). In the most commonly used version, called nPVI, the difference in durations of vowels in adjacent syllables is divided by the mean of those two syllables. These methods, especially nPVI, have been used in dialectal studies, often when rhythm features can be attributed to a substrate language (e.g. Low et al. 2000; Thomas and Carter 2006; White and Mattys 2007).

Speech rate and the related analysis of pauses have been explored by Kendall (2009). Pauses may be filled with hesitation markers such as *uh*, or unfilled, that is, silent. Kendall found considerable individual differences in pause lengths. Rate-of-speech metrics most often count the number of syllables per second. The rate, including pauses within a conversational turn, is called the speaking rate, and with pauses excluded it is called the articulation rate. Dialectal differences have turned up in both speaking rate and articulation rate (e.g. Robb et al. 2004; Quené 2008).

5 Voice Quality

Relatively few sociophonetic studies of voice quality have been conducted (e.g. Di Paolo and Faber 1990; Stuart-Smith 1999), presumably because of assumptions
that voice quality is entirely physiological or that it is too difficult to study. Neither
is true. Lack of familiarity is the main obstacle.

Voice quality features can be divided into laryngeal and supralaryngeal factors. Laryngeal factors have to do with settings of the vocal folds, such as breathiness and creakiness, and are often called phonation. Supralaryngeal factors have to do with settings above the larynx, including nasality and habitual tongue or lip configurations.

Phonation can be measured in several ways. Greatly slowed vocal pulses characterize creaky and similar kinds of phonation, such as hoarseness and roughness. Hoarseness and roughness typically show more irregularity in the frequency and amplitude of pulses than true creakiness. The most common measurement method involves comparing the amplitudes of low harmonics. In breathy voicing, the lowest harmonic (equivalent to $F_0$) has significantly higher amplitude than any other harmonics. For creakiness, the second or third harmonic has greater amplitude than the first and a harmonic associated with the first formant has the greatest of all. Modal voicing can vary, but usually the highest-amplitude harmonic lies within the first formant. A newer method is cepstral peak prominence, or CPP (Hillenbrand et al. 1994). It takes advantage of the high-frequency noise associated with breathiness. Modal phonation shows much greater CPP values than breathy phonation. Other metrics, such as jitter, shimmer, and harmonics-to-noise ratio, are loosely connected with phonation distinctions.

Among supralaryngeal settings, nasality probably has the best-developed acoustic methods of analysis. The most common methods involve comparing the amplitude of the first oral formant with the amplitude of either of the first two nasal formants. These methods are possible because vestiges of nasal formants are often discernable even in supposedly non-nasal vowels. Other methods include measuring the bandwidth of the oral $F_1$ or calculating the standard deviation of the highest peak below 1 kHz, both of which nasality increases.

6 Perception

Acoustic measurements are, for the most part, geared toward examining speech production. However, speech perception is just as important as production and should be given its due. Perception is somewhat harder to study because it requires behavioral experiments. While not as numerous as production studies, perception studies have a long history in sociophonetics. They also are more easily linked to cognition of language.

Perception experiments are often classified as identification tasks or discrimination tasks. Identification tasks, for which the subject labels each stimulus in some way, can be further divided into open-ended and forced-choice tasks. In an open-ended task, subjects are free to put whatever label they like on a stimulus. The labeling can involve identifying a word, phrase, or sound, or it can require subjects to sort stimuli into groups. Word identification can be useful to determine whether a subject has a phonological merger (e.g. Labov et al. 1991) or how intelligible
dialect pronunciations are (e.g. Bezooijen and Berg 1999). Sorting has been used to determine relative similarity of dialects (Clopper 2008). A technique first used in psychology is the prime/target design (e.g. Sumner and Samuel 2009), in which subjects hear two words and have to identify the second one. The first word may or may not be related to the second. Timing of responses shows that if the first word is semantically related there is a priming effect that will speed identification of the second.

Forced-choice tasks have disparate uses. For some, the choices are words or sounds. Such tasks can be useful for determining what phonetic cues are used for a phonological distinction, as in Thomas (2000), or for how lects differ in dividing sounds into phonological categories, as in Janson (1983). They may also be used in experiments on whether misleading information about speakers can prime perceptual shifts (e.g. Hay et al. 2006). For other forced-choice experiments, the choices are personality traits. In subjective reaction experiments, listeners rate voices for traits such as intelligence or friendliness. In one variation, the matched-guise test, the same person produces different stimuli using differing guises (Lambert et al. 1960; also see Preston in this volume). Subjects may also be asked to identify the regional dialect or ethnicity of speakers (e.g. Bezooijen and Gooskens 1999).

Discrimination tasks are not used often in sociophonetics. One discrimination task, useful for testing mergers and splits, presents two stimuli to subjects and asks them whether the stimuli has the same vowel, intonational meaning, and so on. Another task is oddball detection, in which subjects are played three or more stimuli and asked which is unlike the others. Yet another is the ABX design, in which subjects are asked whether the test stimulus (X) is more like one comparison stimulus (A) or the other (B).

These methods are used to test five general kinds of perceptual issues. The first is the ability of listeners to identify geographical (Bezooijen and Gooskens 1999; Clopper and Pisoni 2007) or ethnic (Thomas and Reaser 2004) dialects, and determining how they do so. The second is examining how listeners’ perceptions can be affected by non-linguistic information about speakers (e.g. Niedzielski 1999; Hay and Drager 2010). Third is how phonological mergers and splits are reflected in perception (e.g. Labov et al. 1991). Fourth is how dialectal differences affect the phonological categorization of phones (Janson 1983), as the boundaries may differ by dialect. The last issue, tested with subjective reaction experiments, is determining stereotypical attitudes about voices (see Giles and Powesland 1975). For a deeper review of the five issues, see Thomas (2002).

7 The Bigger Picture

Sociophonetics shows potential for propelling sociolinguistics into the thick of mainstream linguistic theory. Socio-perceptual experiments could be applied, for instance, to test Exemplar Theory, which holds that people have huge stores of remembered utterances and an ability to generalize these stores into phonological
categories (Johnson 1997). In contrast, traditional phonological theories assumed that phonological abstractions such as features were inborn. Exemplar Theory maintains that along with the utterances are stored memories of where and when an utterance was spoken. This notion converges with sociolinguistic findings that linguistic variants show rich social indexicality and that people use those forms to project their identities. Kristiansen (2008) refers to the cognitive aspects of indexicality as “receptive competence.” Hybrid models with aspects of both Exemplar Theory and traditional phonology (such as Pierrehumbert 2006) have gained traction, but refinement is needed. Sociophonetic experiments on, for instance, style-shifting and dialect intelligibility could help resolve the extent to which Exemplar Theory accounts for phonological cognition.

More generally, sociophonetics offers a means for variationists to weigh in on the two focal issues of linguistics: (i) how/why language varies and changes, and (ii) how language is structured systematically and psychologically. We have already seen how Labov (1994) has developed a series of principles to describe vowel shifting. A broader issue on the motivation of sound change is whether sound changes originate through misperceptions, as Ohala (1993) has argued for certain sound changes, or through deliberate selection of naturally occurring variations, as favored by Lindblom et al. (1995). Deliberate selection may appear to align well with findings about the social meanings that variants bear. However, it is also possible that people may misperceive socially marked variants that they wish to emulate and thereby create new variants. Sociophonetic studies will be necessary to resolve this issue.

In Section 3 above, I discussed several instances in which sociophonetic studies provide insights into the structure of sound systems. Recent experimentation has augmented the value of sociophonetic studies for understanding the cognitive structure of language. Conrey et al. (2005), using event-related potential (ERP) brain imaging, showed that listeners with and without a particular merger in their production processed words with the affected segments differently. Similarly, Sumner and Samuel (2009), using a prime/target design, found that listeners’ dialects and their exposure to dialects impacted the effectiveness of r-less realizations (e.g. baker pronounced [ˈbeikə]) as primes. Moreover, it has been found that listeners can shift their perceptual mode according to the dialect they hear (Rakerd and Plichta 2010). Several experiments, such as Evans and Iverson (2004), have demonstrated that exposure to different dialects improves the speed with which listeners can understand those dialects. Investigations like these show that sociophoneticians are pursuing methods that address linguistic structure and, specifically, the mental structure of language.

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Comparison has always been at the root of sociolinguistics. Comparative sociolinguistics in particular is concerned with the relationship of linguistic variation in one body of materials to another. This requires a two-fold approach. First, a methodology that enables the many different influences on linguistic variation to be disentangled through systematic examination of its patterns. Second, an approach that situates and explains linguistic variation through comparison with like features in related varieties. This methodology builds directly from two strands of linguistics—historical linguistics and quantitative sociolinguistics.

The comparative method in historical linguistics is based on shared correspondences of linguistics features or comparative reconstruction (Hoenigswald 1960; Meillet 1967). The application of these methods to sociolinguistics began with Weinreich et al.’s (1968) introduction of the notion of “structured heterogeneity” in the speech community, which was later developed by Labov (1982). This work laid the foundations of variationist sociolinguistics (Labov 1963, 1966, 1969; Labov et al. 1968), which elaborated a method of analysis founded on assumptions of accountability, systematic hypothesis testing in data, and building generalizations on comparative studies. Further, constraints on linguistic features were brought into the picture and held to be a reflection of diachronic patterns even after centuries of geographic separation (Labov 1980: xvii).

A comparative approach had been, at least implicitly, adopted for tracking historical connections between related varieties since the turn of the century (e.g. Kurath 1928, 1964). Subsequently, it has been implicitly or explicitly adopted by numerous scholars in a wide range of applications: for making transatlantic connections (Montgomery 1989, 1997, 2001); for contrasting data sets in real and apparent time (Bailey and Maynor 1985; Bailey, Maynor, and Cukor-Avila 1989);
for tracing the roots of extraterritorial varieties (Clarke 1997a, 1997b; papers in Hickey 2004; Jones and Tagliamonte 2004); and for isolating systems in language contact (Meyerhoff 2009; Poplack and Meechan 1995, 1998). More recently, a comparative element has become prevalent in dialect studies (e.g. Tagliamonte 2006b; Tagliamonte, Smith, and Lawrence 2004, 2005; Wolfram 2000; Wolfram and Thomas 2002).

Comparative sociolinguistic research developed initially from issues surrounding the origins of African American Vernacular English (AAVE) (e.g. Holm 1975; Rickford 1977, among many others). This longstanding debate provides a conundrum for the comparative sociolinguistic endeavor as researchers from all areas of the field attempt to reconstruct the likely characteristics of the ancestor of AAVE.

In this chapter my goal is to demonstrate comparative sociolinguistic methodology using case studies from two research programs. The first involves tracking the origins of AAVE (e.g. Poplack 2000; Poplack and Tagliamonte 1991a, 1991b, 1992, 1993, 1994, 1999, 2001) and the second involves the origins of North American dialects (e.g. Godfrey and Tagliamonte 1999; Jones and Tagliamonte 2004; Poplack and Tagliamonte 2004; Tagliamonte and Smith 2000; Tagliamonte et al. 2004).

1 Variationist Sociolinguistics

Variationist sociolinguistics is part of the “descriptive–interpretative” strand of modern linguistic research (Sankoff 1988: 142–143). Studies employing this methodology are based on the premise that the features of a speech community, whether morphosyntactic, phonological, lexical, or discursive, may vary in a systematic way, and that this behavior can be quantitatively modeled (Young and Bayley 1996: 254). The approach rests on the assumption that whenever a choice exists between two (or more) alternatives in the course of linguistic performance, and where that choice may have been influenced by any number of factors, then it is appropriate to invoke statistical techniques (Sankoff 1988: 2).

When the goal of research is to gauge the individual and combinatory effects of multidimensional internal linguistic factors alongside broadly defined, and often highly interactive, external factors, a quantitative approach is particularly useful. The advantage of this type of analysis lies in its ability to model subtle grammatical tendencies and regularities in the data, uncover the relevant interactions, and assess the relative strength and significance of predictors, when all of them are tested simultaneously. The combination of predictors exerting an influence on a given linguistic phenomenon will often be extremely complex. The task for the analyst is to identify those factors that are the most meaningful and to interpret them.

One of the foundations of variationist analysis is its attempt to discover not individual occurrences, not even overall rates of occurrence, but patterns of variability in the body (or bodies) of material under investigation, using the steps in (1):
Evaluation

(1) a. Select an appropriate linguistic feature, ideally a diagnostic area of grammar.
b. Circumscribe the variable context.
c. Code the data so as to test hypotheses, claims, and observations in the literature.
d. Examine the patterns of use of the linguistic feature according to the principle of accountability using the lines of evidence provided by statistical modeling:
i. Which predictors are statistically significant?
ii. What is the relative contribution of the predictors?
iii. What is the order (from more to less) of factors within a predictor? (constraint hierarchy)
iv. Does this order reflect the direction predicted by one or the other of the hypotheses being tested?

Since linguistic change proceeds as “an ordered set of shifts in the frequency of application of the rule in each environment” (Labov 1982: 75) we can expect that not only rates but especially the conditioning of linguistic variability will be language specific. Thus, the environmental constraints (i.e. the “predictors” in item ii) on variation are the fundamental units of linguistic change (Labov 1982: 75) while the constraint ranking of factors (the “constraints” in item iii) provides a critical diagnostic for comparison. Similarities and differences in the significance, strength, and ordering of constraints provide a microscopic view of the underlying grammatical system. Through the evidence provided by various statistical tools and techniques we can “trace the path of linguistic development through a multidimensional space.” These measures enable us to infer whether the data sets under comparison share an underlying grammar, and to what extent. For example, if the constraint ranking of one (or more) predictors is shared by a set of varieties, we infer that they have inherited it from a common source. If the constraint ranking of predictors is parallel, but operates at varying strengths in different varieties, this may be explained by the stage of development of the system of grammar under investigation as represented by each data set.

Determining the historical origins of a linguistic feature requires not only the existence of an apparently similar or identical feature in a putative source dialect but also the same distribution in the language, as determined by the hierarchy of constraints conditioning its appearance (Poplack and Tagliamonte 1991a: 318). In order to assess the status of a form, it is not its current existence in a variety that is decisive, nor even its rates of occurrence. This is because overall rates of presence or absence of the variants under investigation will likely vary according to features of the situation. However, the distribution, that is, precisely where it occurs in the language, as determined by the relative frequency of the feature across its different contexts of use, is taken to represent the underlying grammatical structure.

Comparative sociolinguistic analysis involves consistent utilization of each of the lines of evidence above but with the added triangularization of two or more
relevant bodies of material to compare and/or contrast. This is where the comparative element comes in.

2 The Comparative Method

In historical linguistics it is widely held that earlier stages in the history of a language can be observed through comparative analysis of cognate forms (sets of reflexes) in later, sister varieties (Hoenigswald 1960: 119; Meillet 1967). In comparative sociolinguistics, the means by which the sister varieties are compared is the set of correspondences provided by the results of the statistical analysis, what Labov (1982: 75) referred to as “finely articulated structures.” In fact, the quantitative paradigm provides the kind of “precise information on the states of the language” called for by Meillet (1967: 138).

We approach this by comparing the patterning of variability in each possible source. If the conditioning effects on the variable linguistic features show patterns approximating those found in a putative source, we can conclude that they represent structures drawn from that source. On the other hand, where there are dissimilarities, we have grounds for concluding that the phenomena in question belong to different linguistic systems (see Poplack and Tagliamonte 2001: Chapter 5).

A key notion in a comparative sociolinguistic approach is the notion “conflict site.” This is defined as a form or class of forms that differs functionally and/or structurally and/or quantitatively across the varieties in question (Poplack and Meechan 1998: 132). By quantitatively analyzing patterns of distribution at grammatical sites where varieties are held to be distinct, the precise nature of similarities and differences across data sets can be pinpointed. If the results match the observations made in the literature for the putative source varieties, then we appeal to this similarity to posit a link between the two. On the other hand, where there are dissimilarities, we must contextualize and evaluate the differences in the context of linguistic developments and sociocultural characteristics of the varieties under investigation. If the variability in the data is part of ongoing linguistic change, then it must be analyzed in terms of where it came from, consistent with Jespersen (1924) that “to understand a linguistic system, we must know how it came to be.”

Using the lines of evidence made available by statistical techniques, we then proceed according to the procedure in (2):

(2) Compare and contrast conditioning factors across sets of data which can be related (at least putatively) across some external set of criteria according to:
   i. statistical significance
   ii. relative strength
   iii. constraint hierarchy.
3 Target of Investigation – Sisters Under the Skin?

In the analyses that follow I will examine a number of different linguistic variables (diagnostics) in up to six different communities. The data comprise hundreds of hours of audio-recorded conversations, which due to their informality and content (e.g. stories, gossip) are taken to represent the vernacular norms of each locality. The communities can be contrasted on a number of broad extralinguistic characteristics which are germane to the comparative perspective, as summarized in Table 6.1.¹

The speakers in each of the corpora were born and raised in the community in question. With the exception of OTT and YRK, they represent the oldest living generation at the time of the fieldwork.

The communities are differentiated by the ethnic ancestry of the inhabitants. In three data sets the speakers are of African descent (SAM, ESR, NPR, GYE); in the other four, the speakers are of British ancestry (GYV, BCK, DVN, OTT, YRK). All the African origin speakers in these data sets live in relatively isolated circumstances. The speakers of British ancestry represent a range of different backgrounds from highly isolated (BCK) to urban (OTT). Thus, we are provided with an unprecedented opportunity to conduct a cross-variety comparison in which linguistic features may be viewed across these two dimensions relatively independently.

Table 6.1 Extralinguistic characteristics of varieties under investigation.

<table>
<thead>
<tr>
<th>Locale</th>
<th>Abbreviation</th>
<th>Geographic location</th>
<th>Separation from mainstream</th>
<th>Ethnic affiliation</th>
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</thead>
<tbody>
<tr>
<td>Buckie</td>
<td>BCK</td>
<td>Northeast Scotland</td>
<td>yes</td>
<td>British</td>
</tr>
<tr>
<td>Guysborough Enclave</td>
<td>GYE</td>
<td>Nova Scotia, Canada</td>
<td>yes</td>
<td>African</td>
</tr>
<tr>
<td>North Preston</td>
<td>NPR</td>
<td>Nova Scotia, Canada</td>
<td>yes</td>
<td>African</td>
</tr>
<tr>
<td>Ex-Slave recordings</td>
<td>ESR</td>
<td>Southern United States</td>
<td>yes</td>
<td>African</td>
</tr>
<tr>
<td>Samaná</td>
<td>SAM</td>
<td>Dominican Republic</td>
<td>yes</td>
<td>African</td>
</tr>
<tr>
<td>Devon</td>
<td>DVN</td>
<td>Southwest England</td>
<td>yes</td>
<td>British</td>
</tr>
<tr>
<td>Guysborough Village</td>
<td>GYV</td>
<td>Nova Scotia, Canada</td>
<td>intermediate</td>
<td>British</td>
</tr>
<tr>
<td>Ottawa</td>
<td>OTT</td>
<td>Ontario, Canada</td>
<td>no</td>
<td>British</td>
</tr>
<tr>
<td>York</td>
<td>YRK</td>
<td>York, England</td>
<td>no</td>
<td>British</td>
</tr>
</tbody>
</table>
Moreover, these contrasting extralinguistic characteristics, along with standard accounts of the effects of language contact (e.g. Thomason and Kaufman 1988), would lead us to expect that the more separate from mainstream culture, the higher the degree of impermeability to influence from surrounding mainstream vernaculars (see Poplack and Tagliamonte 2001). In the case of the Nova Scotia communities, these considerations, in conjunction with a standard diffusionist hypothesis, would lead us to expect that NPR should retain more local vernacular features while GYE may show similarities with neighboring GYV. The British varieties are situated at two geographic extremes in Britain, one in the northeast (BCK) and the other in the southwest (DVN). Thus, we would expect both locales to retain local vernacular features, but given the well-known north/south divide in Britain, different ones.

Each community differs with respect to the relative degree of exposure of residents to mainstream culture and language. OTT and YRK are clearly situated in the mainstream, while GYV, a rural village in Nova Scotia, stands in an intermediary position (see discussion, Poplack and Tagliamonte 1999). The remaining areas are rural, and in addition to geographic separation, they have all had relatively limited contact with mainstream culture and outsiders. In each, the speakers live in a remote fringe area, where they are also separated from large urban populations on additional sociocultural grounds. In these cases, each data set represents a variety that has evolved in a context of relative isolation.

These data bear many, if not all, of the characteristics of “peripheral” areas, which in historical linguistics are widely known to provide choice evidence about earlier stages of a language (Anttila 1989; Hock 1986: 442). Preservation of features from earlier stages in the history of English in these and other comparable communities are reported extensively in the sociolinguistic literature culminating in the following syntheses: Hazen 2000; Poplack 2000; Poplack and Tagliamonte 2001; Schilling-Estes and Wolfram 1999; Tagliamonte 2006b; Wolfram and Schilling-Estes 2004; Wolfram and Thomas 2002. Taken together, these communities can provide an interesting test site for models of language change, a critical window on the past, and an ideal scenario for comparative sociolinguistic study.

In the remainder of this chapter, I present a series of analyses that consistently compare different combinations of these data sets, depending on the linguistic feature under investigation.

4 The Importance of Proportional Analysis

Variation between marked and unmarked past temporal reference weak verbs, as in (3) and (4) (Poplack and Tagliamonte 2001: 123), is known to differentiate English and creole varieties (Hacket 2008; Patrick 1999; Van Herk and Poplack 2003; Winford 1992).

(3) I looked at it; it look just like Corney. (NPR/039)
(4) I stook wheat . . . I stooked it. (GYV/107)
Let us examine this feature in four of the data sets whose origins can be traced to a common geographic area (the United States), but which have been separated for 150 years in Canada (NPR and GYE) the Dominican Republic (SAM) and the Southern United States (ESR).

Table 6.2 provides a count of the number of unmarked (bare) weak verbs, for example, look, with past temporal reference in each body of materials.

SAM has considerably more bare verbs than the other corpora ($N = 518$). This is, in fact, precisely what would be expected of creoles since these varieties are widely known to have considerably less verbal affixation than other languages (e.g. Bickerton 1975). SAM is located in the Caribbean where many creoles are spoken and, further Samaná English is spoken by people of African descent. Since many creoles are spoken by people of this ethnic affiliation, then one might be led to hypothesize that the reason SAM has many more bare verbs is that it has a more creole-like grammar than the other varieties.

However, simple counts do not take into account the proportion of these bare verbs out of all the relevant verbs in each data set. Table 6.3 displays a distributional analysis according to the “principle of accountability” (Labov 1972: 72). The number of bare verbs is reported as a proportion of the total number of past temporal reference verbs (either inflected or not).

It is now clear that the apparent differences between varieties in Table 6.2 comes from the fact that there are simply more past temporal reference contexts in the SAM data. The percentages reveal that the overall rate of bare verbs across varieties is quite similar, the exact opposite result of what Table 6.2 indicated.

This illustrates a fundamental component of the comparative sociolinguistic approach. It is critical to deal with proportions in order to compare rates consistently and accountably across data sets.

| Table 6.2 Simple count: number of bare verbs with past temporal reference. |
|-----------------------------|----------------|-------------|-------------|
| NPR | GYE | SAM | ESR |
| Number of bare verbs | 127 | 159 | 518 | 100 |

| Table 6.3 Number, total, and proportion in past temporal reference contexts. |
|-----------------------------|----------------|-------------|
| NPR | GYE | SAM | ESR |
| Number of bare verbs | 127 | 159 | 518 | 100 |
| Total number of past reference verbs | 362 | 534 | 1234 | 283 |
| Proportion of bare verbs (%) | 35 | 30 | 42 | 35 |
Yet proportional analysis provides only a first step in demonstrating that the varieties in Table 6.3 are patterning in the same way. In fact, this view of the data reveals very little about the system underlying the proportions. Thus, it provides insufficient evidence to distinguish between contrasting grammatical systems.

Table 6.4, Table 6.6, and Table 6.8 present the results of variation analyses using the standard sociolinguistic tool, Goldvarb (Sankoff, Tagliamonte, and Smith 2012). The results in these tables can be interpreted as follows: The PROPORTION is the frequency of the dependent variable out of the total number of relevant contexts. The CORRECTED MEAN indicates the overall tendency of the dependent variable (e.g., bare verbs in Table 6.4; going to in Table 6.6) to surface in the data. The TOTAL N records the total number of contexts treated in the analysis. Each of the predictors that have been considered in the analysis is listed with the results for each factor. Point-form numbers are FACTOR WEIGHTS. These indicate the probability of the dependent variable to occur in that context. The closer these numbers are to 1, the more highly favoring the effect is; the closer they are to 0 the more disfavoring the effect is. The RANGE is a non-statistical measure of the relative strength of the factor. The higher this number is, the greater the contribution of that factor to the probability of the form. The CONSTRAINT RANKING is the hierarchical order of the values in a predictor, for example, in Table 6.4 the constraint ranking for preceding phonological segments is: .81 > .60 > .26. Each PREDICTOR
is a hypothesis about what influences the variation. For example, the test for following phonological segment in Table 6.4 is a hypothesis that consonant clusters will be simplified.

5 Constrasting Constraints Across Varieties

As it happens, variation in verbal morphology on weak verbs is a good conflict site to compare varieties because the environmental constraints can be expected to differentiate grammatical systems. In creoles, past-reference verbs are often bare as the result of an underlying tense/aspect system that is relative rather than absolute and a stative/non-stative distinction. Relative tense means that the relationship of states and events in the discourse is the relevant factor conditioning overt morphology on the verb. When past time is overtly marked, it signals anterior on non-stative verbs (i.e. a temporal point before the reference verb) but posterior on stative verbs (i.e. a temporal point after the reference verb). Even a creole at an advanced stage of decreolization (approximating Standard English norms) may still reflect this underlying grammatical organization. In Standard English, however, it is claimed that all events prior to speech time are marked with past tense. The device most frequently employed for this is the preterit, where weak verbs take a suffix, that is, the [t] in looked. In English the final consonant clusters of weak past tense verbs are operated upon by regular phonological conditioning such that -t/d may be deleted by surface level (consonant cluster) reduction processes (e.g. Guy 1980).

Which system is in operation in the varieties depicted in Table 6.3 and Table 6.4? Is it consonant cluster simplification or anterior marking coupled with a stative/non-stative distinction? Such a decision cannot be based on proportion alone. In order to determine the nature of variability across varieties it is necessary to understand the underlying grammar.

Let us now employ variation analysis and utilize the lines of evidence offered by statistical significance, relative strength of predictors, and constraint ranking of factors to consider the variation between marked and bare verbs in Table 6.4 (adapted from Poplack and Tagliamonte 2001: 124, Table 6.2). A key community is added to the comparison – Guysborough, Nova Scotia (GYV), a small town close to GYE, inhabited by descendants of British loyalists. This variety can be expected to embody conservative English patterns, a critical control for the other four varieties that comprise isolated conditions and speakers of African descent.

The same phonological factors are chosen as significant and condition the variability in the same way in each community. In each analysis the ranking of more to less of the factors is parallel. Preceding consonant clusters are the most highly favorable environment for bare verbs, then single consonants, while vowels disfavor. Following consonants favor bare verbs but vowels disfavor. The major predictor relevant to creole verb marking (stativity/anteriority) was not selected as significant. These results are particularly important because they reveal under-
lying similarity despite widely varying proportions visible in the corrected mean values that range from .14 in GYV, to .59 in GYE.

These results provide substantial evidence to conclude that the bare past reference weak verbs in all these communities are the result of surface level phonological reduction processes.

Is this enough evidence to give a decisive answer to the questions of what grammar underlies these varieties and what their source may have been?

The problem is that consonant cluster simplification may be the result of universal phonotactic principles of grammar. If so, they tell us little about the origin of these varieties. This highlights the fact that all linguistic features do not provide the same caliber of evidence for cross-variety comparison. Many so-called conflict sites are actually not conflict sites at all, since the same surface forms may appear across varieties that have no filial relationship. In other words, the constraints operating on the variation may be irrelevant to the issues of origins and system identification.

Let us now consider a linguistic feature whose variable forms appear globally but for which examination of the historical record reveals distinctive patterning traceable to particular dialect regions in Britain. This obviates the possibility that the patterns in the data arose independently.

6 Using Constraint Hierarchies to Disentangle Source Dialects

Certain features which appear in dialects of English all over the world, such as use of was and were in (5), are particularly useful for the comparative sociolinguistic endeavor because they offer the analyst an opportunity to evaluate universal vs. local constraints on variation.

(5) There was him and his mother and I think there was about – was it three or four boys and two girls. . . . So, there were near about fourteen or fifteen in one house. (Smith and Tagliamonte 1998)

The question is what explains global dispersion of the type of variation in (5)? One hypothesis is the standard diffusionist explanation in which was/were variability was carried to different places in the world by people speaking varieties in which this variation was present (Weinreich et al. 1968). Another hypothesis suggests that it is the result of a more general tendency in all nonstandard varieties of English to gravitate toward more primitive (i.e. not learned) linguistic patterns (Chambers 2009: 263). Still other hypotheses argue this variation is the result of innovative restructuring, for example, was for affirmative; were for negative (Schilling-Estes and Wolfram 1994). How can these explanations be appraised? Examination of the historical background is imperative in order to contextualize the synchronic situation (Labov 1982: 75).
7  Contextualizing Variation in Diachrony

Nonstandard use of *was* is plentiful in literary works depicting the language of earlier stages in the history of English, as in (6).

(6)  a. They *was* a-eating of it, I expect, says Phil.
    b. I thought you *was* dead, I am sure!
    (Both from Dickens, *Bleak House* c. 1850s)

Importantly, three contextual linguistic patterns can be extrapolated from the literature (e.g. Curme 1977; Forsström 1948; Jespersen 1909 [1949]; Visser 1963–1973), enabling the analyst to make hypotheses about the data.

• *Was* was used almost exclusively in second person singular in northern British dialects, while southern dialects used *were* (Brunner 1963; Forsström 1948; Mossé 1952).

• *Was* occurred more often with plural noun phrases (NPs) than pronouns. While originally a northern feature (Murray 1873), by the Early Modern English period it had spread throughout Britain (Visser 1963–1973).

• *Was* is sensitive to negation (Britain 2002; Schilling-Estes and Wolfram 1994).

Operationalizing these patterns as predictors in a comparative sociolinguistic analysis can disentangle the different hypotheses and perhaps more importantly constrain explanations. First, we can compare the feature under investigation (i.e. *was/were* variation) across geographic locations, North America and Britain. Second, we can compare different varieties in North America as to their relative degree of participation in mainstream norms. Third, we can compare according to African vs. British ancestry. Fourth, we can compare across dialect regions in Britain, north vs. south. The results from these comparisons will enable us to interpret and explain the variation.

8  Operationalizing Constraints on *was/were* Variation

Figure 6.1 displays the overall distribution of nonstandard *was* by grammatical person in the five varieties targeted for investigation.

This view of the data reveals that nonstandard *was* is robust across all the varieties, which supports the hypothesis that it may be the result of vernacular primitives. Note however, that the frequency varies but not according to a continental divide, that is, North American vs. British, or even a national contrast, that is, northern vs. southern Britain. Instead, the rates are relatively high everywhere except in GYV, the variety which has evolved in tandem with mainstream developments more than the other locales. This result suggests that the use of nonstandard *was*
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may be the result of differential contact with prescriptive norms, adding corroborating evidence for a vernacular/prescriptive continuum.

As with the analysis of bare verbs, however, the overall proportion tells us little about the underlying constraints that might differentiate the communities.

9 Grammatical Person

Figure 6.2 shows the distribution of nonstandard was, but the data is now partitioned by grammatical person for each community. Where are the similarities and differences?

Plural existential constructions, NP (exist), favor the use of was in all communities. This correlation has been traced back to the Old English period (Visser
1963–1973) and is widely reported in virtually all contemporary varieties of English.

Use of was outside of existential constructions is much more variable. Three varieties – BCK, NPR, and GYE – have a similar hierarchy – second person singular tends to have the highest rates, then third person plural NPs, then first person plural, and finally third person pronouns. This regularity sets these three communities off from GYV and DVN where third person noun phrases NP (plural) have the highest rates of was (outside of existentials) and second person has low rates. This differentiation runs according to northern vs. southern Britain, which in turn corresponds to what we know about the general historical dialect roots of the ancestor populations of these communities, suggesting dialect inheritance as an explanation for the variable patterns.

Nevertheless, a single diagnostic (grammatical person) provides only one piece of evidence. Consider another.

10 Type of Subject

Figure 6.3 shows the distribution of was, but now restricts the analysis to third person plural where the distinction between full noun phrases and pronouns becomes visible.

The historically attested pattern is visible across all the communities. In every case, plural NP subjects exhibit a high, or relatively higher, frequency of use of was than does the third person pronoun they.

Both BCK and GYV have categorical were with pronouns. However, in GYV (see Figure 6.2) plural NPs are the only location where was occurs with any frequency outside of existentials, whereas in BCK was is robust in every other context – a pattern that it shares with NPR and GYE. Thus, the relevant finding here is the relative high rates of was with NPs as opposed to PRONOUNS (PRO), precisely the same direction of effect attested in the historical record. The comparative per-

![Figure 6.3](image-url)  
**Figure 6.3** Distribution of nonstandard was by FULL NPs vs. PRONOUNS in third person plural.
The Effect of Negation

Figure 6.4 shows the distribution of *was*, but now displays the distinction between negative and affirmative contexts.

Once again, we observe a parallel pattern for BCK, NPR, and GYE: *was* is more frequent in negative, as opposed to affirmative, contexts. In contrast, in GYV and DVN there is little to differentiate either affirmative or negative.

Interpreting Similarities and Differences

The comparison of constraints on the use of *was* in all the varieties reveals that *was/were* variation is the result of systematic internal linguistic conditioning. But it cannot be explained as the result of across-the-board regularization processes. The only pan-community effect is the strong propensity for *was* in existential contexts. Table 6.5 provides a checklist of shared vs. unique constraints.
Given the historical record, northern varieties of British English would have embodied both the favoring effect of second person singular and the favoring effect of plural NPs. The use of nonstandard *was* in BCK, NPR, and GYE are synchronic reflections of these patterns. The fact they also share the negation effect suggests that this too may have been one of the set of conditioning factors on *was/were* variation in the north at earlier points in time, despite the fact that it had not been mentioned in the historical dialect literature. However, this evidence does not unambiguously rule out the possibility that these patterns are universal constraints on variability (Wolfram 2000) or are the result of the strong vernacular tendencies discussed by Chambers (2009). Contrastive dialect data is necessary.

The additional data from Devon in the southwest brings crucial evidence to the comparative arena of *was/were* variation. All the varieties share the NP/PRO distinction; however, given the fact that this pattern had spread across Britain by the Early Modern Period, this is not surprising. However, what of the dramatic demarcation across varieties with respect to the other two constraints? BCK, NPR, and GYE pattern together, while GYV and DVN pattern together. The question is why?

One way to interpret these linguistic results is to consider the history from which the varieties in these communities arose. While two (BCK and DVN) have remained in situ in Britain, NPR, GYE, and GYV are transported varieties whose original source may be traced back, at least in the first instance, to the United States. The precise nature and proportion of the dialect features in contact in the colonial United States during the early formative period of American dialects is, at best, uncertain. Relevant to the present discussion, however, is the general fact that a disproportionate number of British northerners went to the early American backcountry or interior South (Bailyn 1986; Bailyn and DeWolfe 1986). As detailed in Poplack and Tagliamonte (2001), the original input settlers to NPR and GYE can be traced to the southern states. GYV, on the other hand, is a variety that can be traced to the northern United States, an area with a large proportion of input settlers from southern England.

The patterning of checks and crosses in Table 6.5 reflect this. The three varieties that can be traced back to northern dialects of Britain or their input share the same three constraints, while GYV and DVN share a different set. This provides linguistic corroboration of the general sociohistorical facts and suggests a plausible interpretation of *was/were* variation in the North American context as being retention of earlier dialect patterns traceable to the British Isles.

In sum, when internal linguistic constraints are consistently compared in data of appropriate size, character, and nature, and if they also differentiate source varieties and/or regions, then they may hold the key to disentangling the thorny issue of dialect origins. Moreover, the convergence of evidence from three independent internal constraints exhibiting both parallel and contrastive patterns in a way that differentiates geographic dialects regions diminishes the possibility that they have arisen by chance or are entirely the result of universals. Finally, such findings highlight how vital it is to consider linguistic features of English in terms of the highly differentiated regional dialects at earlier stages of the development of the language, back at its British source.
13 Using Factor Weights to Measure Grammatical Change

Up to this point we have been considering evidence from constraints on morphosyntactic variation as evaluated through distributional analysis. Yet a great deal of variability in language comes from grammaticalization – a longitudinal process which may go on for centuries – and necessarily produces variability in the grammar (Hopper 1991: 23). As linguistic forms gradually shift from one function to another, their trajectory of development can be viewed in the varying strength and distribution of independent linguistic features associated with one of the evolving grammatical morphemes. Indeed, such environmental correlations are held to be the keys to viewing the mechanism of diachronic grammaticalization in synchronic data (Traugott and Heine 1991). Moreover, because this process is gradual, sometimes lasting for centuries, the tracks of language change can be preserved across regions and time. Practically speaking, such changes should be visible in an ordered series of shifts in factor weights (Labov 1982: 76). Thus, variation analysis, which can model complex constraints and relative weights of numerous factors that operate simultaneously on linguistic features, provides an invaluable tool for actually tracking a grammaticalizing linguistic feature (Labov 1972: 323).

14 Contextualizing Variation in Grammatical Change

Perhaps one of the best examples of ongoing grammatical change in contemporary English grammar is in the FUTURE REFERENCE system. Historically will and shall competed for this meaning; however, the construction going to began to encroach on their functions in the mid-1400s. It is said to be increasing over the twentieth century (Mair 1997), especially in American English (Leech 2003: 235), leading to the contemporary situation of robust variation between will and going to, as in (7).

(7)  a. I think she’s gonna be pretty cheeky. I think she’ll be cheeky. (YRK/O)
b. I think it’s gonna get worse before it’ll get better. (OTT/117)

15 Operationalizing Constraints on Grammaticalization

Contextual conditioning reported in the literature includes connotations of modality, degree of volition, certainty or prediction, intentionality, point of view, speaker attitude, probability, and so on, most of these simply not testable. Fortunately, at
least some of these gradient semantic distinctions may be tapped with more objectively testable aspects of the grammar and operationalized in a comparative sociolinguistic analysis (for an example see Poplack and Tagliamonte 1999; Torres-Cacoullos and Walker 2009).  

Subordinate clauses are often listed as one of the most favorable locations for going to, as in (8). Indeed, the first unambiguous occurrences of future going to were in subordinate clauses (Danchev and Kytö 1994). Another factor heavily implicated in this grammatical change is the person and number of the subject. First person subjects, as in (8), exercise volition the most and so they are predicted to resist going to in favor of will, which may retain nuances left over from its earlier lexical meaning of desire. At the same time, going to is thought to have started first with human subjects capable of movement as a holdover of the lexical meaning of the verb go. As the meaning generalized to prediction, going to began to appear with inanimate subjects, as in (8). This kind of lapse in restriction, here, on type of subject collocated with going to, is a common by-product of grammaticalization as an item extends in meaning. In this case, the subject is no longer confined to humans (or animates) capable of movement. Thus a propensity for going to with inanimate subjects is a sign of further grammaticalization. Finally, going to has long been associated with imminent future (proximity in the future), as in (8).

(8) a. I don’t know whether she’s gointa teach the sheep yoga or what! (YRK/t)
   b. I’ll get it. I can’t get it today, but I’ll get it so next time when you come down, I’ll show you. (GYE/7)
   c. It’s gonna cost me a fortune! (YRK/d)
   d. Now she’s gonna make sandwiches and bologna. (GYE/048)

These observations from the literature provide hypotheses about the development of going to which in turn provide critical diagnostics for the purpose of inter-variety comparison.

16 Language Change Across Varieties

Given the linguistic pathways of this grammatical change described above, consistent comparison of the forms used for FUTURE REFERENCE in varieties which are distinguished by their relative degree of participation in mainstream norms may provide a view of the mechanism of linguistic change. Table 6.6 shows four independent variation analyses testing the key predictors germane to the grammaticalization of going to. Once again, we compare across relevant contrasting data sets. The enclaves in Nova Scotia, Canada as spoken in NPR and GYE are expected to contrast with the rural variety spoken in GYV. Added to the comparison is a control sample of Standard Canadian English as represented by a sample of elderly residents of Ottawa, the capital city. This variety
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should reflect the most advanced stage of development of going to. The results are shown in Table 6.6 (adapted from Poplack and Tagliamonte 1999: 333, Table 3; 2001: 227, Table 8.2).

I focus here on: (i) the constraint hierarchy of each predictor and (ii) how this order reflects the direction predicted by the hypotheses in the literature. There are the noteworthy correspondences across varieties. Looking across the rows for each of the predictors, the hierarchical order of the values (the constraint hierarchy) is often the same.

However, there are three places where the varieties can be differentiated. First, although subordinate clauses favor going to across the board; the type of clause has the strongest effect in the enclaves, but a much weaker, second ranked constraint in GYV and OTT. The second difference is the effect of proximity. Going to is favored for immediate future reference (consistent with the literature) in GYV (where it is statistically significant) and in OTT (where the constraint is visible in

| PREDICTORS: |
|------------------|------------------|------------------|------------------|
| Type of clause   |                  |                  |                  |
| Subordinate      | .68              | .69              | .59              | .55              |
| Main             | .46              | .45              | .47              | .48              |
| Range            | 22               | 24               | 12               | 7                |
| Animacy of subject|                 |                  |                  |                  |
| Animate/human    | .50              | .50              | .50              | .48              |
| Inanimate        | .52              | .53              | .48              | .59              |
| Range            | 2                | 3                | 2                | 11               |
| Grammatical person|               |                  |                  |                  |
| 2nd and 3rd person| .51              | .57              | .54              | .61              |
| 1st person       | .49              | .42              | .46              | .38              |
| Range            | 2                | 15               | 8                | 23               |
| Proximity in future|               |                  |                  |                  |
| Immediate        | .49              | .53              | .66              | .59              |
| Non-immediate    | .52              | .48              | .35              | .43              |
| Range            | 3                | 5                | 21               | 16               |

Table 6.6 Variation analyses of going to in four Canadian varieties.
the ranking); but the effect of proximity is weak in the enclaves (the factor weights hover close to .50 and are also not significant). The third feature distinguishing the varieties is the effect of animacy. Only in OTT is there a notable difference between human and non-human subjects (.48 vs. .59), a context claimed to represent the most generalized and hence the most grammaticalized for going to (Bybee, Perkins, and Pagliuca 1994: 5). These differences can be interpreted as due to the fact that the different varieties are located at different points on the continuum of the grammaticalization of going to – OTT further ahead; the enclaves behind.

The position of GYV is pivotal. It shares its remoteness and relative isolation with the neighboring GYE (and to a certain extent the other enclaves), but shares ethnic, racial, and other characteristics with urban OTT. Its progress along the cline of grammaticalization straddles the two extremes. The effect of clause type has weakened parallel to OTT, but going to has not extended into inanimates and first person subjects have not specialized for I’ll.

These findings suggest that the language spoken by isolated speakers, whether of African or British origin, instantiates constraints that were operative at an earlier stage of the English language.

Once again, we may ask if the comparative method provides conclusive evidence. As convincing as these inter-variety correspondences are, further exploitation of the comparative method can bolster the evidence even more.

The findings up to this point are based on separate varieties of English spoken in different communities. These were in turn taken to reflect different points along the trajectory of grammaticalization of going to as a marker of FUTURE REFERENCE in the history of the English language. But how do we know that the inter-variety differences are actually the result of language change happening at different rates? Could they instead be the result of spontaneous parallel developments? To what extent can such claims be corroborated by evidence from change in apparent time in one variety? As Bybee and Pagliuca (1987: 297) suggest, it is necessary to study grammaticalizing morphemes “as these changes are taking place.” Thus, a further question to ask is to what extent the conditioning factors reported in a North American context can be replicated on varieties of English elsewhere.

17 Language Change in Apparent Time

In this section, I illustrate a quantitative analysis of the FUTURE REFERENCE system in a northern variety of British English (YRK). The sample was designed to include three broad age groups in order to examine the grammaticalization of going to in apparent time in a single speech community.

In this demonstration the data set was coded, analyzed, and then configured to replicate the analyses in Table 6.6. I focus here on the extent to which the constraint hierarchy of each predictor is shared by the age groups. These findings will be interpreted in terms of the progress of each generation along the cline of grammaticalization of going to as a marker of FUTURE REFERENCE. The results are shown in Table 6.7.
Consistent with Table 6.6, parallels in the constraint ranking of factors across age groups are evident, consistent with the known trajectory of going to. First, the neutrality between first vs. second and third grammatical subjects in the oldest generation shifts to a statistically significant favoring effect of going to with second and third person subjects in the youngest generation (i.e. I’ll is specializing for first person). Second, the tendency for use of going to with animate subjects generally, apparent in the contrast between factor weights in the oldest generation, is neutralized in the youngest generation. Third, the youngest generation in York has a favoring effect of proximate future reference not visible in either of the two older generations. Such incremental alternations in apparent time are consistent with the gradualness of grammatical change and reflect an ordered series of shifts in factor weights of the type noted by Labov (1982: 76). Moreover, each of the

<table>
<thead>
<tr>
<th>BRITAIN (NORTHERN ENGLAND)</th>
<th>OLD</th>
<th>MIDDLE</th>
<th>YOUNG</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proportion (%):</td>
<td>26</td>
<td>33</td>
<td>37</td>
</tr>
<tr>
<td>Corrected mean:</td>
<td>.25</td>
<td>.32</td>
<td>.36</td>
</tr>
<tr>
<td>Total N:</td>
<td>409</td>
<td>387</td>
<td>534</td>
</tr>
</tbody>
</table>

**PREDICTORS:**

**Type of clause**

Subordinate: .52 .55 .56  
Main: .50 .49 .49  
Range: 2 6 7

**Animacy of subject**

Animate/human: .51 .56 .50  
Inanimate: .39 .49 .50  
Range: 12 7 0

**Grammatical person**

2nd & 3rd person: .52 .58 .58  
1st person: .48 .40 .41  
Range: 4 18 17

**Proximity in the future**

Immediate: .46 .48 .61  
Non-immediate: .53 .51 .45  
Range: 7 3 16
Evaluation

trends is comparable to the findings from the North American varieties studied previously. The same path is visible in the behavior of each measure of grammaticalization in apparent time just as it was visible across varieties. This provides additional corroboration that the effects are typical of English and part of the broader grammatical changes underway in the FUTURE REFERENCE system of the language.

The apparent time trends in York can be corroborated by running a mixed effects model of the same data with all the individuals (N=52) combined using a mixed effects model (lme4) in R (Team 2007). This statistical tool can straightforwardly measure the interaction between competing predictors as well as treat individuals as a random effect in the model (Baayen 2008). Configuring the analysis in this way enables us to provide additional statistical evidence to support the fact that: (i) the fixed-effect predictors are significant over and above the effect of the individuals in the sample; (ii) the changes by age group are significant; and if so, (iii) whether the fixed-effect predictors are relatively stronger (see also Melnick and Rickford 2011). Table 6.8 presents the results.

The analysis in Table 6.8 is based on 1,322 tokens (Number of obs) and 52 individuals. The significant results are represented in bold face and can be interpreted as follows: First, the only linguistic factor that is statistically significant in this model is animacy. The constraint ranking of factors is inferred from the difference between the reference level at 0 (in this case “Animate”) contrasted with inanimate subjects “Inanimate.” The coefficient is positive at 1.07, indicating a strong effect of going to for these subject types. The significance level is p < .01, as indicated by the stars, “**.” Second, and more importantly for the comparative enterprise, the results provide the statistical measure of each interaction tested in the model. Unlike the results in a variation analysis using Goldvarb, we can see immediately where the interactions are significant. The strongest effect is the contrast between animacy and the difference between the middle-aged and young group, at p <.001, as indicated by the stars “***.” Another significant effect is evident between animacy and the middle-aged and old group at p < .05, as indicated by the single star, “*.” Third, the interaction between grammatical person and the middle-aged and young groups is significant, at p < .01. These results suggest that the changes in going to have accelerated among the youngest speakers in the sample. In contrast to the results in Table 6.6, this analysis has found no effect of proximity, neither in the overall analysis nor in the interactions by age group. Taken together, we can now focus our attention on the three predictors that are significant to the grammatical changes undergone by going to – grammatical person, animacy, and type of clause.

The question now is how do these predictors work together to shift the FUTURE TEMPORAL REFERENCE system forward? An additional perspective can be obtained by using a statistical technique called a conditional inference tree (Breiman 2001). This type of analysis detects subtle interactions in the data and displays them using a hierarchical visualization (Tagliamonte and Baayen 2012). The results of a conditional inference tree analysis using the predictors found to be significant in Table 6.8, is shown in Figure 6.5.
Table 6.8  Generalized linear mixed model of going to in York.

Generalized linear mixed model fit by the Laplace approximation
Formula: dep.var ~ ref.pt + prox.new + ANIIMACY + TYPE.OF.CLAUSE + GRAMMATICAL.PERSON + age.grp + ref.pt * age.grp + prox.new * age.grp + ANIIMACY * age.grp + GRAMMATICAL.PERSON * age.grp + TYPE.OF.CLAUSE * age.grp + (1 | name)
  Data: fut11
  AIC  BIC logLik deviance
        1472 1571  -717   1434

RANDOM EFFECT:
  Groups Name    Variance Std.Dev.
  individual  (Intercept) 0.28307 0.53204

Number of obs: 1322, groups: individual, 52

FIXED EFFECTS:

| Estimate  | Std. Error | z value | Pr(>|z|) |
|-----------|------------|---------|----------|
| (Intercept) -1.83104 | 0.39328    | -4.656 | 3.23e-06 *** |
| prox.newlater 0.27857 | 0.40267    | 0.692 | 0.489062 |
| ANIIMACY Inanimate 1.07135 | 0.40865    | 2.622 | 0.008749 ** |
| TYPE.OF.CLAUSE Subordinate 0.13021 | 0.30590 | 0.426 | 0.670363 |
| GRAMMATICAL.PERSON Other 0.01489 | 0.26387 | 0.056 | 0.954986 |
| age.grp Old 0.05579 | 0.54902 | 0.102 | 0.919059 |
| age.grp Young 0.46775 | 0.53634 | 0.872 | 0.383149 |

INTERACTIONS:

prox.newlater:age.grp Old -0.06063 | 0.55474 | -0.109 | 0.912973 |
prox.newlater:age.grp Young 0.01949 | 0.53114 | 0.037 | 0.970725 |
ANIIMACYI:age.grp Old -1.51684 | 0.71406 | -2.124 | 0.033650 * |
ANIIMACYI:age.grp Young -1.75319 | 0.52927 | -3.313 | 0.000925 *** |
GRAM.PERSON other:age.grp Old -0.34388 | 0.39686 | -0.867 | 0.382611 |
GRAMM.PERSON other:age.grp Young 0.89678 | 0.33850 | 2.649 | 0.008066 ** |
TYPE.OF.CLAUSES:age.grpO 0.45643 | 0.45711 | 0.999 | 0.318033 |
TYPE.OF.CLAUSES:age.grpY 0.18026 | 0.39341 | 0.458 | 0.646805 |

Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1
The central split at the top of the tree shows that age group is the most important predictor. This provides a striking confirmation that the grammar of *going to* has shifted from the middle and older generations (M,O) to the youngest group (Y). Moreover, the constraints in each age cohort are ordered differently. Among the middle and old age groups the only factor conditioning *going to* is the type of clause: subordinate clauses favor *going to* – undoubtedly a legacy effect from the earliest stages of development since this effect has been reported throughout the history of this change. However, among the younger people, the system has reorganized such that *going to* has encroached into the majority of second and third person subjects, but first person resists, favoring *will*. In second and third grammatical persons (labeled “other”), the type of clause constraint remains intact with *going to* still favored in subordinates. Where animacy in general was relevant for the entire group of individuals (Table 6.8), the first person constraint comes to the fore among the youngest speakers (Figure 6.5). The complex interaction among these factors exposes how the effect of grammatical person has changed over time and corroborates the findings from the age group variation analyses in Table 6.7.

Such incremental alternations in apparent time are consistent with the gradualness of grammatical change and expose the ordered series of shifts of the type noted by Labov (1982: 76). We may interpret this to mean that the recent evolution of the FUTURE TEMPORAL REFERENCE system in York has involved a strong specialization of *I’ll*. This is consistent with the idea that older grammatical morphemes become fused and short (Bybee et al. 1994: 47). It is also compatible with the findings from the North American varieties studied previously where neither animacy nor grammatical person were relevant in the enclaves, but increasing strength of grammatical person is visible across varieties (Table 6.6).
In sum, the analyses of Canadian varieties and of York generations in conjunction with one another show how grammatical change can be viewed in synchronic data. Further, they expose the lexical history of a grammaticalizing form in the variable constraints on its grammatical distribution. This trajectory may be viewed across sister varieties as well as across different generations of the same community. The differences and similarities across the generations in York and across varieties in North America can be attributed to the evolution of going to as a marker of FUTURE REFERENCE in English. While it is progressing according to universal pathways of change, the communities reflect different milestones in this development. These findings also lend support to the hypothesis that the relative degree of grammaticalization across communities is related to the different ecological circumstances of their sociocultural history (Poplack and Tagliamonte, 1999; Tagliamonte and Smith 2000). Finally, the multidimensional comparative perspective exposes an additional and broader dimension. Grammaticalization of going to has progressed more quickly in North America than in Britain, and there appears to have been an acceleration of that change among young adults, at least in York. Further comparative research will fill in more of the emerging picture of the grammaticalization pathways of going to.

18 Validating Accountability and Proportional Analysis

The studies I have summarized throughout this chapter apply a rigorous set of methodological principles to the study of language variation and change from a comparative cross-variety perspective. The procedures discussed here provide empirically based validation of the importance of accountability and proportional analysis. They demonstrate the critical information provided by constraint ranking, the relative strength of effects, and statistical significance. At the same time, none of these lines of evidence is conclusive without numerous additional procedures. Checking individual vs. groups patterns, lexical effects, statistical fluctuation from small cell sizes, complex interaction between constraints, and other problems are all integral to the method illustrated here (see Poplack and Tagliamonte 2001; Tagliamonte 2006a). Any of these can mitigate confidence in the conclusions that can be drawn from a given data set. Thus, while an arsenal of statistical tools provides a powerful means to evaluate and explain variation, any comparison is only as good as the accountability of the analysis that underlies it.

As language variation and change research develops further the application of sophisticated statistical methods and a consistent comparative dimension will undoubtedly become increasingly more important, and techniques will become more refined. Such developments will increase the need for detailed linguistic and sociolinguistic criteria for determining the provenance, or system membership, of linguistic features. Moreover, as more data sets are discovered, collected, and added to the body of materials available for analysis, it will become even more essential to maintain rigorous and replicable methods. Although comparative reconstruction can be complicated by numerous factors, appropriate data exploited
within a methodological framework such as described here can go a long way toward fulfilling the challenges of this continually evolving field.

NOTES

1 Further information on the sociohistorical and linguistic characteristics of these varieties can be found in the references cited in each section.
2 The exception is first person plural in GYE which has a heightened factor weight for was in comparison to BCK and NPR (for further discussion see Tagliamonte and Smith, 2000).
3 Of course, the early colonization period in the United States was fraught with language and dialect contact (Kurath 1928, 1949, 1964; Montgomery 1989: 236) as well as the dialect mixture in Britain pre-dating the large-scale migrations to North America in the 1700s. These, and other extralinguistic factors undoubtedly also influenced the shaping of the varieties which emerged in North America in the early colonization period. However, these analyses focus on broad trends that can be inferred from migration patterns and population proportions from the historical record (Bailyn 1986; Bailyn and DeWolfe 1986) and rely on the details of the linguistic evidence for corroboration.
4 In the analyses that follow I do not report the overwhelming effect of future in the past, which is significant in every community and for every generation and shows no change over time or space. I also do not discuss the effect of lexical verb, which was discussed cursorily in the previously published version of this chapter (Tagliamonte 2002).
5 Where data sets are relatively small, predictors may not achieve statistical significance; therefore, the patterns in the data (constraint ranking) become critical for interpretation (see Poplack and Tagliamonte 2001 for further discussion). This is why the range values, which are normally not reported for non-significant predictors, have been listed in the tables. The differences across range values provide insight into the relative strength of the predictor.
6 This may be the result of idiosyncratic (and therefore disproportionate) representation of temporal reference contexts by individual. I will not pursue this here.

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The study of language attitudes focuses on the linguistic clues that both guide a hearer to a speaker’s group membership and trigger the hearer’s beliefs about the group. Classic work in the social psychology of language elaborates on the substructure of such belief through various techniques. It is also clear, however, that language has a life of its own and that our folk beliefs about various aspects of language also play an important role in understanding the foundations for language attitudes. In addition, although stereotypes are strong in attitudinal responses, they must be interpreted through the template of folk theories of language as well as of groups. The results of both folk and attitudinal studies are tied here to a more linguistically oriented interpretation, one which tries to develop a connection among performance, attitudes, perceptions, acquisition, and variation.

1 Language and People

It is perhaps the least surprising thing imaginable to find that attitudes towards languages and their varieties seem to be tied to attitudes towards groups of people. Some groups are believed to be decent, hard-working, and intelligent (and so is their language or variety); some groups are believed to be laid-back, romantic, and devil-may-care (and so is their language or variety); some groups are believed to be lazy, insolent, and procrastinating (and so is their language or variety); some groups are believed to be hard-nosed, aloof, and unsympathetic (and so is their language or variety), and so on. For the folk mind, such correlations are obvious, reaching down even into the linguistic details of the language.
or variety itself. Germans are harsh; just listen to their harsh, guttural consonants. US southerners are laid-back and lazy; just listen to their lazy, drawled vowels. Lower-status speakers are unintelligent; they don’t even understand that two negatives make a positive, and so on. For many social psychologists, these correlations carry considerable weight; as Edwards puts it, “People’s reactions to language varieties reveal much of their perception of the speakers of these varieties” (1982: 20).

Linguists, by contrast, find the structure of language everywhere complex and fully articulated, reflecting, as most present-day scholars in the field would have it, the universal and species-specific human capacity for language. Where consonants are made, how vowel length is distributed, and what morphological, lexical, syntactic, semantic, and pragmatic strategies are employed are all reflexes of the complex interaction of the underlying components of the organizing system which lies behind human language. Nevertheless, understanding the relationship between group stereotypes and linguistic facts, no matter how scientifically suspect at the linguistic end, appears to be particularly important in accounting for the social identities we infer and respond to.

Social psychologists were greatly concerned with establishing language-and-people connections. Questionnaires, interviews, and scaling techniques asked people directly about their feelings, including racist, sexist, classist, regionalist, or other prejudicial attitudes. The results were suspect because they allowed respondents to disguise their feelings, either to project a different self-image and/or to give responses they thought the interviewer might approve of.

An early method used to circumvent respondent manipulation was the “matched-guise” technique. The Canadian social psychologist Wallace Lambert and his colleagues played recordings to their subjects in French and English to determine attitudinal responses to these two languages in French-speaking Canada (Lambert et al. 1960). Though the subjects did not know it, the speaker was the same person in two “guises” (to avoid voice quality interference in judgments). Subjects judged the voices on scales of paired opposites such as “fast–slow,” “heavy–light,” and so on. Their responses did not appear to directly assess language characteristics, but instead revealed underlying stereotypes based on their language attitudes.

The success of the method set off a frenzy of such studies, most fully developed in the work of Howard Giles and his various associates, and provided both examples and theoretical foundations in Giles and Powesland (1975). Lambert et al. (1960), for example, found that native English-speaking Canadians considered the English guises of the male voices used in the experiment to be better looking, taller, more intelligent, more dependable, kinder, more ambitious, and having more character than the same voices in their French guise. Surprisingly, native French-speaking Canadians showed nearly the same bias, rating the French guises more favorably only for the two traits of kindness and religiousness; moreover, the native French judges evaluated the French guises even more harshly than the native English judges did, leading to the understanding that the evaluation was widespread, even at the expense of downgrading their own linguistic behavior.
Further work in this format provided a lasting template for attitude studies – the “three factor groups.” Analyses of large amounts of data regularly grouped together various paired opposites which pointed to the constructs of *competence*, *personal integrity*, and *social attractiveness* in the evaluation of speaker voices (summarized in Lambert 1967). Subsequent research has confirmed that these constructs are very often at work, and, more interestingly, that standard or “admired accent” speakers are most often judged highest on the *competence* dimension while nonstandard and regionally and/or ethnically distinct speakers are often rated higher for the *integrity* and *attractiveness* dimensions. More recent work has often conflated the two latter categories into one, usually referred to as *solidarity* (e.g. Edwards 1982). Surveys and samples of much of this work is available in Ryan and Giles (1982).

The path from stimulus to identification to attitudes, however, was not trouble-free. In a study of evaluations of regional and ethnic varieties in the US, Tucker and Lambert (1969) found that neither northern nor southern European-American judges accurately identified the ethnicity of educated African-American speakers better than chance. If judges do not identify the group membership of the stimulus voice correctly, how can accurate attitude judgments be collected? Milroy and McClenaghan (1977), however, found an interesting consistency of ratings of Scottish, southern Irish, Ulster, and RP (“Received Pronunciation,” the superposed British-English standard pronunciation) varieties even when judges did not identify accents correctly. They comment on this finding as follows:

> It has been widely assumed that an accent acts as a cue identifying a speaker’s group membership. Perhaps this identification takes place below the level of conscious awareness. . . . Presumably by hearing similar accents very frequently [one] has learnt to associate them with their reference groups. In other words, accents with which people are familiar may *directly* evoke stereotyped responses without the listener first consciously assigning the speaker to a particular reference group. (1977: 8–9; italics in original)

Irvine (2001) explains this transfer of social stereotypes to linguistic features which makes the unconscious reactions Milroy and McClenaghan found more understandable:

> Iconization is a semiotic process that transforms the sign relationship between linguistic features and the social images to which they are linked. Linguistic differences appear to be iconic representations of the social contrasts they index – as if a linguistic feature somehow depicted or displayed a social group’s inherent nature or essence. (2001: 33)

Since the presumed social attributes of a group can be transferred to linguistic features associated with it, occurrences of those features may directly trigger those attributes without being filtered through (conscious) identification of the group. Extremes of such iconicity in American English might include “ain’t” and multiple
negation, both of which apparently trigger negative evaluations with no need for any group association.

Matched-guise research was not without criticism, however, for its artificiality and other drawbacks (e.g. Agheyisi and Fishman 1970), and a number of modifications have been made to improve the technique (e.g. Fasold 1984: 152–158). In one, for example, Welsh-speaking theater-goers were asked to fill out a short questionnaire after a play. On one evening they were asked to do so in Standard British English (RP), on another in mildly accented Welsh English, on another in broadly accented Welsh English, and on another in Welsh. The percentage of completions rose from a very low 2.5 percent for the RP request to a high of 26 percent for the Welsh request (with the Welsh-accented English voices eliciting between 8 and 9 percent compliance) (Bourhis and Giles 1976: 15). The attitude to varieties here is triggered in a natural rather than experimental setting and is measured by the natural behavior of compliance or noncompliance rather than by Likert-scale paired opposites.

With improvements such as these, the program of social psychological research into language attitudes has been productive, but there are at least two very large areas left relatively unexplored:

1. What specific linguistic features play roles in triggering attitudes?
2. What beliefs (theories, folk explanations) do people have about language variety, structure, acquisition, and distribution that underlie and support their attitudinal responses, and how might we discover and use them to supplement and even guide future language attitude research?

2 The Linguistic Detail

The study of the relative importance of specific linguistic features has not been prominent in the work of social psychologists. They have typically used such global stimuli as “languages” or “dialects” (the latter in the broad sense to include class, gender, age-related, and even second-language varieties). Sociolinguists, armed with the knowledge of the delicate variability of detail in performance, have sought to find out if that variation is mirrored in judgment.

Aware of the low regard in which their variety is held, New Yorkers have, as a rule, rather severe linguistic insecurity. Labov’s work in the 1960s (1966) shows that they are also sensitive to specific linguistic features that they most strongly associate with their negatively evaluated speech. For example, the pronunciation of non-prevocalic “r” in New York City (NYC) is the prestige form, as shown in Figure 7.1. Higher-status speakers and all speakers when they are more careful of their speech are more likely to pronounce such words as “car,” “here” and “door” with a final “r.”

Labov designed perhaps the first linguistically sensitive attitude research experiment in which he asked NYC judges to listen to passages with such sentences as “He darted out about four feet before a car and got hit hard” and “We didn’t have the heart to play ball or cards all morning.” The same female respondents read
these passages several times, and Labov obtained samples in which they always used “r” and others in which they deleted “r” only once (one in the word hard in the first passage and another in cards in the second). He called these the “consistent r” and “inconsistent r” samples. He then played both samples of each woman’s performances interspersed with other voice samples and asked NYC judges from several different social status groups to pretend that they were personnel managers who were to rate the voice samples they heard for occupational suitability on a seven-point scale (Labov 1966: 283):

TV personality
Executive secretary
Receptionist
Switchboard operator
Salesgirl
Factory worker
None of these

The judges in every social status group rated the “inconsistent r” performances lower on the occupational suitability scale by dramatic margins. Figure 7.1 shows the average drop in ratings along this scale for the “consistent r” and “inconsistent r” performances for judges ages 18–39. For example, if a lower- or working-class judge said that a “consistent r” performance was that of an “executive secretary,” then they were likely to rate the “inconsistent r” presentation as that of a “factory worker” (four steps down the scale). Upper-middle-class judges rated the two performances less dramatically different (only three steps down the scale for the “inconsistent r” performance), and such differences allowed Labov to consider at the same time the differential rates of “r” production according to status and the different judgments of variable “r” production by the same groups (Labov 1966: 313).
New Yorkers are, as these ratings show, extremely sensitive to even mild use of “r”-deletion, rating speakers three to four full categories down on the seven-point occupational scale when they fail to realize only one out of four or five instances of this feature. No doubt such tests can be developed for a large range of linguistic features. Of course, they should test, as Labov did, the sensitivity of outgroup as well as ingroup respondents (expecting that different features and different degrees of sensitivity might emerge).

Since Labov played New York voices for New Yorkers, one might ask what role linguistic detail plays in the recognition (and, presumably, subsequent evaluation) of a greater variety of voices, particularly when evaluation may be done along scales tuned to discover more than occupational suitability. Purnell et al. (1999) recorded three versions of the same speaker saying “hello” in Chicano-English (ChE), African American Vernacular English (AAVE), and Standard American English (SAE). Table 7.1 shows that, even though they were exposed to only one word, the respondents identified ethnicity far better than chance (at an “Accuracy Index” level of .72, indicating that better than 70 percent of the tokens were correctly identified). The diagonal cells (a, e, and i) should be approximately 33 percent each if the respondents had been 100 percent accurate, and two of the cells (e and i, at 27 and 29 percent, respectively) are very close to that ideal. Only cell a is low (at 15 percent), and cell g shows why: 14 percent of the AAVE voices were incorrectly recognized as SAE.

Although this one discrepant cell is difficult to account for, the acoustic factors which allowed identification appear straightforward. In an analysis of the tokens of “hello,” it was found that the first vowel (/ε/) was significantly fronter (determined by extracting its F2 value) in the AAVE and ChE guises. Additionally, pitch peak was higher for the /he/ syllable in the AAVE guise token only (as was syllable duration). With these minimal acoustic cues, therefore, AAVE and ChE could be distinguished from SAE (on the basis of a fronter or tenser /ε/ vowel), and AAVE could be distinguished from ChE (and further from SAE) on the basis of pitch peak and syllable duration. Purnell et al. (1999) also show how dialect identification allows the realization of attitudinal factors in specific action, for the three...
varieties used in the acoustic experiment were also used in telephone calls to prospective landlords (each of which began with the sentence “Hello, I’m calling about the apartment you have advertised in the paper”). The two non-SAE varieties fared considerably worse in securing appointments; for example, in the Woodside (CA) area, the SAE speaker guise was given an appointment to see housing at roughly the 70 percent level; both AAVE and ChE guises were given appointments only about 30 percent of the time.

These approaches to linguistic detail in attitude study (or to the background information respondents use in making judgments which reflect attitude) have not assumed any level of awareness of the feature in question by the respondents themselves. In fact, Labov reports that “[r]eactions to phonological variables are inarticulate responses, below the level of conscious awareness” (1966: 279). In other work, however, more direct appeals have been made. Modifying a “Self-Evaluation Test” developed in Labov (1966), Trudgill (1972) measured the difference between performance and self-report for a number of variables in Norwich English. A respondent was acquainted with a local variable and asked to make a self-report of his or her use of it. For example, the vowel of “ear” has a prestigious form [ɪə] and a nonprestigious (local) form [ɛː]. Trudgill classified his respondents as speakers of the prestige form if they used more than 50 percent of that form in the casual speech portion of their interviews. He then classified as “over-reporters” those respondents who claimed to use [ɪə] but, in fact, preferred [ɛː] in their casual speech. Likewise, he classified as “under-reporters” those who claimed to use [ɛː] but in fact preferred the prestige form in their casual speech. The remaining respondents were classified as “accurate.” His results are shown in Table 7.2.

These data show that men say they use a great deal more of the nonprestigious form than they actually do and that women say they use more of the prestigious one. From this, Trudgill suggested that some variables have “covert prestige,” an attraction based on working-class, local, non-school-oriented norms and particularly appealing to men. Women, he suggested, were more oriented to the overtly prestigious norms of the wider society, perhaps because of a sex-related power differential. Although Trudgill’s conclusions are far-reaching for work on sex in particular, here it is simply important to note that his respondents provided interesting attitudinal information based on specific linguistic features and that those responses were made at a conscious level.

<table>
<thead>
<tr>
<th></th>
<th>Total</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>Over-r</td>
<td>18</td>
<td>12</td>
<td>25</td>
</tr>
<tr>
<td>Under-r</td>
<td>36</td>
<td>54</td>
<td>18</td>
</tr>
<tr>
<td>Accurate</td>
<td>45</td>
<td>34</td>
<td>57</td>
</tr>
</tbody>
</table>

Attitude, however, may mislead assessment of others’ performances as well as our own. Niedzielski (1999) studied the local (Detroit) awareness of “Canadian raising,” in which the onsets of the /ɑʊ/ and /ɑɪ/ diphthongs are raised before voiceless consonants. She played a Detroit female speaker’s pronunciation of the word “house” in which the onset of /ɑʊ/ was considerably raised (to [ʌʊ]). Although Detroiters associate this pronunciation with Canadians (even caricaturing it with an inaccurate [hus] imitation), they quite regularly use it themselves, as does this woman. Niedzielski asked Detroit respondents to match this woman’s vowel with one of three other synthesized tokens. The first vowel (#2 in Table 7.3) she called “ultra-low” with an onset considerably below the F1 norm for /ɑ/ in local speech. The second, “canonical” /ɑ/, represents the position of /ɑ/ as given in Peterson and Barney (1952), an acoustic study of US vowels from several areas of the country. The third token in the matching task was called “actual” – the same token used in the sample itself, in which the onset was considerably raised, a common pronunciation in Michigan. Niedzielski divided her respondents into two groups. One received an answer sheet which had the word “CANADIAN” prominently printed (in red) at the top of the page; the other received an answer sheet with the word “MICHIGAN” at the top. Both groups heard exactly the same vowels. Any difference in token-matching by the two groups, therefore, could be attributed to the apparent identification suggested by the words CANADIAN or MICHIGAN.

As Table 7.3 shows, the labeling had a strong effect: 60 percent of the 40 respondents who had the word CANADIAN printed on their response sheets matched the token with the “actual” one (i.e. accurately) in contrast to only 11 percent of the 39 who had sheets with MICHIGAN on them. Fully 51 percent of them heard the token as “canonical /ɑ/” and 38 percent even heard it as “ultra-low.” It is obvious that the putative identification of the home site of the sample voice exerted an enormous effect on the sound matched by the respondents.2 Why these Michigan respondents refuse to hear their own (or local) voices accurately can be explained only by an appeal to attitude – Michiganders believe that Michigan speech is the most correct in the United States (Preston 1996 and below);

### Table 7.3 Influence of nationality labels on token selection (for “house”).

<table>
<thead>
<tr>
<th>Label</th>
<th>#2 ultra-low</th>
<th>#3 canonical /ɑ/</th>
<th>#4 actual token</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>CANADIAN (%)</td>
<td>15</td>
<td>25</td>
<td>60</td>
<td></td>
</tr>
<tr>
<td>n =</td>
<td>6</td>
<td>10</td>
<td>24</td>
<td>40</td>
</tr>
<tr>
<td>MICHIGAN (%)</td>
<td>38</td>
<td>51</td>
<td>11</td>
<td></td>
</tr>
<tr>
<td>n =</td>
<td>15</td>
<td>20</td>
<td>4</td>
<td>39</td>
</tr>
</tbody>
</table>

*Source: Niedzielski (1999: 66).*
linguistic units that deviate from this perceived standard (as Canadian Raising would), could not be spoken by Michiganders. The attitudinal component has clearly interfered with perceptual accuracy.

Labov (1966) elicited the evaluation of variables in the construction of an “Index of Linguistic Insecurity.” He asked respondents in his New York City study which of two variants (e.g. [kætʃ] versus [kɛtʃ]) of a number of variables was “correct” and which they typically used themselves. When they noted that one was correct but that they used the other, he added a point to their insecurity index. Although this study showed that the most insecure group was the lower-middle class (paralleling a distinct linguistic insecurity he had shown in their hypercorrect behavior in performance), it did not show the degrees of insecurity associated with the specific variables. In a modification of this study, however, in Winnipeg, Canada (Owens and Baker 1984), most insecurity seemed to arise from the failure to use conservative, prescriptive norms (e.g. trisyllabic realization of “diapers,” /r/ in “February,” /k/ in “arctic”).

Al-Banyan and Preston (1998) presented a number of traditionally nonstandard morphosyntactic and syntactic constructions to undergraduate students at a US university. In each case, the respondents were asked if they would (i) always use the construction given, (ii) use it only formally, (iii) use it in ordinary, “on-the-street” interaction, (iv) use it only very casually, or (v) never use it. For example, they were asked to evaluate the sentence “The award was given to Bill and I,” illustrating the hypercorrect (but historically well-precedented) substitution of the nominative for oblique case in conjoined noun phrases in object position. They were also asked to supply the form they would use in the variety of situations if they did not choose the form given. Their responses were coded according to whether they chose “me,” “myself,” or “other” as the alternative, and Figure 7.2 shows the results.

![Figure 7.2](image_url)

**Figure 7.2** Results of ratings of “They gave the award to Bill and I.”
*Source: Al-Banyan and Preston (1998: 34).*
Only 21 percent of the respondents indicated that they would never use this form, and of those the majority (16 percent) indicated that they would use the prescriptively sanctioned “me”; but 28 percent of all respondents chose “I” as the form they would use in “formal” situations, indicating that they would use “me” in less formal contexts. Thirty-one percent (the highest percentage) indicated that “I” was appropriate for all contexts. If “standard” usage can be determined by actual usage norms, such studies reveal that the modern standard (for these university students, reflected in the combined “formal” and “always” categories at a level of 59 percent) has shifted from the one that even liberally-minded linguists might agree on.

Since the original intent of the matched-guise format was to direct respondent attention away from linguistic evaluation, many of the above experiments might be discredited, perhaps particularly by modern social psychologists, who seem devoted to indirect (or “implicit”) studies of attitude (e.g. Gawronski and Payne 2010). Linguists have, however, intentionally and unintentionally, carried out such implicit studies.

Plichta and Preston (2005) set out to discover if US respondents were sensitive to degree of monophthongization of /ɑːj/, a feature of southern US speech. To accomplish this, they resynthesized the word “guide” in a seven-step continuum, from a (northern) fully-diphthongized version ([ɑːj]) to a (southern) fully-monophthongized one ([aː]). They then asked respondents to associate each pronunciation (played in random order) with the sites on a map of the middle of the US that ran from a northernmost city (Saginaw, Michigan) to a southernmost one (Dothan, Alabama). The cities, roughly equidistant from one another, were numbered one through nine (north to south). A means score was assigned to each of the seven steps of the “guide” continuum to determine its relative north-southness, and the respondents detected the seven gradations very efficiently in terms of that scale. The fully diphthongized version received a score of 2.85, most “northern,” and the fully monophthongized version a score of 7.02, most “southern” (121). The other five versions were “correctly” scaled between these two. Attitudes towards monophthongization, however, do not appear to play any role here, but both male and female voices were submitted for placement. Since they were resynthesized for degree of monophthongization, there was no difference in that feature between them, but, as Figure 7.3 shows, regional placements were considerably different.

The male and female voice samples are significantly different at each of the seven steps, and the female voice has a lower (i.e. more northern) score in each case. Why would equally monophthongal samples from women be judged more northern? In this case, non-linguists would appear to share the sociolinguistic commonplace that women’s speech is more standard than men’s (Labov 1990 and suggested in the discussion of Trudgill 1972 above). Since women speak more standardly, they cannot be rated as more or even equally southern since that region is consistently rated low for standard speech (Preston 1996 and below). Again, an attitudinal factor has interfered with a perceptual one.
Such studies show that language attitudes can be related very specifically to individual linguistic features, but that relationship is not a simple one. In some cases, precise acoustic features appear to trigger accurate identification (e.g. the frontness or tenseness of the vowel and pitch prominence on the first syllable of “hello” as in Purnell et al. 1999); in others, the frequency of one variant or another has a powerful effect on social judgments (e.g. r-deletion in New York City as in Labov 1966); in still others, there may be a great deal of inaccuracy in both self-report of the use of a specific feature (e.g. the vowel of “ear” as in Trudgill 1972) or in the identification of the vowel quality of a specific feature (e.g. the presence of “Canadian Raising” as in Niedzielski 1999, or the degree of monophthongization in Plichta and Preston 2005).

This range of attitudes for precise linguistic features should come as no shock to sociolinguists, who have found just such careful tuning in the factors that govern production, reaching from Fischer’s (1958) account of how gender and status guided children’s production of the velar and alveolar variants of “-ing” to Schilling-Estes’ (1998) account of how membership in a male poker-playing network predicted the use of a classically “local” variant of /ɔɪ/ on Ocracoke Island, North Carolina. It is hardly surprising, therefore, to find that finely-tuned choices among linguistic features, reflecting the social forces which surround them, play as complex a role in attitudinal formation and perception as they do in language production. In fact, it seems that perception, evaluation and production are intimately connected in language variation and change, and that much that might go by the name “language attitude study” could as well be known as “sociolinguistics.”

**Figure 7.3** Differences in regional (north-south) placement of male and female voices. *Source: Plichta and Preston (2005: 121).*
3 Attitudes and Folk Perceptions

Since linguists know, however, that linguistic details have no value of their own (in spite of the “life” they seem to achieve by virtue of their social associations), it is important to return to the second of the questions posed above: what underlying beliefs, presuppositions, stereotypes, and the like lie behind language attitudes? Ultimately, this will require us to seek a folk theory of language, and that may force us to ask different questions or to ask them in a somewhat different way from the more classically designed attitude measures outlined above.

In language attitude research, for example, perhaps it is important to first determine which varieties of a language are even thought to be distinct. Where do people believe linguistically distinct places are? What mental maps of regional speech areas do they have? Preston (1989a) complained that language attitude research did not determine where respondents thought regional voices were situated and, worse, did not know if respondents even had a mental construct of where a voice could be from; that is, their mental maps of regional speech areas might not include one with which a sample voice could be identified.

For example, if one submitted a voice from New England to California judges and the judges agreed that the speaker was “intelligent,” “cold,” “fast,” and so on, researchers could reasonably conclude that Californians judged the voice sample in that way. They could not conclude, however, that that is what Californians believe about New England voices, for a majority of the judges might not have agreed that the voice was from New England. (Perhaps they would have called it a “New York” voice.) More generally, Californians may not even have a concept of “New England” speech. Perhaps the most detailed mental map of regional US speech available to them is one which simply identifies the “Northeast” (whatever their folk name for that region might be).

How can we devise research which avoids this problem? Following the lead of cultural geographers (Gould and White 1974), we might simply ask respondents to draw maps of where they believe varieties are different. Figure 7.4 and Figure 7.5 are typical examples of such hand-drawn maps from Michiganders.

Although we may profit from an investigation of these individual maps (by, for example, looking at the labels assigned to various regions, as in Hartley and Preston 1999), some of their usefulness depends on the degree to which generalizations may be drawn from large numbers of such maps. This may be done by drawing an (approximate) boundary for each salient region from the first map and then “overlaying” each subsequent respondent’s map and drawing the “perceptual isoglosses” for each region. A more sophisticated version of this procedure makes use of a digitizing pad which feeds the outlined area of each salient region into a computer so that a more precise numeric determination can be made of the “boundary” of each hand-drawn region (Preston and Howe 1987). Figure 7.6 shows a computer-determined map for the mental map of US regional speech areas derived from the hand-drawn maps of 147 southeastern Michigan respondents (from a variety of status and age groups, male and female).
Armed with this “cognitively real” map of the dialect areas of the USA (as seen by Michiganders), we might now approach the study of attitudes towards these regions more classically by asking what characteristics would be relevant to an investigation of attitudes to these speech areas. Characteristics were elicited by showing a large number of Michigan respondents a simplified version of Figure 7.6.
and asking them to name any characteristics of the speech of those regions that came to mind. The most frequently mentioned items were then selected and arranged into the following pairs (Preston 1999: 363):

- slow–fast
- formal–casual
- educated–uneducated
- smart–dumb
- polite–rude
- snobbish–down-to-earth
- nasal–not nasal
- normal–abnormal
- friendly–unfriendly
- drawl–no drawl
- twang–no twang
- bad English–good English

It was important that the Michigan map was shown to Michigan respondents and that the characteristics elicited were to be used by Michigan judges. Respondents from other areas presumably have different mental maps and would list other characteristics.

The judges – 85 young, European-American lifelong southern Michigan residents who were undergraduate students at Michigan State University – were shown a simplified version of Figure 7.6 and given the following instructions (Preston 1999: 363):

This map shows where many people from southern Michigan believe speech differences are in the USA. We will give you a list of descriptive words which local people have told us could be used to describe the speech of these various regions. Please think about twelve of these regions, and check off how each pair of words applies to the speech there.

For example, imagine that we gave you the pair “ugly” and “beautiful”

ugly _____ _____ _____ _____ _____ beautiful

1 ugly 2 _____ 3 _____ 4 _____ 5 beautiful

...
You would use the scale as follows:

- If you very strongly agree that the speech of a region is “ugly,” select “a.”
- If you strongly agree that the speech of a region is “ugly,” select “b.”
- If you agree that the speech of a region is “ugly,” select “c.”
- If you agree that the speech of a region is “beautiful,” select “d.”
- If you strongly agree that the speech of a region is “beautiful,” select “e.”
- If you very strongly agree that the speech of a region is “beautiful,” select “f.”

The next step in this research is to determine if the number of paired items used in evaluating the regional dialects can be reduced, a procedure normally carried out by means of factor analysis. The results of such an analysis for all areas rated are shown in Table 7.4.

<table>
<thead>
<tr>
<th>Factor group no. 1</th>
<th>Factor group no. 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Smart</td>
<td>Polite</td>
</tr>
<tr>
<td>Educated</td>
<td>Friendly</td>
</tr>
<tr>
<td>Normal</td>
<td>Down-to-earth</td>
</tr>
<tr>
<td>Good English</td>
<td>(Normal)</td>
</tr>
<tr>
<td>No drawl</td>
<td>(Casual)</td>
</tr>
<tr>
<td>No twang</td>
<td>0.57</td>
</tr>
<tr>
<td>Casual [formal]</td>
<td>-0.49</td>
</tr>
<tr>
<td>Fast</td>
<td>0.43</td>
</tr>
<tr>
<td>Down-to-earth [snobbish]</td>
<td>-0.32</td>
</tr>
</tbody>
</table>

Parenthesized factors indicate items which are within the 0.25 to 0.29 range; “−” prefixes indicate negative loadings and should be interpreted as loadings of the opposite value (given in brackets).


You would use the scale as follows:

- If you very strongly agree that the speech of a region is “ugly,” select “a.”
- If you strongly agree that the speech of a region is “ugly,” select “b.”
- If you agree that the speech of a region is “ugly,” select “c.”
- If you agree that the speech of a region is “beautiful,” select “d.”
- If you strongly agree that the speech of a region is “beautiful,” select “e.”
- If you very strongly agree that the speech of a region is “beautiful,” select “f.”

The next step in this research is to determine if the number of paired items used in evaluating the regional dialects can be reduced, a procedure normally carried out by means of factor analysis. The results of such an analysis for all areas rated are shown in Table 7.4.

Two groups emerged from this statistical procedure. The first (“Standard”) is made up of those characteristics associated with education and the formal attributes of the society. Group no. 2 (“Friendly”) contains very different sorts of characteristics (including two negative ones in Group no. 1 but positive here – “Down-to-earth” and “Casual”).

These two groups will not surprise those who have looked at previous studies of language attitudes. As already noted, many researchers have found that the two main dimensions of evaluation for language varieties are most often those of social status ("Educated" above) and group solidarity ("Friendly" above).

A full analysis of these data would go on to consider how each of the regions fared with regard to these two groups, but a sample of two particularly important areas (for these respondents and doubtless others) will provide insight into the mechanisms at work here. The reasons for looking at the respondent ratings of areas 1 and 2 from Figure 7.6 are straightforward. Region 1 is the US “South,” and
Figure 7.6 shows that it was outlined by 94 percent (138) of the 147 respondents who drew hand-drawn maps. For these southeastern Michigan respondents, it is clearly the most important regional speech area in the USA. The second most frequently rated region (by 90 out of 147 respondents or 61 percent) is the local one, called “North” in Figure 7.6, but perhaps more accurately “North Central” or “Great Lakes.” At first, one might be tempted to assert that the local area is always important, but a closer look at Figure 7.4 will show that these southeastern Michigan raters may have something else in mind when they single out their home area; this respondent was not unique among Michigan respondents in identifying Michigan, and only Michigan, as the uniquely “normal” or “correct” speech area in the country.

Table 7.5 shows the means scores for the individual attributes for the North and South. Perhaps the most notable fact is that the rank orders are nearly oppo-

<table>
<thead>
<tr>
<th>Factor</th>
<th>Mean</th>
<th>Attribute</th>
<th>Rank</th>
<th>Factor</th>
<th>Mean</th>
<th>Attribute</th>
</tr>
</thead>
<tbody>
<tr>
<td>−1 &amp; 2</td>
<td>4.66</td>
<td>Casual</td>
<td>1</td>
<td>−1 &amp; 2</td>
<td>3.53</td>
<td>Casual</td>
</tr>
<tr>
<td>2</td>
<td>4.58</td>
<td>Friendly</td>
<td>2</td>
<td>9.5</td>
<td>4.00</td>
<td>Friendly</td>
</tr>
<tr>
<td>2 &amp; −1</td>
<td>4.54</td>
<td>Down-to-earth</td>
<td>3</td>
<td>2 &amp; −1</td>
<td>4.19</td>
<td>Down-to-earth</td>
</tr>
<tr>
<td>2</td>
<td>4.20</td>
<td>Polite</td>
<td>4</td>
<td>9.5</td>
<td>4.00</td>
<td>Polite</td>
</tr>
<tr>
<td>ø</td>
<td>4.09</td>
<td>Not nasal</td>
<td>5</td>
<td>ø</td>
<td>3.94</td>
<td>Not nasal</td>
</tr>
<tr>
<td>1 &amp; 2</td>
<td>‡ 3.22</td>
<td>Normal [abnormal]</td>
<td>6</td>
<td>3</td>
<td>1 &amp; 2</td>
<td>4.94</td>
</tr>
<tr>
<td>1</td>
<td>‡ 3.04</td>
<td>Smart [dumb]</td>
<td>7</td>
<td>4</td>
<td>4.53</td>
<td>Smart</td>
</tr>
<tr>
<td>1</td>
<td>‡ 2.96</td>
<td>No twang [twang]</td>
<td>8</td>
<td>2</td>
<td>5.07</td>
<td>No twang</td>
</tr>
<tr>
<td>1</td>
<td>‡ 2.86</td>
<td>Good English [bad English]</td>
<td>9</td>
<td>5</td>
<td>1</td>
<td>4.41</td>
</tr>
<tr>
<td>1</td>
<td>‡ 2.72</td>
<td>Educated [uneducated]</td>
<td>10</td>
<td>8</td>
<td>1</td>
<td>4.09</td>
</tr>
<tr>
<td>1</td>
<td>‡ 2.42</td>
<td>Fast [slow]</td>
<td>11</td>
<td>7</td>
<td>4.12</td>
<td>Fast</td>
</tr>
<tr>
<td>1</td>
<td>‡ 2.22</td>
<td>No drawl [drawl]</td>
<td>12</td>
<td>1</td>
<td>1</td>
<td>5.11</td>
</tr>
</tbody>
</table>

*Only significant (0.05) break between any two adjacent means scores; ‡ marks values below 3.5 (which may be interpreted as the opposite polarity – shown in brackets here).

sites. “Casual” is lowest-rated for the North but highest for the South. “Drawl” is lowest-rated (meaning “speaks with a drawl”) for the South but highest rated (meaning “speaks without a drawl”) for the North. In factor group terms, the scores for Group no. 2 (and “−1” loadings, where the opposite value was strongly loaded into a factor group) are the lowest-ranked ones for the North; these same characteristics (“Casual,” “Friendly,” “Down-to-earth,” and “Polite”) are the highest-ranked for the South. Similarly, Group no. 1 characteristics are all low-ranked for the South; the same attributes are all highest-ranked for the North.

These scores are not just ordered differently. A series of statistical tests showed that there is a significant difference between the attribute ratings for the North and the South, except for “Nasal” and “Polite.” For those attributes in Group no. 1 (“No Drawl,” “No Twang,” “Fast,” “Educated,” “Good English,” “Smart,” and “Normal”), the means scores are all higher for the North. In other words, these Michigan raters consider themselves superior to the South for every attribute of the “Standard” factor group.

For those attributes in Group no. 2 (or −1), the means scores are higher for the South for “Casual,” “Friendly,” and “Down-to-earth.” There is no significant difference for “Polite” (as noted above), and the only Group no. 2 attribute in which the North leads the South is “Normal,” but it is important to note that “Normal” is to be found in both groups. These data suggest that, at least for these 85 young Michiganders, the “Friendly” attributes (excepting only “Polite”) are more highly associated with southern speech than with speech from the local area.

A few other statistical facts confirm and add to the results reported so far. Note (in Table 7.5) that no attribute rating for the North falls below 3.5 (the median value of the six-point scale), while all of the Group no. 1 (“Standard”) attributes are rated below that score for the South. Perhaps even more dramatically, statistical tests of the means scores for North and South independently show that there is no significant break between any two adjacent means scores for ratings of the attributes for the North. On the other hand, there is such a significant difference for the South between the Group no. 2 (and −1) attributes and the Group no. 1 attributes, as shown by the “*” in Table 7.5. In other words, there is a continuum of relatively positive scores for the North and a sharp break between the two groups for the South.

Since many of the hand-drawn maps of US dialect areas by Michigan respondents label the local area “standard,” “normal” (as in Figure 7.4), “correct,” and “good English,” there is obviously no dissatisfaction with the local variety as a representative of “correct English.” What is the source of the preference for the southern varieties along the “friendly” dimensions? Perhaps a group has a tendency to use up what might be called the “symbolic linguistic capital” of its variety in one way or the other (but not both). Speakers of majority varieties have a tendency to spend the symbolic capital of their variety on a “Standard” dimension. Speakers of minority varieties usually spend their symbolic capital on the “Friendly” dimension.

Perhaps many northerners (here, southeastern Michiganders) have spent all their symbolic linguistic capital on the standardness of local English. As such, it has come to represent the norms of schools, media, and public interaction and
Evaluation has, therefore, become less suitable for interpersonal uses. These young Michiganders, therefore, assign the alternate prestige (“Friendly”) to a variety which they imagine would have more value than theirs for interpersonal and casual interaction, precisely the sorts of dimensions associated with Group no. 2.

Armed with the information that respondents tend to evaluate language varieties along these two dimensions, Preston (1996) took an even more direct approach to eliciting judgments, again with no recourse to actual voice samples. Southeastern Michigan respondents were asked to rate the 50 states (and Washington, DC and New York City) for “correctness.” The results are shown in Figure 7.7.

Again, it is clear that the South fares worst. On a 1–10 scale (where 1 = least and 10 = most correct), Alabama is the only state which reaches a mean score in the 3.00–3.99 range, and the surrounding southern states (Texas, Arkansas, Louisiana, Mississippi, Tennessee, and Georgia) score in the 4.00–4.99 range (as do New York City and New Jersey). In folk evaluations, the distinctiveness of southern speech appears to lie along one particular dimension – it is incorrect English. But then, only Michigan reaches the heady 8.00–8.99 means score range for language “correctness” in the evaluations of these Michiganders.
What parallel can we find in such work as this to the scores for the attributes in Factor Group no. 2 (“Friendly”) already reported? Figure 7.8 shows what Michigan raters have done in a direct assessment of the notion “pleasant,” as was shown above in Figure 7.7 for “correctness.” As Figure 7.8 shows, the South fares very badly again. Alabama is (with New York City) the worst-rated area in the USA, and the surrounding southern states are also at the bottom of this 10-point rating scale. One may note, however, that the ratings for the “pleasantness” of the English of southern states are one degree less harsh than those for “correctness.” Similarly, there is no “outstanding” (8.00–8.99) rating as there was for “correctness,” making Michigan no longer the uniquely best-thought-of area, since it is joined here by Minnesota, Illinois, Colorado, and Washington. In previous work (e.g. Preston 1996), this has been taken to indicate that northern speakers have made symbolic use of their variety as a vehicle for “standardness,” “education,” and widely-accepted or “mainstream” values.

Then what about southerners? If northerners (i.e. Michiganders) are committed to their “correctness” but only half-heartedly to “pleasantness,” will southerners (e.g. Alabamians) show an interestingly different pattern of responses? Unfortunately,
Evaluation

there is not yet a factor analytic study based on the cognitive maps of southerners, but Figure 7.9 and Figure 7.10 show how they have responded to the “correct” and “pleasant” assessments.

Figure 7.9 shows, as one might have suspected, Alabamians are much less invested in language “correctness,” understandably so since they are constantly reminded in popular culture and even personal encounters that their language is lacking in this dimension. Imagine the horror of a Michigander on seeing Figure 7.9. Their own “correct” state scores the fair-to-middling “5,” a score which Alabamians assign to many areas, including their own, showing no break in correctness from Alabama all the way to Michigan.

Figure 7.10 shows that Alabamians are invested in something, just as Michiganders are, but it is clearly “pleasantness,” not “correctness.” This simple contrast shows very straightforwardly the sort of differential investment in local varieties discussed above. In one sense, such studies are “language attitude” studies; in another sense, they form important background understandings for the study of attitudes among different social and regional groups. How can we study more detailed aspects of language attitudes unless we know that a group is “correctness”-investing or “solidarity”-investing? And, how can we measure language attitudes

Figure 7.9 Means of ratings for language “correctness” by Alabama respondents for US English (on a scale of 1–10, where 1 = least and 10 = most correct).
unless we know something of the cognitive arrangements our respondents have made of the terrain we want to explore? Although part of the game belongs to us (the linguistic detail), the real territory (as perhaps in any linguistic work) lies within the cognitive maps (whether geographic or social) of those we study.

4 Toward a General Folk Theory

What of the larger promise? How can we go about fashioning more general folk theories of language? Much of the attitudinal data outlined above, including the mental maps of and attitudinal responses to regional varieties of US English, is dominated by the notions of “correctness” (the more powerful) and “pleasantness.” A great deal of American folk belief and language ideology seems to stem from these attitudes. On the one hand, speakers of “correct” dialects do not believe they speak dialects at all, and educational and even legal repercussions arise from personal and institutional devaluing of “incorrect” varieties (Lippi-Green 1997). On the other hand, speakers of devalued varieties (like prejudiced-against groups in general) derive solidarity from their distinctive behaviors, in this case, linguistic ones.
Although the research tradition is not long, some attitude researchers (like Labov 1966) have collected and analyzed overt folk comment about language. When asked how New Yorkers speak, for example, a southern Indiana respondent replied with a little folk poetry, showing that sensitivity to NYC “r” is not an exclusively ingroup phenomenon (Niedzielski and Preston, 1999: 12):

T’ree little boids, sitting on a coib
Eating doity woims and saying doity woids.

Some comment is more detailed and revealing. Here is how certain Michiganders assured the fieldworker (H) that they, like national newscasters, are speakers of “standard” English (Niedzielski and Preston 1999: 98):

H: Northern English is standard English?
D: Yeah, yeah.
G: That’s right. What you hear around here.
S: Yeah, standard.
D: Because that’s what you hear on the TV. If you listen to the newscast of the national news, they sound like we do; they sound sort of Midwestern, like we do.

And, not surprisingly, Michiganders know where English which is not so standard is spoken (Niedzielski and Preston 1999: 101):

G: Because of TV though I think there’s kind of a standard English that’s evolving.
D: Yeah.
G: And the kind of thing you hear on TV is something that’s broadcast across the country, so most people are aware of that, but there are definite accents in the South.

There are more complex (and rewarding) conversations about social and regional varieties that show not only relatively static folk beliefs and attitudes but also how these beliefs and attitudes are used in argument and persuasion. Investigating these beliefs can reveal deep-seated presuppositions about language, especially in the light of parallels and contrasts to professional opinion (Preston 1994; Niedzielski and Preston 1999). Here is one that supports the claim that correctness dominates US folk perceptions of language and also affords a look at the sort of theory that licenses that domination. H (the fieldworker) has asked D and G (his respondents) if there is any difference in meaning between the words “gift” and “present” (Niedzielski and Preston 1999: 313): 4

D: Oftentimes a gift is something like you you go to a Tupperware party and they’re going to give you a gift, it’s – I think it’s more impersonal, – than a
H: Uh huh.
D: =present.
G: No, there’s no difference.
D: No? There’s real – yeah there’s really no difference.
Although there are several interesting folk linguistic and discourse facts about this short excerpt, the shock for linguists comes in D’s remark that there is no difference in the meaning except in “the way we use it.” What other difference could there be? This remark and many others in “folk linguistic conversations,” points to a folk theory of language in which language is somehow external to human cognitive embedding – it is somewhere “out there.”

Figure 7.11 illustrates one possibility for the essential difference between folk and professional theories. In the linguistic theory, one moves up (and away from) the concrete reality of language as a cognitively embedded attribute of individual speakers to the social constructions of language similarity. These higher-level constructs are socially real but considerably more abstract than the “real” language, embedded in individual speakers.

In the folk theory, just the opposite is true. A Platonic, extra-cognitive reality is the “real” language, such a thing as English or German or Chinese. Speakers who are directly connected to it speak a fully correct form (the only rule-governed variety), although one may deviate from it comfortably not to sound too “prissy.” Go too far, however, and error, dialect, or, quite simply, bad language arises. Since this connection to the rule-governed, exterior “real” language seems a natural
(and even easy) one, many folk find it difficult to understand why nonstandard speakers, for example, persist in their errors, and often infer that they are simply lazy or recalcitrant.

Such a theory presumably lies at the root of most evaluations and discriminations of language varieties. It is the construct against which all language attitude study, at least in American English, must be measured. In short, attitude study, within a linguistic setting, should proceed along both lines of enquiry: what are the linguistic facts of identification and reaction, and what are the underlying constructs which promote and support them? In “correctness,” we have at least part of the answer.

NOTES

1 This does not mean that linguists themselves have no “language attitudes.” First, there will be some viscerally, intellectually uncontrollable responses to language variety from the scientist’s pre-scientific period that persist. Second, what attitudinal responses linguists might have to languages and varieties after they are trained as linguists is an empirical question, one little investigated – but see Preston (1975) for, at least, grammaticality and acceptability judgment differences between linguists and non-linguists.

2 This study is an acoustic corollary to such interesting global studies (in which linguistic detail is not explored) as Williams et al. (1971). They showed, for example, that standard English-speaking children’s voice samples were downgraded (for such traits as “industriousness” and “competence”) if they were played so that the judges thought a minority child (Mexican-American or African-American) was actually speaking.

3 Although the paired opposites were presented to the respondents with “negative” and “positive” sides randomly distributed, the “positive” poles were all moved to the high (i.e. “6”) end of the scale for all the quantitative analyses reported below, but there might be cultural misunderstandings of what is considered to be the “positive” end. They are “Fast,” “Polite,” “Down-to-earth,” “Educated,” “Normal,” “Smart,” “Casual,” “Good English,” “Not nasal,” “Friendly,” “Speaks without a drawl,” and “Speaks without a twang.” I apologize to readers who disagree with my assignments. That should not detract from the contents of the paper.

4 Since H is not a native speaker, such a question seemed “reasonable.”

REFERENCES


Part III  Linguistic Structure
Before we examine the relationship between variation and syntax, we should ask two preliminary questions: (i) Does variation analysis even need a syntactic theory? (ii) If so, which syntactic theory should it be? The answer to the first question might seem obviously in the affirmative, but think about how annoyed we are that practitioners of formal syntax are quite comfortable ignoring variation analysis. I will have more to say on why that is directly, but variationists could perhaps not be blamed for wanting to return the favor. Still, if there is to be a study of variation in syntax, research has to start with some notion of syntactic structure. Besides, it is common for scholars of linguistic variation and change to assert that variation can ultimately not be ignored because it is inherent. But if this assertion is to be more than a rhetorical statement, there should be some system of syntactic analysis from which inherent variability follows.

The second question is about which syntactic theory variation and change scholarship should be related to. There are several varieties of broadly generative theories. Besides the Minimalist Program of Noam Chomsky and its predecessors, Optimality Syntax, Head-driven Phrase Structure Grammar and Lexical-Functional Grammar have drawn the attention of a number of excellent linguists. Then there are versions of cognitive grammar, which emphasize linguistic phenomena as instances of general cognitive processes. Besides these there are numerous functional approaches to syntax, including Systemic Functional Grammar, the dominant research paradigm in Australia. On the face of it, many of these alternatives seem potentially more hospitable to the inclusion of variation than Chomskyan syntax. Nevertheless, I am going to explore what it would take to adapt some version of Minimalist Program (Chomsky 1995, hereafter MP) syntactic theory to include linguistic variation. The reason for this is not only its prominence in linguistic
academia, but the insights into syntactic structure that it has made possible over the past half-century.

I am further limiting my remarks to what Suzanne Romaine (1984) has referred to as “pure syntactic variables,” as opposed to morphosyntactic or morpholexical, morphophonemic, and pure phonological variables. I do not for an instant think that these are strict categories, but rather a continuum. Yet, there seem to be differences in the issues that arise, say, in morphosyntactic variation studies compared with studies at the pure syntax end of the spectrum.¹

1   Sentences and Utterances

At the outset, the task is far more daunting than is generally realized, because MP theory and variation theory are not about the same thing. MP syntax (and perhaps generative theories in general) is about sentences. Variation analysis is about utterances. Sentences and utterances are quite different things. For one thing, sentences, like plane geometric figures, are not observable. Of course, there are a large number of utterances that correspond to sentences, just as there are a lot of things in the world that look like circles, triangles and rectangles. But just as one cannot draw a triangle, one cannot write or speak a sentence, only an utterance approximating one.

One way to get something of a feel for the difference is to consider cases in which utterances by two or more speakers represent a single sentence. The following conversation occurred years ago between one of my sons and his uncle, who was managing a fantasy baseball team:

Jared: A couple of the players on my team are in the Senior League! Paul Mirabella
Ward: And Jim Morrison
Jared: Are in the Senior League!

The sentence is the unexceptional “Paul Mirabella and Jim Morrison are in the Senior League,” but it was uttered in three parts by two different speakers. Furthermore, Jared might not have known what the sentence would be when he uttered the first part of it, until he heard Ward’s contribution. There are three utterances, but only one sentence.

The central question in variation studies is: “What are the conditions that lead to the occurrence of a certain utterance rather than a similar one?” The generative syntactician asks a very different question: “What properties determine what is a possible sentence?” Since the topic of inquiry is sentences, questions about occurrence do not arise; in fact they cannot, because sentences, strictly speaking, do not occur. Generative syntax has a notion of variation, and it has nothing to do with occurrence but rather with alternative constructions that are both possible sentences (or constituents of sentences). Note further that the question is not fundamentally about possible sentences in a certain language (or dialect). In fact, Chomsky has expressed skepticism about whether the notion of a language or dialect has any use in linguistic research of this type, a skepticism which I share.
More generally, the concept “language” itself, however one wants to define it (if at all), is derivative and epiphenomenal, like the class of rhyming pairs. Language, whatever it may be, is a notion more abstract than grammar, more remote from actual mechanisms, consequently raising new problems which may or may not be worth trying to solve (personally, I am skeptical). (Chomsky 1982: 14)

Thus, what we call “English,” “French,” “Spanish,” and so on, even under idealizations to idiolects in homogeneous speech communities, reflect the Norman Conquest, proximity to Germanic areas, a Basque substratum, and other factors that cannot seriously be regarded as properties of the language faculty. Pursuing the obvious reasoning, it is hard to imagine that the properties of the language faculty . . . are instantiated in any observed system. (Chomsky 1995: 11)

Much is made of the difference in data sources between generative syntax and variation analysis: theoretical syntacticians use intuitive judgments and variationists use records of speech (or signing or writing). But this follows from the difference in the two objects of study. If you are investigating patterns of the occurrence of utterances, naturally your data will consist of records of utterances. If your object of study is possible sentences, then you need evidence on what sentences are possible, whether or not they occur. If you believe that occurring utterances are fraught with performance errors, and that speakers have intuitive access to what is possible in language, then you will decline records of utterances and lean on acceptability judgments. Personally, I have long thought relying on intuitions is a mistake. Besides the oft-noted fact that judgments seem to vary disturbingly from speaker to speaker and even vary in degree, it is often not emphasized that there is no such thing as a “grammaticality judgment.” People have no direct access to grammaticality, but they can be induced to give their opinion about whether or not a sentence-candidate is acceptable. One reason a sentence-candidate can be judged acceptable or not is because it does or does not conform to the principles of natural-language grammar. But this is not the only reason. A sentence-candidate may be in perfect conformity to grammar, but be unacceptable because it is too complicated to process, or the judge cannot imagine a context in which it would be useful, or even because it conflicts with an artificial grammar rule the judge has been taught, or for other “irrelevant” reasons. On the one hand, a candidate-sentence that presumably does not conform to natural-language grammar might seem acceptable if the judge can imagine it being used in a communicative context. On the other hand, even granted that performance errors exist, most of the time utterances do seem to correspond to sentences. So, it seems to me that theoretical syntax has two very flawed types of clues as to what a genuine sentence might be and ought to make the best possible use of both.

2 Wh-Movement and Pied Piping

Let us examine an instance of variation in the formal syntax sense and see if it can be adapted to the study of utterance variation. Take Wh-fronting versus Wh-in-situ languages. In Wh-fronting languages like English, a Wh-word like what must move to Spec-CP (unless it is the second Wh-word in the same sentence, or it is
contrastive), giving (1a). In other languages, like Thai, Wh-words do not move, giving (1b).

1a. What are you doing e?  
b. khun kamlaj tham áray khráp?  
you progressive do what courtesy-prt-male

These two co-existing strategies complicate the notion that one can specify straightforwardly what is or is not a sentence. English Wh-words must move (with well-known exceptions) and Thai Wh-words must not move. Yet we certainly want to say that both conform to natural-language grammar. The general answer is that there is a parameter to be set. If you set it one way, you get the English structure; set the other way, you get the Thai structure. But since setting parameters in two ways is part of the set of principles that specify possible sentences, both kinds of sentences are allowed, even though they have contradictory structures.

With this example, we do not have the kind of variation that usually interests variation analysts. The in-situ setting is part of the competence of speakers we conveniently call Thai speakers (even if we do not really believe in languages) and the movement parameter goes with what we agree to call English speakers. If a Thai-English bilingual were to say “You are doing what?” we would attribute that to a stage in the acquisition of English at which the parameter has not yet been properly reset for English. Even if it sounds like a “grammatical error,” the sentence corresponding to this utterance would be a possible natural-language sentence.

It turns out that there is no necessary equivalency between the number of parameter settings and the number of grammars. To understand this, we will have to examine just what a parameter is. (See Baker (2008) for an especially clear discussion, and also Newmeyer (2005), Roberts and Holmberg (2005) and the excellent summary in D’Alessandro (2009).) I will assume a version of the Borer-Chomsky Conjecture (Borer 1984; Chomsky 2001: 2). According to the Borer-Chomsky Conjecture, parametric differences are to be found in the lexicon alone. To see how a difference in the lexicon can account for the differences between Wh-movement and Wh-in-situ languages, consider Figure 8.1, which shows Wh-movement in (2):

2. Who did she speak to?

In MP syntax, one of the two possible operations, Move (the other one is Merge), has applied to place the Wh-element who in the Spec-CP. Move operations are motivated by the need to satisfy, or cross off, a feature. The head of CP is the element C, which has the feature [Wh] that needs to be crossed off in order for the sentence to be grammatical. The feature can be crossed off if another element with a matching feature is located in the Specifier position of the same phrase. This condition is satisfied when who is moved from its original position to Spec-CP. The (null) element C in the English lexicon has a [Wh] feature, so does each
Wh-word. In Thai, C does not have [Wh], so there is no motivation for Move to apply. In this way, the parametric variation between Thai and English is captured by assuming differences in the properties of elements in the two lexicons.

The difference between Thai and English may not be the kind of variation that interests variationists, but there is a special case of Wh-movement in English that would. That is, the cases of prepositional phrases pied piped with the Wh-word. Pied piping may or may not occur. If it does not, (2) results, and if it does we get (3).

3. To whom did she speak?

This is ostensibly quite different from Wh-movement versus Wh-in-situ because speakers of the same “language” and even the same speaker might produce utterances corresponding to both. In an earlier model, a generative grammar could have had a transformational rule that preposed a whole prepositional phrase if its object was a Wh-word, followed by another transformation that preposed Wh-words alone. The first rule would be optional. If the option to apply it was not taken, then the second rule – needed anyway for cases in which Wh-words are the objects of verbs and movement of the Wh-word alone is obligatory – would apply, giving cases like (2). Variation theory could fairly readily modify the first (optional) transformation, associating with it whatever constraints research showed influenced the appearance of utterances like (3) rather than utterances like (2). But generative syntacticians long ago decided that the goal of specifying precisely just what can and cannot be a sentence in natural language is not advanced by allowing transformations of any sort to be written willy-nilly as long
as they produced a desirable result. Eventually those in the Chomsky-led tradition decided that only Merge and Move are necessary, and, given selection from the lexicon, neither was optional. The difference between (2) and (3) is accounted for in exactly the same way as the difference between (1a) and (1b); the setting of a parameter. This means, of course, that one speaker, speaking one “language,” can have a parameter set both ways. This sometimes leads to the assumption that each parameter setting entails a new grammar, putting a plethora of dialects in competition. This would be the – ostensibly implausible – way to account for variation in this kind of theory. If we assume the Borer-Chomsky Conjecture though, we do not need a new dialect for each parameter, just the presence of elements with the appropriate syntactic features in the lexicon. There is no reason why two elements, one with and one without a particular syntactic feature, could not be located in the same lexicon. Remember that “variation” in this tradition means only the possibility of two alternative sentences, not the frequency or the conditions under which the related utterances might occur. The latter is taken to be beyond the scope of a theory about sentences. Even given all this, if optional rules are no longer permitted, we must find another way to account for (2) and (3).

The analysis of optional pied piping of Wh-elements in the MP literature has presented serious problems. Chomsky (1995:264) calls it a “murky area.” Although in this part of his discussion he is not trying to provide a complete analysis for optional pied piping, but rather to use it to illustrate more general issues, what he does say is, at least to my eyes, quite startling. His point is that pied piping is forced when a structure would otherwise crash for other reasons. For example, in cases like (4b) (represented in Figure 8.2), pied piping is required because it is impossible to move who alone because the phonological component would not be able to interpret ’s.

4a. Whose son did she marry?
   b. *Whose did she marry son?

Moving whose is no good because it is not even a syntactic object. Because the most economical movements are not possible, the entire phrase containing who and ’s is the next best solution. This all seems reasonable, but does not apply to

![Figure 8.2](image_url)  
**Figure 8.2** Structure for whose son.
cases like (2). It seems that there is nothing to prevent (2) from being the only possibility and (3) being always ungrammatical. Chomsky here attempts to apply the same reasoning to cases like (3) by appealing to a principle \( P \) that “sometimes bars preposition stranding.” It is worthwhile to quote Chomsky at some length here:

Thus if pied piping is forced by the need to satisfy some principle \( P \), we conclude that violation of \( P \) causes the derivation to crash so that it does not bar less economical derivations without pied piping – for example, the principle \( P \) that sometimes bars preposition stranding. (Chomsky 1995: 264)

This is startling in a number of ways.

- Under minimalist assumptions, it is hard to make out what a “sometimes” principle would be. Would it be a parameter?
- If it is a parameter, it appears to be a simple statement that prepositions cannot be stranded – a parameterized surface filter?
- This type of parameter seems to be inconsistent with the Borer-Chomsky Conjecture.
- \( P \), whether a principle or a parameter, seems to be a powerful one, making derivations like (2) “less economical” even though they otherwise seem on the face of it to be more economical.
- It is clear that \( P \), if a parameter, can be both on and off for the same speaker of English, since it is normal for the same person both to pied pipe and to strand the preposition, depending on style.
- Since pied piping is the most common case cross-linguistically (van Riemsdyk 1978; Abels 2003, cited in Radford and Felser 2011), it strikes me as reasonable to hope pied piping would follow from general principles, not from what seems to be a parameterized surface filter.

I am sure Chomsky did not intend his 1995 discussion to be taken quite as seriously as I am taking it here. Nevertheless, in order to make a proposal about how this case of variability might be related to a syntactic analysis consistent with the MP, I will have to continue for a bit more.

Chomsky’s comments point out that pied piping is required with Wh-forms in English when the Wh-form is in Specifier position. The only cases in which the Wh-form itself can be moved is when it is the object of a preposition (variably, as we are seeing) or of a verb where it is the only possibility. Pied piping of verb phrases is not possible, as (5) shows.

5a. What does she like?
5b. *Like what does she?

This makes it tempting to base an analysis on the assumption that the distinction between Specifier and Complement position is crucial. But I am not going
to pursue an analysis of this type. Rather, I am assuming, for the moment, that
pied piping is required everywhere except when the Wh-form is the object of a verb.
It then becomes exceptional for structures like (2) to exist in English and a few
other languages. Hornstein and Weinberg (1981) propose an analysis that would
fit the requirement that pied piping can only be avoided in verb phrases. Their
proposal is that cases like (2) arise through reanalysis of the preposition and its
associated verb as a complex verb. In (2), reanalysis has produced the complex verb
speak-to. Since it is a verb, its object is allowed to undergo Wh-movement
when it is a Wh-form. If there is no reanalysis, then speak to remains a verb-plus-
preposition construction. If phrase pied piping is required for all lexical categories
except verbs, then, without reanalysis, only (3) is possible.

Hornstein and Weinberg’s rule says that anything following a verb in a verb
phrase can be reanalyzed as a complex verb, provided the original verb c-commands
it. So (6a) can be reanalyzed as either (6b) or (6c).

6a. Kim [VP[talked][PP to Lee][PP about Chris]]
    b. Kim [VP[talked to Lee about Chris]]
    c. Kim [VP[talked to Lee about] Chris]
    d. Kim [VP[talked to Lee about] who]
    e. [CP Who] [IP did Kim talk to Lee about]]

In (6d), who undergoes Wh-movement without pied piping because it is no longer
the object of a preposition but of a (reanalyzed) complex verb.

This approach raises a host of problems. Hornstein and Weinberg (1981: 60, fn9)
admit that the reanalysis rule is “much too powerful.” Perhaps some of the com-
lications would be reduced if we allowed reanalysis to work the other way, that
is, allow prepositions to be reanalyzed with their objects, as in (7).

7a. Kim [VP[talked][PP to [NP Lee]]]
    b. Kim [VP[talked][NP to-Lee]]
    c. Kim [VP[talked][NP to-whom]]
    d. [CP To-whom] [IP did Lee talk]]

This reanalysis makes some intuitive sense when we consider that prepositions
in English serve the same functions that case-marking does in other languages.
The reanalyzed structure could be seen as a noun phrase with a kind of case-like
prefix. In this analysis, we drop the requirement that pied piping is required eve-
rywhere except with verb phrases. Instead, pied piping is in effect prohibited in both
verb phrases and prepositional phrases, perhaps because the Wh-form is in Com-
plement position in both. Apparent pied piping is the result the movement of a
complex noun phrase – not a prepositional phrase.

If I can get away with all this – and I am not sanguine I can for very long – the
variation lies in whether there is reanalysis or not. We have to remember that
Hornstein and Weinberg made their proposal in the early days of Principles and
Parameters syntax, well before the advent of the MP. So it is worth considering if
something like reanalysis is plausible under minimalist assumptions. We would
want to avoid a dynamic process in the lexicon that mimics syntax. Then how would the reanalyzed forms become included in the lexicon? Presumably it would happen just like the learning of any other vocabulary. Unfortunately, the result would be a lexicon with a huge number of complex entries alongside separate entries for their constituents. Perhaps the dynamic nature of reanalysis could be reintroduced if we allow a sort of “on the fly” and possibly temporary introduction to the lexicon of the complex forms. They would be learned and perhaps forgotten momentarily, like so many fleeting idioms.

Variation would come down to whether you select “speak [PP to NP]” or “speak to-NP” from the lexicon. In the former case, if the NP contains a Wh-form, then only the Wh-form moves and the preposition is stranded. If the second alternative is selected, pied piping appears to be the result, but that is an illusion. Style and other social factors might well influence the choice, as they probably do for other lexical choices, like “purplish” versus “fuchsia” or “throw out” versus “dispose of.” An analysis on the order of what I have just presented would be in the spirit of the MP and consistent with the Borer-Chomsky Conjecture. The syntactic theory involved would remain exclusively about sentences, not utterances, but an account for utterance variation would be available, albeit outside the grammar itself. Instead of being part of grammar, social influences would assert their influence on what forms speakers select from (or maybe insert into) the lexicon.

3 Verb Cluster Word Order in Dutch

The pied piping case as I have presented it comes down to a choice between items from semantically substantive categories with no appeal to abstract features. Perhaps more commonly, syntactic variation does involve such abstract features. Barbiers’ excellent study of word-order variation in Dutch verb clusters (2005) provides a test case, and it will have somewhat more appeal to readers of this volume because, although his data are acceptability judgments, they were gathered in a very large survey of non-linguists and analyzed quantitatively. A project called Syntactic Analysis of the Dutch Dialects distributed questionnaires to 368 people in 321 locations, asking which of each logically possible orders of verb clusters were possible. This was followed up with 267 interviews with two or three individuals at each location. These hundreds of judgments were used as a basis for the analysis.

I will largely follow Barbiers’ analysis of Modal-Auxiliary-Verb clusters, with one major adjustment. My conclusion, that the facts can be accounted for by the version of parameterization that conforms to the Borer-Chomsky Conjecture conflicts with his conclusion that parameterization is not involved.

Dutch dialects allow clusters of a modal, an auxiliary and a participle, as in:

dat hij de koek moet hebben gemaakt
that he the cake must have made
“that he must have made the cake”
The following three orders are possible:

(that he the cake) must, have, made
(that he the cake) must, made, have
(that he the cake) made, must, have

Barbiers makes the following assumptions:

- He assumes Kayne’s (1994) antisymmetry principle, entailing that the verb structure is underlingly consistently head first. I will retain this assumption.
- Agreement is what makes movement possible. If there is agreement, movement is possible, and required (contra Barbiers, for whom movement is optional).

Following Barbiers, I assume that modals and auxiliaries may have a semantically uninterpretable Event feature that must be crossed off under agreement with the interpretable Event feature on the participle. Auxiliaries also have an uninterpretable Perfective feature that must be crossed off. Contrary to Barbiers, I assume various dialects may have paired entries for modals and auxiliaries, one with and one without the uninterpretable features. The versions without the feature provide no agreement opportunity for the participle, preventing movement.

Figure 8.3 illustrates the derivation of *moet hebben gemaakt*, the 1-2-3 order. The versions of the modal *moet* and the auxiliary *hebben* do not have the uninterpretable Event or Perfective features. The whole structure is produced by Merge alone, and Move is neither necessary nor possible. The participle *gemaakt* has both features, but they are interpretable (shown in boldface) and do not need to be crossed off. In the derivation of *moet gemaakt hebben*, the 1-3-2 order, the auxiliary *hebben* is the version with the two uninterpretable features, and the modal *moet* has no uninterpretable features. As Figure 8.4 shows, after the *gemaakt* phrase is merged

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**Figure 8.3** Derivation of *moet hebben gemaakt* (1-2-3 order).
with the hebben phrase, gemaakt must move to the Spec-VP2 so that the uninterpretable features on hebben can be crossed off. After the next Merge with VP1, no further movement occurs because moet has no uninterpretable features to be crossed off.

Figure 8.5 illustrates the 3-1-2 order, gemaakt moet hebben. Here, moet is the member of the lexical pair that has an uninterpretable Event feature, and hebben is the auxiliary alternative with no uninterpretable features. After the gemaakt phrase is merged with the hebben phrase, there is no (immediate) movement. However, after the second merger with VP1, gemaakt moves to the Specifier position of the moet phrase so that the Event feature of moet can be crossed off.

These three derivations generate all three major permissible word orders. But another combination of auxiliary and modal is possible – the one in which both moet and hebben have uninterpretable features. In Figure 8.6, we see that movement is obligatory after each merger. First, gemaakt must move to the Spec-VP2 so that the Event and Perfective features of hebben can be crossed off. Then, gemaakt must move again to the Spec-VP1 to allow the Event feature of moet to be crossed off. The result is identical with the result in Figure 8.5, only with two moves instead of one. There is no straightforward way to rule out either derivation, and the result is, in both cases, a permissible order. As we shall see directly, the existence of these two derivations for the 3-1-2 order will actually make it easier to account for the possible Dutch dialects.
Figure 8.5  One-move derivation of *gemaakt moet hebben* (3-1-2 order).

Figure 8.6  Two-move derivation of *gemaakt moet hebben* (3-1-2 order).
Again, I have given more detail than some readers will want. The crucial point is that whichever word order is derived is determined by the selection of one or the other of pairs of modals and auxiliaries, with or without the uninterpretable features that force movement.

But suppose that Barbiers is right that the movements are optional, even in the presence of semantically uninterpretable features. If so, we could dispose of the dual lexical entries for modals and auxiliaries. They would always have the uninterpretable features, but crossing them off would be optional. It is not clear how surviving uninterpretable features would be handled by Logical Form. It is also not clear why there should be movement at all if it is not necessary to deal with uninterpretable semantic features. Still, if these difficulties can be overcome, we would have optional movement, and where there are optional processes, there can be variable processes.

4 Optional Processes and Variable Processes

One way to implement a variable interpretation of optional movement in the Dutch case would be to assign probabilities to the uninterpretable features. We would have [xEvent] and [xPerfective], where x is some value between 0 and 1. We can fairly readily propose that the value of x is estimated appropriately by the “input probability” or “corrected mean” from a Varbrul analysis. Here, I am taking the corrected mean to be an estimate of the likelihood that the given variant will appear, apart from the effect of the other constraints found to influence its frequency.

It is important to emphasize in this connection that, even with the introduction of x, we still do not necessarily have a theory of utterances. If one wished to maintain syntax as a theory of sentences, one could understand x as a statement about the propensity for movement to take place, not about the frequency of the utterances corresponding to the sentence that results if movement does take place. To see how this could be so, imagine a magnet with a certain strength. The magnet has that strength whether or not there are iron-bearing objects within its field that it could attract. One way to get an idea of the magnet’s strength would be to bring iron-bearing objects of varying masses within its field. Observing at what point one of these objects is too massive for the magnet to attract would be an indication of its strength. But it would have the same strength even if no one conducted this experiment. Of course, one could equally well understand that this is a new theory about utterances and x is about frequency. Unfortunately, it is not clear how one would incorporate the external constraints on Dutch verb cluster order into this scheme, or even internal constraints (if there are any).

Of course, Barbiers does not have data on utterance frequency. But I can imagine that if such data were available, there might be interactions involving the value of x, say, when both modals and auxiliaries have [Event] in the same
construction, so that \( x \) in such cases would not be the same as it would be when
\([\text{Event}]\) is associated with only one or the other in the same structure. Such an
interaction, if it exists, would cause the usual problems interactions cause in Varbrul
analyses.

Barbiers found three dialect areas that can be characterized by the pattern of
verb clusters found in them. “Belgian dialects” have only the 1-3-2 and 3-1-2 orders.
“Hollandic dialects” have 1-2-3 and 3-1-2. Then there are “transitional dialects”
in which all three of the above cluster orders are possible. The analysis presented
here allows a simple way to account for the properties of the three dialects.

The “Belgian dialects” require movement of participles like \( \text{gemaakt} \), at least to
theSpecifier position of the auxiliary (\( \text{hebben} \)) phrase. It cannot remain in its base-
generated position. This implies that these dialects have only the version of aux-
iliaries with uninterpretable features. The version with no uninterpretable features
is not available. If it were, the participle could remain \textit{in situ}. Further movement
of the auxiliary to the Specifier position of the modal (\( \text{moet} \)) phrase is possible, but
not inevitable. This implies that the dialects have both versions of modals like
\( \text{moet} \). If the version without the uninterpretable [\( \text{Event} \)] feature is selected, there
is no further movement and the 1-3-2 order results. If the version with the [\( \text{Event} \)]
feature is selected, VP3 undergoes a second movement to the Specifier position of the
modal (\( \text{moet} \)) phrase, giving the 3-1-2 order. This combination of lexical pos-
sibilities allows precisely the two observed orders. However, the 3-1-2 order can
arise only by way of the two-move derivation; the one illustrated in Figure 8.6,
but excluding the one in Figure 8.5.

The Hollandic dialects have verb clusters with either no movement at all (1-2-3), or
only movement of participles like \( \text{gemaakt} \) all the way to Specifier of the
modal (\( \text{moet} \)) phrase (3-1-2). This implies that these dialects have only the version of auxiliaries without uninterpretable features. Since only auxiliaries without the fea-
tures that require movement are available, movement of the participle to the
Specifier position of the auxiliary phrase is impossible, ruling out the 1-3-2 order.
If the modal lacks the uninterpretable [\( \text{Event} \)] feature, there is no movement
and the base-generated order, 1-2-3, results. If the modal has the [\( \text{Event} \)] feature,
then the participle moves all the way to the Specifier position of the modal phrase
and we get 3-1-2. Note that both the Belgian and Hollandic dialects allow 3-2-1,
but by different derivations. On this analysis, the Belgian dialects use only the
two-move derivation and the Hollandic dialects use only the one-move deriva-
tion. It would be difficult to eliminate one of the two derivations, but it turns out
that allowing both allows these two dialects to be distinguished in a straightfor-
ward way.

The “transitional dialects” allow all three orders. This means that their lexicons
contain versions of both modals and auxiliaries with and without uninterpretable
features. Since all these combinations of the two versions are possible, all three
word orders are possible. Furthermore, the transitional dialects would allow both
one-move and two-move derivations of 3-1-2. This analysis places the differences
among Dutch dialects in Modal-Auxiliary-Verb clusters precisely where we expect
dialect differences to be – in differences in lexical properties. Lexical differences
give a natural account despite the fact that the differences involve movement.
5 Sentence-Grammars and Utterance Variation

MP syntax and related formal theories, since they are about sentences and not utterances, may well not be the most hospitable kinds of syntax to relate to the study of syntactic variation. Yet it is instructive to see what the result of such an attempted rapprochement might be. I examined two cases of syntactic variation above the level of morphosyntax, Wh-form pied piping versus preposition stranding in English, and verb cluster word order in Dutch dialects. These two phenomena are somewhat unusual among studies of variation in syntax because they appear to involve a process: movement. Perhaps most studies of syntactic variation are about the choice of one element over another, like the choice among Wh-relative-pronouns, that and zero by Tagliamonte et al. (2005), or the variation between agentive and agentless passive constructions by Weiner and Labov (1983). Although MP syntax is about sentences, there is still a notion of variation, expressed by parameter-setting. Variation in these theories is not about variation in the occurrence of utterances, but the variation in possible sentence types, without regard to the occurrence of the related utterances. Sentence-type variation is handled by parameter setting, but just what a parameter is, is often left very inexplicit. The most coherent version of parameters to my mind is the so-called Borer-Chomsky Conjecture which places parametric variation in the lexicon, and so that is the version I assumed. The result in both the English and Dutch case studies was that variation in movement was ultimately determined by the selection of particular alternatives in the lexicon.

This way of viewing variation has some considerable advantages. First, it reduces the means for accounting for syntactic variation to one. Selection of one form over another is already well established, at least implicitly, for many or most cases of syntactic variability. The same account, it seems, can be given for those cases that involve movement of constituents.

Another major advantage is that it renders moot controversies about multiple grammars in the same speakers’ competence, the need for a ridiculous number of languages or dialects, one for each case of variation, and issues about persevering variation versus language change. Under the present account, all that varies are entries in people’s lexicons, some of them involving abstract syntactic features. There is no need to posit a new “dialect” for each difference in the presence or absence of one of these entries. Of course, people who interact with each other a lot are likely to share lexical entries, but we have always known that. It is equally plausible that people might share some of these lexical alternatives but not others, accounting for the myriad “transitional dialects” we observe. Syntactic change happens when a major speech community eventually drops one salient lexical item in favor of another, entailing the loss of the syntactic structure that that item controls. Whether or not this happens will be determined by social forces, so it is by no means surprising that some syntactic variation leads to change and some does not. If the alternatives remain useful to speakers in the community, variation persists; if one alternative becomes superfluous, the lexical item or items controlling it will be dropped.
The distinction among the three Dutch dialects described by Barbiers can be, as I have pointed out, cleanly accounted for under what I am proposing here. But another aspect of the Dutch dialects is also found: Barbiers’s map of the Dutch-speaking area (2005: 242) shows that speakers of one “dialect” or the other can sometimes be found in areas dominated by another “dialect.” While speakers with the characteristics of one or another of the dialects are concentrated in certain regions, not all the subjects from that region have just these verb cluster order features. Not only are there speakers in a given dialect region who report accepting the features of another dialect, there are many speakers in each dialect area that do not have the exact set of word orders of any of the dialects. None of this is unexpected. Also not unexpected is the fact that the constellation of features defining the Belgian dialect is better concentrated in its region than are the combinations of features for the Hollandic or transitional dialects, since a national border is involved.

One implication – possibly a disappointing one – is this. If you accept my proposal, then there is no such thing as inherent (pure) syntactic variability, at least in the sense that variability follows from the architecture of the grammatical system. The variation that is observed arises from the choices speakers make from the available alternatives in the lexicon, and this is a phenomenon outside the grammatical system itself. In other words, this is a dualist system, with (sentence-) grammar and (variable) usage being two distinctly separate phenomena.13

What I have done here is examine what might happen if one maintains a sentence-grammar and tries to understand utterance variation in those terms. There is no a priori reason why a sentence-grammar should be maintained. It would be perfectly reasonable to develop a syntactic theory of utterances, or modify a cognitive or functional theory more amenable to attending to utterances, so that syntactic variability would be built in. But this would have to be done by linguists committed to the study of variation. We cannot expect linguists who work in formal syntax to do it for us.

We started out asking what inherent variability might mean in syntactic theory. The Dutch dialect case at first glance seemed a promising site for a solution positing that features inducing movement might have variable strength, sometimes initiating movement and sometimes not, in the same structures. But in spite of the fact that Dutch verb-cluster word order variation involves movement, the most natural analysis seems to be based on differences in lexical entries. It is already clear that choice among available forms is one source of variability in what has been analyzed as syntactic variation. Perhaps it will turn out that it is all we need. If so, then syntactic variation is not strictly speaking inherent, but a matter of what forms are available in a given lexicon and what choices speakers make among them at the utterance level.

NOTES

1 For treatments of morphosyntactic variation, see, e.g., Henry (2005), Adger and Smith (2010), and Nevins and Parrott (2010).
2 On the other hand, Labov (1972: 258) has indicated that the analyst must make judgments about what is to be counted before quantitative analysis can even begin, and that this is partly dependent on “theoretical constructs”: “Quantitative research implies that one knows what to count, and this knowledge is reached only through a long period of trial and approximation, and upon the basis of a solid body of theoretical constructs. By the time the analyst knows what to count, the problem is practically solved.”

3 I am assuming a version without the supplements and restrictions in Borer’s original proposal.

4 “Wh words”, like what and áray, have the Wh feature even in Thai, but here they are semantically interpretable and so do not need to be crossed off. This is indicated in the figures in this chapter by boldface type.

5 There are myriad instances of pied piping that do not involve Wh-words. These are all, it seems, challenging for MP syntax.

6 For convenience, I am assuming the old-fashioned structure in which the objects of verbs and prepositions occur in Complement position.

7 I emphasize here that I am not defending particular analyses, but demonstrating what would be required with illustrative analyses that are at least not totally implausible.

8 Ogawa (2001: 199) has suggested a way that reanalysis can be interpreted under minimalist assumptions.

9 I realize I have come very close to the line between sentence and utterance, but I believe I have not crossed it.

10 The details of the analysis would be different under the Hornstein-Weinberg proposal.

11 I would have very much liked to have presented a tidier analysis. But even Chomsky found this “a murky area.”

12 A fourth order, “that he the cake made; have; must;” is also possible, but is largely restricted to Frisian and involves an extra complication and will not be treated here. Interestingly, Barbiers’s solution involves – heaven help us all – pied piping!

13 This to me is a desirable outcome, but will not be, I suspect, for most readers of this volume.

REFERENCES


For students of language change, the most challenging questions begin with why. Why did A change to B (and not C)? Why did the change happen when it did? Why did the change occur in one variety and not in others? Trying to explain language change has occupied generations of linguists and remains among the most important tasks facing the field today. One perspective on this issue focuses on the basic roles in communication and weighs the relative needs of speakers with those of hearers. Such an approach is reflected in Martinet’s view that “Linguistic evolution may be regarded as governed by the permanent conflict between man’s communicative needs and his tendency to reduce to a minimum his mental and physical activity” (1964: 167). This functionalist approach to language change is by no means shared by all, perhaps not even by most, linguists (as discussed in Section 3 below). Nevertheless, it does provide essential groundwork for the subject matter of this chapter, mergers and chain shifts, and offers insight into why these two types of sound change are discussed together.

1 Chain Shifts and Mergers as Alternatives

Chain shifts and mergers can be seen as alternative outcomes of a change situation. Both involve the encroachment of one phoneme into the phonological space of another. If the second phoneme changes so that the distinction between the two is maintained, then the result is a chain shift. If, however, the second phoneme does not change, the distinction is lost, and a merger occurs. From a functionalist perspective, the former case illustrates the power of “communicative needs,” and the latter the power of “articulatory and mental inertia” (Martinet 1964: 169).
Long the domain of historical linguists, chain shifts and mergers have more recently drawn attention from variationist sociolinguists. Particularly influential in this area (as in many others) has been the work of William Labov (for example, Labov et al. 1972; Labov 1994, 2010: Chapter 6). The variationist approach pioneered by Labov rejects the traditional belief that linguistic changes can only be observed after the fact. Indeed, decades of research into language change in progress has shown its value (see the chapters by Cukor-Avila and Bailey and Chambers in this volume). The benefits of this approach are perhaps nowhere more evident than in the re-examination of traditional concepts like chain shifts and mergers.

Some of the most intriguing questions posed by mergers and chain shifts relate to the underlying mechanisms and motivations that drive them, and such issues are the subject of ongoing debate in the field. Here, I remain neutral on these issues and focus on empirical matters by outlining questions raised by the study of mergers and chain shifts and methodologies designed to address those questions. Most of the variationist research on mergers and chain shifts has dealt with vocalic changes, and the discussion here reflects this bias in the examples and in some of the procedures described. Still, the core issues will also apply to the study of consonantal changes, and many of the techniques can be utilized with some modification.

2 The Study of Mergers

Mergers are well attested in the histories of most languages, and they feature prominently in traditional treatments of sound change. Historical linguists document mergers by comparing the phonological structure of a language at two points in time and noting that a distinction in the earlier structure is lost in the later structure – where there were two sounds, now there is one. Actually, the structural possibilities are much more varied. Several patterns of change involving merger are detailed by Hoenigswald (1960). For our purposes, it will suffice to distinguish an “unconditional merger,” in which the phonemic contrast is lost in all phonological environments and a single phoneme remains, from a “conditioned merger,” which appears only in particular contexts. In the latter case, separate phonemes are retained in the inventory, but the contrast between them is neutralized in certain environments. Two changes active in American English today illustrate these types. The distinction between /ɑ/ and /ɔ/ (LOT and THOUGHT) is lost completely in the case of the unconditional “low back merger,” whereas with the conditioned “pre-nasal merger,” the distinction between /ɪ/ and /ɛ/ (KIT and DRESS) is maintained except before nasal consonants (see, for example, Labov, Ash, and Boberg 2006).

In discussions of historical phonology, mergers are often represented abstractly as they are in Hoenigswald’s (1960) mathematical grid diagrams. This approach traces the connections between phonological structures at different stages in a language’s history, but it provides little insight into how the transition between the stages progressed. This shortcoming is no doubt a consequence of the post hoc
perspective on the changes. Evidence of intermediate stages is not always available when dealing with changes that took place centuries or even millennia earlier. The focus in such treatments is squarely on linguistic structure. This perspective can foster a mechanistic view of the process, one in which language change is governed by internal factors and the role of speakers is irrelevant.

Variationist work, by contrast, has focused on active changes in progress and brings an illuminating complement to traditional approaches. It has, for example, identified various patterns in how mergers are implemented. In an early discussion of the problem, Trudgill and Foxcroft (1978) distinguished “merger by approximation” from “merger by transfer.” The former describes the scenario implied by many traditional accounts of the phonetically gradual (Neogrammarian) change whereby two phonemes come together in phonetic space. Merger by transfer, on the other hand, involves recategorization of words from one phonemic class to the other usually as a result of dialect contact. Herold (1990) discusses a third category, “merger by expansion,” which involves neighboring sounds broadening their phonetic ranges to the point of overlap. Unlike the approximation case, the sounds do not converge on a space at or in between one of their original locations, but instead “the phonetic range of the new [merged] phoneme is roughly equivalent to the union of the ranges of the two phonemes that merged” (Labov 1994: 322). This typology of mergers illustrates the new perspective that the variationist study of change in progress has raised (see also Johnson 2010). Research on active mergers has deepened our understanding of how such changes operate, from both the perspective of the linguistic system and the perspective of the speaker.

2.1 What does “merged” mean and how can we tell?

The central question in the study of any putative merger is whether a distinction is lost. From a traditional structuralist perspective, the investigation of this question is fairly straightforward. The answer lies in the phonological system and can be determined by examining the distributions of the relevant sounds using procedures taught in most introductory linguistics classes. When we consider language in its communicative context, however, we find the question is more complicated.

Ordinarily, language users are both speakers and hearers, and it is important to examine both roles in the study of mergers. Losing a distinction between two sounds involves losing the ability to produce it as well as to perceive it. In most cases we expect production and perception to go together. Thus, in a change situation involving merger, conservative speakers will consistently pronounce the sounds differently and will be able to judge which sound is which in the speech of other conservative speakers. Conversely, speakers who have the merger are expected not to show a consistent difference in their pronunciation and not to distinguish the sounds in others’ speech. They may be able to learn to hear a distinction, but it is not one they normally attend to.

Sociolinguists explore the question of whether a speaker produces two phonemes as merged or distinct in much the same way as they do any phonological
variation. Researchers rely on auditory (impressionistic) judgments, acoustic measurements, or both. When implementing acoustic techniques, it is important to cast a wider net than might be needed in examining other variables. In the study of vocalic variation, for example, researchers rely heavily on measurements of the frequency of the first and second formants (F1 and F2), since these offer acoustic correlates of vowel height and frontness, respectively. It would be premature, however, for a researcher to suggest that two vowel phonemes are merged just because they show overlapping distributions in a two-dimensional vowel space defined by F1 and F2. One problem stems from the fact that a plot of vowel space is often drawn by measuring formant frequencies at a single point in each vowel token’s trajectory. Even vowels that we might normally categorize as monophthongs can involve spectral changes that might be relevant to maintaining phonemic distinctions. Studies such as Majors (2005) and Irons (2007) underscore the value of taking acoustic measurements at multiple points across a vowel’s trajectory in the study of vocalic merger. These studies also remind us of the importance of another acoustic parameter to consider: duration. Vowels may overlap completely in vowel space, but a contrast can be sustained through quantitative differences. Phonation type (for example, creaky vs. breathy voice) stands as another candidate parameter to examine. For example, Di Paolo and Faber (1990) discovered that different phonation patterns served to maintain a contrast between vowels that appeared to be merged in vowel space (see discussion below).

To investigate the perception of phonemic distinctions a variety of techniques have been developed (see, for example, Labov 1994: Chapter 12). One of the best known approaches is the minimal pair test, which can be implemented in various ways. The stimuli for this test are pairs of words involving the sounds undergoing merger. They are minimal pairs for speakers who make the distinction and homophones for those who do not. In a face-to-face context, the researcher elicits the pronunciation of the pairs often by having them read aloud. Then the subject is asked whether the words in each pair sound the same or different. In this way, the test measures each subject’s production of the sounds as well as perception of any contrast. The test can also be administered through a written questionnaire in which respondents are asked to reflect on their pronunciations of the minimal pairs and judge their similarity. In this situation, of course, the researcher documents only the respondents’ self-reports of their usage.

While minimal pair tests offers a convenient means of exploring the status of a merger, some caution is advised in using such tests. For example, the elicitation part of the task draws attention to the features under investigation and, therefore, elicits the speakers’ most careful pronunciations. This usage may differ significantly from more casual speech. Still, since we are interested in speakers’ ability to produce a contrast, this result is appropriate; however, it will be important to compare this usage with speech in less guarded contexts. Evidence of style shifting along such lines can provide important information about the sociolinguistic status of a merger (see, for example, Labov 1994: 354–355; Milroy 1992: 74).

Similar caveats pertain to the perception part of the minimal pair test. This task relies on subjects’ metalinguistic judgments. In making these judgments, subjects
may rely on more than a simple auditory perception of their own speech. For example, the potential influence of spelling is an obvious concern when dealing with literate subjects. Homophonous forms that are spelled differently may be judged as sounding different because subjects believe orthography dictates pronunciation.4

To insure that speakers rely only on the speech signal in making their perceptual judgments, a commutation test can be used. The basic procedure involves a subject’s listening to recordings of several randomized tokens of words containing the sounds under investigation and identifying what he or she hears. The test can be run either by playing back the subject’s own speech or by taking the stimuli from different subjects (see, for example, Labov et al. 1972; Di Paolo and Faber 1990). The results of a commutation test indicate the strength of a phonemic contrast based on its “primary function” – to convey meaning (Labov 1994: 356). If the words can be identified with 100 percent accuracy, the distinction is clearly maintained. Results closer to random chance (50 percent) reveal a merger has occurred.

Useful though they may be, minimal pair and commutation tests are fairly blunt instruments that explore perception in artificial contexts. As Labov (1994: 402) notes, many open questions remain about the connection between the ability to label categories in a commutation or minimal pair test and the process of interpreting actual utterances in context. Researchers may also experiment with less direct approaches. For example, Labov (1994: 403–406) discusses the ingenious “coach” test which involves subjects’ listening to a narrative constructed around a minimal pair. Following the narrative, the subjects are questioned about what happened, and their responses indicate how they interpreted the crucial sequence. The test virtually eliminates the intervention of metalinguistic judgments by making the task a more natural one of semantic interpretation.

Recent research incorporating methods from laboratory phonetics highlights how speech perception, including perceptions of mergers, can be complicated by social influences. For example, Hay, Warren, and Drager (2006) used a modified commutation test to explore the “NEAR/SQUARE diphthong merger,” an active change in New Zealand English. Participants in their experiment listened to words spoken by different people, and they were asked to identify what words they heard. The voices were paired with different photographs meant to represent the speakers. By manipulating the pairings, the researchers show how perceptions of the vowels involved in the merger were affected by perceived social differences such as age and class. In this way the study reminds us that social expectations shape perception, even the perception of a phonemic contrast.

2.2 When is a merger not a merger?

Phonemic contrast involves perception as well as production, and normally we expect these to pattern together. Thus, people who maintain a contrast should consistently produce it and perceive it; those who have lost the contrast should do neither. A minimal pair test may find some subjects who identify words as
distinct even though their actual pronunciation belies this claim, but we can often understand such cases as reflecting orthographic or other ideological influences. Much more challenging to our usual understanding are cases with the opposite pattern: people who consistently distinguish sounds in their production but do not perceive a contrast between these sounds. In a minimal pair test, such speakers would identify the two words as “the same” despite a regular difference in their pronunciation. The scenario strikes many linguists as impossible. How can someone consistently produce a difference they do not perceive? This possibility has met with substantial resistance from various corners of the linguistics world, as Labov (1994: Chapter 12) details. Nevertheless, evidence for such cases, called “near” or “apparent” mergers, continues to accumulate.

Consider, for example, the case first reported by Labov et al. (1972: 236–242) of Dan Jones, a teenager from Albuquerque, New Mexico, whom Labov and his colleagues interviewed for their investigation of the reported merger of /ul/ and /ol/.

In a minimal pair test, Jones labeled fool and full as well as pool and pull as the same. A commutation test using Jones’ readings of fool and full and judged by two of his peers showed mixed results: 82.5 percent of the tokens were correctly identified, but the judges struggled with their decisions about which words they were hearing. Acoustic analysis of the tokens from the commutation test was performed to search for some aspect of the speech signal on which the judges might have relied. The analysis revealed a fairly clear separation of the vowels in acoustic space, specifically a slight difference (in the range of 50Hz) in terms of F2 (see Labov 1994: 361). In his production, therefore, Jones maintained a distinction between words that he considered to have the same pronunciation. The phonetic difference is very minor, but crucially it was consistent.

The notion of near merger is intriguing, but it is difficult to assess its significance on the basis of isolated cases. From Labov’s early discussion of near mergers, the phenomenon seems to be almost an idiosyncrasy of a few speakers. Clearly, what is needed are broader community surveys to determine how common near mergers are and what their role in the change process is.

The series of experiments on the (near) merger of /ɛr/ and /ʌr/ (e.g. ferry – furry) in Philadelphia described by Labov (1994: Chapter 14) have helped to address this need. Also important in this regard is the research on the tense/lax vowel distinction in Salt Lake City (Di Paolo 1988; Di Paolo and Faber 1990). Utah (like other areas of the USA) is apparently undergoing a merger of certain tense/lax pairs (/i – ɪ/; /u – o/; /e – e/) in the phonological environment of following /l/. Thus, the fool – full pattern in Albuquerque is part of a larger trend. The Intermountain Language Survey investigated this trend by sampling the speech of dozens of speakers across three generations, and the results suggested that a merger was in progress (Di Paolo 1988). The phonetic details were examined by Di Paolo and Faber (1990), who studied both the formant structure of the vowels (F1 and F2 frequencies) and their phonation patterns; that is, differences of voice quality like breathiness or creakiness. They found that, despite the appearance of a merger, speakers maintain a distinction at the phonetic level. Interestingly, the nature of the distinction between tense and lax vowels varied. Many speakers demonstrated differences in formant frequencies, but the acoustic analysis revealed
that even when the F1/F2 contrast is lost, speakers avoid complete merger through phonation differences.

Demonstrating that a near merger can be widespread in a community lends credence to it and expands its explanatory value. An intriguing application of the near-merger concept sheds light on certain challenging cases in the history of English, such as “the meat/mate problem” in Early Modern English (Labov 1994; Milroy and Harris 1980). The details are beyond the scope of this chapter, but the crux of this problem stems from an apparent reversal of a merger: a vowel phoneme seems to have merged with another only to later separate. This would contradict a widely held belief in the irreversibility of mergers, which Labov’s calls “Garde’s Principle” (1994: 311). The concept of the near merger offers a solution to this problem if we view the original evidence as reflecting the perception of a merger that had not actually occurred in production. In this way, the distinction between the vowel classes was never completely lost, and, thus, there was no merger to be reversed.

The study of near mergers highlights how speech production and perception operate on separate (though usually parallel) tracks. From a diachronic perspective this research also demonstrates that a merger need not affect production and perception at the same time. It is very often the case that perception of a merger outpaces production (Labov, Ash, and Boberg 2006: 62). Thus, as a merger spreads across a region, people may first adopt the belief (usually subconscious) that two sounds should be merged, and only later does their production catch up and actually reflect that belief. Labov offers some support for this idea in his description of the “Bill Peters effect” (1994: 363–364; Labov et al. 1972: 235–236), a phenomenon named for an older, rural man from central Pennsylvania who had a clear distinction between /ɔ/ and /ɑ/ (THOUGHT and LOT) in his spontaneous speech, but who reduced that distinction in the more formal context of a minimal pair test and identified pairs like caught – cot and dawn – Don as sounding the same. Such style shifting can be an important indicator of speakers’ norms, suggesting in this case that Peters “had unconsciously adopted the incoming merged norm as a guide in the minimal pair test, but not for speech” (Labov 1994: 363).

A central lesson to be taken from this discussion is the need for investigators to be attentive to the complexity inherent in the perception of phonological contrasts. The process of perception involves more than a straightforward interpretation of the speech signal; it is subject to influences of various types. While we are just beginning to appreciate the challenges presented by phenomena like the near merger, their discovery clearly testifies to the usefulness of variationist approaches to mergers. Research in this paradigm has expanded our understanding of the issues, even if it has sometimes generated as many questions as it has answered.

3 The Study of Chain Shifting

Variationist approaches have also been fruitfully applied to the study of chain shifting, a process that, like merger, affects two sounds from the same phonological
neighborhood. In a chain shift, one sound changes to resemble its neighbor, but that neighbor also changes so the two remain distinct. It is common to distinguish two main types of chain shifts based on the ordering of the stages involved. Some chains begin as the movement of one sound brings it into the space occupied by another sound, which in turn moves so that the distance between the two is maintained. This case is referred to as a “push” chain. The opposite ordering is found in a “drag” (or “pull”) chain, where the movement of one sound creates an opening, which another sound moves to occupy. With either type, the chain may continue beyond these initial events to involve more sounds.

Chain shifting has generated substantial debate among historical linguists (see Hock 1991). At the center of the controversy is the teleology implied by the chain shift model, particularly the push chain scenario. For Martinet, chain shifts demonstrated the power of “communicative needs” because they were motivated by “the preservation of useful phonemic opposition” (1952: 126). Critics question the importance of avoiding merger by pointing out that mergers are more common than chain shifts. Also troubling for traditional historical linguists is the role that speakers are presumed to play in a functionalist account like Martinet’s. Roger Lass, for example, rejects the suggestion that people “can make comparisons between the present state of their language and some as yet unrealized one, and opt for one or the other” (1978: 266). In his extensive treatment of the subject, Labov (1994) offers something of a compromise position. He accepts Martinet’s basic notions of how chain shifts operate (see, for example, his formulation of “The Chain-Shifting Principle” (1994: 184)) but he rejects Martinet’s teleological account of their motivations, suggesting instead that they result from a purely mechanical process inherent in auditory perception (1994: Chapter 20). Labov (1994) also presents a typology of chain shifts and a series of general principles governing the process based on his analysis of several historical and ongoing shifts.

Questions about mechanisms and motivations are central to any treatment of chain shifting though here they are examined rather indirectly. As above, I focus on empirical matters, framing the discussion around the seemingly basic question: How can an ongoing chain shift be identified and studied? While similar methodological questions have been central to the study of merger, surprisingly this issue has not been much discussed in the literature on chain shifts. I frame my discussion around two main criteria of chain shifting. First is the requirement that distinctions between sounds be preserved, and second is the fact that the sound changes involved in the chain be interrelated.

3.1 What does it mean to preserve distinctions?

Fundamental to the definition of chain shifting is the end result that although the phonetic values associated with the affected phonemes are altered, no phonemic distinctions are lost. This observation has led to the interpretation that chain shifts are driven by an avoidance of merger (see, for example, Martinet 1952). Still, one
need not accept a functionalist view of the process to recognize the basic principle that chain shifts result, by whatever means, in the preservation of contrasts. With this understanding, therefore, we can examine ways of observing this aspect of the process in a series of ongoing changes.

At the level of phonological structure, determining whether contrasts are maintained is a relatively straightforward matter. In the case of a historical change, the researcher might simply compare the phonemic inventory before and after the change and note whether any distinctions were lost. For an active change, techniques developed to examine potential mergers (such as the minimal pair test) could also be applied in the study of chain shift situations. If subjects demonstrate the ability to distinguish the sounds involved in a chain shift, then the “maintenance of contrast” criterion may be interpreted as fulfilled. Still, we may wish to hold chain shifts to a higher standard if we believe that preserving contrasts is integral to the process and not simply an inadvertent consequence of a chain shift. Whether we believe that chain shifting is driven by functional concerns (like Martinet 1952) or by more mechanical processes (Labov 1994), we might expect to glimpse the influence of some principle of contrast maintenance in the details of how a putative chain shift is realized.

In the case of vocalic shifts, an obvious place to begin our search for this kind of evidence is in the positioning of shifting elements in vowel space. Chain shifting involves an adjustment by one vowel to a shift by another. If preserving contrast is a factor in the process, it should be evident in that adjustment. To explore this issue we can consider the example of the Northern Cities Shift (NCS), a series of changes that are commonly interpreted as constituting a chain shift. This NCS is heard across a wide section of the northern USA and is particularly associated with the urban centers of the Great Lakes region (e.g. Chicago, Detroit, Buffalo). The shift involves changes in six vowels and is commonly represented as in Figure 9.1.

When changes are represented as in Figure 9.1, the process of preserving contrast seems obvious. The changes appear joined together in a loop where each vowel moves to maintain its distance from its neighbors. This picture, however, represents an extreme abstraction from phonetic reality. The actual variation associated with these vowels suggests a much more complicated picture. On the basis of my study of the NCS in Michigan (Gordon 2001), I offered a fuller representation of the variation along the lines of Figure 9.2.

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**Figure 9.1** A view of the Northern Cities Shift.
As this diagram reveals, almost all the vowels shift along multiple trajectories. Certainly some of the variants represented here are more common than others, but all have been documented with several speakers (Gordon 2001). When this fuller picture is considered, contrast preservation seems less a guiding force underlying the NCS. The alternative trajectories may still take the vowel out of the space of one of its neighbors, but they often bring it closer to another neighbor. Thus, the shift appears to work to preserve some distinctions while endangering others.

Of course, even though Figure 9.2 presents a more complete view of the variation found with the NCS, it too is an abstraction. A useful complement to such depictions can be sought in acoustic analysis. For the NCS case, the acoustic evidence tends to confirm the messiness of the picture in Figure 9.2. In formant frequency plots ($F_1 \times F_2$) such as those presented by Labov (1994: 179ff) and Labov et al. (2006: 208–211), the ranges associated with the shifting vowels are seen not only to approach each other but in many cases to overlap. To be sure, $F_1$ and $F_2$ measurements offer a very limited picture of the phonetic information available in the speech signal, and for this reason it would be premature to interpret this evidence as indicating that mergers are occurring or even that distinctions are necessarily being compromised. Nevertheless, these data raise questions about (i) the usual interpretation of the NCS as a chain shift, (ii) the premise of this section that preservation of contrasts should be evident in the operation of a chain shift, or (iii) both. Certainly if maintaining contrasts were a principal concern influencing the NCS changes, a pattern like that of Figure 9.2 would seem an unlikely result.

A different approach to the issue of contrast preservation examines patterns of phonological conditioning. If we think about maintenance of contrast in terms of homophony avoidance, we can see the potential significance of context-sensitive effects. In a chain shift, the vowels often shift at differential rates according to phonological context; some environments seem to favor the change while others disfavor it. The distinctions will best be preserved if the shifting elements respond similarly to their contexts since this would allow phonemes to have overlapping allophonic distributions without necessarily losing the contrast between them. On the other hand, conflicting responses to phonological conditioning could endanger vocalic contrasts.
When contrast preservation has been examined in this way for active chain shifts, the results have been mixed. I explored the issue in my work on the NCS and found some cases in which neighboring vowels did show parallel conditioning patterns but just as many in which no such coordination was evident (Gordon 2001: 212–215). Labov et al. (2006: 253) looked for such effects in the case of the Southern Shift, another putative chain shift active in American English. According to their chronology, the Southern Shift was initiated by the monophthongization of /aj/ (PRICE) which spurred a drag-chain lowering of /ej/ (FACE). Their statistical analysis of the conditioning effects of various phonological environments found little evidence that these vowels were shifting in concert allophonically, leading them to conclude, “the unit of chain shifting is not the allophone but the phoneme” (Labov et al. 2006: 254). However, Langstrof’s (2006) findings on the New Zealand Front Vowel Shift suggests that this conclusion may not apply across the board. In New Zealand English the vowels of DRESS and TRAP are raised and the vowel of KIT is centralized. Langstrof tracked these movements using acoustic measurements and found a consistent effect: the most extreme shifting of all three vowels takes place in the context of a preceding alveolar consonant. In this way the study shows that the process of chain shifting may be sensitive to phonological conditioning in ways that reflect a principle of contrast preservation.

3.2 What does it mean for changes to be interrelated?

A second fundamental aspect of the definition of chain shifting holds that the changes involved be interrelated. This criterion stems from the assumption that a causal relationship obtains between individual changes in a chain shift. While scholars may disagree about the nature of the causal connection (e.g. whether it is functionally motivated), some sort of causation is essential to the model.

3.2.1 Temporal connections As an initial approach to the issue of interrelatedness, we consider how changes involved in a chain shift are connected in time. The causal relations that are presumed to hold between changes in a chain shift rely crucially on sequential ordering. Determining that Change A occurred prior to Change B is a necessary (but, of course, not sufficient) component of any claim that A caused B. The methods available for making such determinations in the case of a chain shift are largely the same used in attempts to date any linguistic change. For researchers engaged in the study of changes in progress, these methods include the examination of “real-time” evidence, such as earlier dialectological or orthoepic research, as well as the collection of “apparent-time” evidence in the form of data from speakers representing a broad age-range (see Cukor-Avila and Bailey, this volume).

Establishing the chronological order of changes suspected of constituting a chain shift can be a straightforward matter when the right kinds of data are available. The sequence of changes in the New Zealand Front Vowel Shift, for example, has been determined with a high degree of confidence (Langstrof 2006; Maclagan and Hay 2007). Some scholars believed this shift represented a drag chain begun
by the centralization of KIT which led to the raising of DRESS and eventually of TRAP. A careful review of the evidence, however, reveals that just the opposite took place. The historical picture of New Zealand English is exceptionally rich owing to a corpus that includes recordings of the first generation of English-speaking settlers from the middle of the nineteenth century. These materials, together with apparent-time studies of speakers today, indicate that TRAP and DRESS were already relatively high in the speech of the earliest immigrants and they continued to raise in successive generations of New Zealanders while KIT centralization only appeared in the twentieth century. Thus the evidence points to a push-chain scenario (see further Langstrof 2006).

When we examine shifts for which the historical evidence is sparser, determining the chronological relationships among the shifting elements can present a stiffer challenge. As I have argued more fully elsewhere (Gordon 2001: 24–35), the Northern Cities Shift illustrates these difficulties. The most commonly cited chronology holds that the shift began with the low vowels, specifically with the fronting and raising of /æ/ (TRAP), which spurred a drag chain with /ɑ/ (LOT), which in turn spurred a drag chain of /ɔ/ (THOUGHT) (Labov 1994: 195; Labov, Ash, and Boberg 2006: 190). Shifting of the other vowels (/ɛ/, /ɪ/, and /ʌ/ (DRESS, KIT, STRUT)) appears to be a later development. There is surprisingly little real-time evidence supporting this chronology (or any other). The region in which the NCS is heard today was extensively surveyed by dialectologists as part of the linguistic atlas projects of the mid-twentieth century. However, these records give no indication that any of the changes in the NCS was active on a large scale at that time. When the dialect research hints at similarities to the NCS pronunciations, these tend to be fairly localized to certain areas or even to particular speakers (for details see Boberg 2000; Gordon 2001). The apparent-time evidence does not do much to improve the clarity of the situation. When linguists finally “discovered” the shift in the late 1960s (see, for example, Labov, Yaeger, and Steiner 1972), it had already become well established across a wide geographic range. It seems as if the NCS appeared suddenly and spread rapidly. Thus, it is very difficult to establish the relative ordering of the changes.

3.2.2 Spatial connections Clarifying the temporal relationships among changes is essential to establishing a chronology for a chain shift. Nevertheless, even the strongest chronological evidence cannot by itself prove a causal connection between changes. A convincing case for causation must also look to spatial connections among sound changes.

Among the connections to consider in this regard are those appearing in geographical and social space. The geographical dimension of this issue seems fairly obvious; for changes to constitute a chain shift, they must be found in the same dialect. The reasoning is fairly clear when we are dealing with regional dialects and should also apply in the case of distinct social dialects within a given locale, though the suggestion of “distinct” varieties begs important theoretical questions (see, for example, Eckert 2008). If changes are indeed related through chain shifting, we should expect them to co-occur in the same location and the same language
Investigating Chain Shifts and Mergers

variety. To be more precise, if one change is truly the cause of another, then we expect that wherever we find the first change, we also find the second. We might discover an intermediate stage where the first change is active, but the second has not begun. What we absolutely should not find, however, is evidence of the second change in the absence of the first.

Another approach to the issue of spatial connectedness focuses on the linguistic system. We touched on one way of conceiving of relations within the system of a language in the discussion above of contrast preservation. The technique mentioned earlier of tracking shifts in a two-dimensional vowel space also has clear applications here. In a chain shift, connections between the changes should be clearly represented by one vowel entering the space previously occupied by another. As it happens, the evidence is typically much messier as vowels may shift in directions that seem to be less obvious adjustments to the movements of their neighbors. Still, describing changes in terms of their positioning within vowel space is an essential part of any approach to the question of spatial connectedness.

Relatedness within the linguistic system can also be approached in terms of phonological structure. The argument for a connection between changes might be stronger in the case of changes affecting members of the same subclass of sounds. For example, most of the vowels of the Northern Cities Shift are related as members of the category of short (or lax) vowels. This class is distinguished from that of long (or tense) vowels by phonetic characteristics (such as the absence of accompanying upglides) as well as by distributional characteristics (e.g. never appearing word finally). Such classificatory distinctions are clearly relevant to the question of contrast preservation. The threat to vocalic contrast is greater when a vowel encroaches on another vowel of the same subclass than when it encroaches on a vowel of a different class since it has more in common (phonetically and distributionally) with the former.

3.2.3 Connections within the speech of individuals

Should the connections among shifting elements be evident in an individual speaker’s phonology? This question gets at our fundamental understanding of the process of chain shifting. Do the mechanisms that drive a chain shift operate at the level of the linguistic system or at the level of the individual? Labov (1994: 264–265) makes his views on this question clear:

An individual does not carry out a chain shift, or maximize a distribution. The [chain-shift] rule is a generalization describing the behavior of a speech community over time, and it seeks to unify a number of distinct stages or phenomena that may take as long as three generations.

This view treats chain shifting as a process guided by an invisible hand that shapes the sound system over the long term. Thus, we should not expect to witness chain-shift principles in any individual speaker’s phonology. Still, standard accounts of how chain shifts operate suggest that individuals do have a role to play. Such a role is evident in Martinet’s conception of the process as motivated
by “the basic necessity of securing mutual understanding” (1952: 126). Even the antifunctionalist account proposed by Labov (1994) seems to rely on the interactions of individual speaker/hearers.

One line of reasoning holds that if we interpret one change as causing another, we should expect to find those changes co-occurring in every speaker’s phonology. This is the logical extension of the premise noted above that related changes should co-occur in space. If change A causes change B, then advanced speakers should show evidence of both while conservative speakers might show evidence of neither or only of A. We should not find speakers with B but not with A, if chain shifting operates at the level of the individual. Happily, this is a question that can be investigated empirically.

With vowel shifts, the situation is complicated somewhat by the fact that the changes are matters of degree. For a given change, the difference between conservative and advanced speakers typically involves how frequently and how far the vowel is shifted, not simply whether it is shifted or stays put. Thus, connections between shifting elements might be explored in terms of the relative effects of each change on an individual’s usage. Even if both of our changes A and B are evident, we should expect greater shifting (more frequent and/or more phonetically extreme) of A than of B.

In my study of the Northern Cities Shift in two small towns in Michigan (Gordon 2001) I examined this issue by comparing the relative degrees of shifting of the vowels by every individual. For each of the 32 speakers sampled, several dozen tokens of each of the NCS vowels were auditorily coded along a scale reflecting degrees of shifting. As an overall measure of an individual’s shifting of a vowel, I calculated an index score, which represented a kind of average phonetic value for that phoneme. A sampling of these results is presented in Table 9.1, which lists the index scores for (æ) (TRAP) and (ɑ) (LOT) for all 32 speakers, divided by town (Paw Paw vs. Chelsea) and by generation (adults vs. teens).

According to the chronology discussed above, the NCS began with the fronting and raising of /æ/ which created a drag chain leading to the fronting of /ɑ/. We should, therefore, expect speakers to show higher rates of shifting for (æ) than for (ɑ). The evidence presented in Table 9.1 is mixed. Among the 16 speakers from Paw Paw, all but three had higher (æ) scores than (ɑ) scores. In Chelsea, on the other hand, only seven of the 16 speakers fit the expected pattern. It is also interesting that in some cases we see dramatically different rates of shifting for these two vowels. When /æ/ is shifted more than /ɑ/, we might accept this as consistent with the chain-shift scenario, specifically a drag chain: /æ/ has moved up and out of the way, but /ɑ/ has not been fronted. More problematic are cases such as Jill R. and Julie H. from Chelsea, who show high rates of /ɑ/ shifting but relatively little /æ/ shifting. Fronting /ɑ/ without raising /æ/ reduces the distance between these phonemes in vowel space, a move that seems contrary to our general understanding of chain shifting. The results in Table 9.1 have implications for our understanding of the NCS in particular (see further Gordon 2001: Chapter 6), but with regard to the broader issue at hand, they offer a mixed bag. We find indications of apparent chain-shift connections in the usage of some individuals, but the evidence is not consistent across the sample.
More clearly positive results on this issue are presented by Langstrof (2006). As noted above, Langstrof investigated the New Zealand Front Vowel Shift which involves changes to the TRAP, DRESS, and KIT vowels. Using acoustic data (F1 and F2 measurements), he tested for chain-shifting effects at the level of individual speakers using correlational statistics. This analysis produced several significant results consistent with the view that chain-shift connections do shape an individual’s vowel space. For example, Langstrof found that speakers with high TRAP vowels tend also to have high DRESS vowels (as measured in F1), and those with high DRESS vowels tend to have centralized KIT vowels (as measured in F2). Thus, this research lends support to the suggestion that the mechanisms at work in a chain shift, whatever their nature, operate on individual vowel systems.

### Table 9.1

<table>
<thead>
<tr>
<th></th>
<th>Paw Paw</th>
<th>Chelsea</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(æ)</td>
<td>(a)</td>
</tr>
<tr>
<td>Adults</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Steve R.</td>
<td>0.654</td>
<td>0.172</td>
</tr>
<tr>
<td>Mark C.</td>
<td>0.725</td>
<td>0.300</td>
</tr>
<tr>
<td>Don M.</td>
<td>0.520</td>
<td>0.404</td>
</tr>
<tr>
<td>Rich M.</td>
<td>0.225</td>
<td>0.121</td>
</tr>
<tr>
<td>Rachel G.</td>
<td>1.345</td>
<td>0.263</td>
</tr>
<tr>
<td>Donna L.</td>
<td>1.000</td>
<td>0.818</td>
</tr>
<tr>
<td>Tonya M.</td>
<td>1.408</td>
<td>0.909</td>
</tr>
<tr>
<td>Kerry H.</td>
<td>1.076</td>
<td>0.978</td>
</tr>
<tr>
<td>Teens</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jack A.</td>
<td>0.241</td>
<td>0.182</td>
</tr>
<tr>
<td>Keith M.</td>
<td>0.690</td>
<td>0.367</td>
</tr>
<tr>
<td>Brad H.</td>
<td>0.213</td>
<td><strong>0.216</strong></td>
</tr>
<tr>
<td>Bill M.</td>
<td>0.169</td>
<td><strong>0.229</strong></td>
</tr>
<tr>
<td>Cathy R.</td>
<td>0.061</td>
<td><strong>0.250</strong></td>
</tr>
<tr>
<td>Sally S.</td>
<td>0.228</td>
<td>0.098</td>
</tr>
<tr>
<td>Tasha M.</td>
<td>0.865</td>
<td>0.818</td>
</tr>
<tr>
<td>Margaret M.</td>
<td>1.375</td>
<td>1.175</td>
</tr>
</tbody>
</table>

More clearly positive results on this issue are presented by Langstrof (2006). As noted above, Langstrof investigated the New Zealand Front Vowel Shift which involves changes to the TRAP, DRESS, and KIT vowels. Using acoustic data (F1 and F2 measurements), he tested for chain-shifting effects at the level of individual speakers using correlational statistics. This analysis produced several significant results consistent with the view that chain-shift connections do shape an individual’s vowel space. For example, Langstrof found that speakers with high TRAP vowels tend also to have high DRESS vowels (as measured in F1), and those with high DRESS vowels tend to have centralized KIT vowels (as measured in F2). Thus, this research lends support to the suggestion that the mechanisms at work in a chain shift, whatever their nature, operate on individual vowel systems.

### 4 Shifts and Mergers in Progress

Chain shifts and mergers illustrate the advantages as well as the difficulties of studying language change in progress. Having access to communities in which these sound changes are active gives investigators access to a wealth of evidence that is simply not available in historical changes. This evidence not only illuminates
the facts of a given situation but may also suggest new possibilities for understanding the processes in general (such as “near mergers,” a scenario previously unimagined). As some of the above examples have indicated, however, evidence from in-depth studies of ongoing changes does not always point clearly in a single direction, and researchers must be prepared to wade carefully through the often muddy waters of linguistic variability. Nevertheless, sociolinguistic studies of mergers and chain shifts have shown the benefits of taking such steps in pursuit of improved understanding of the processes that shape these changes and language structure in general.

NOTES

1 I touch on some broader theoretical issues in Gordon (2013).
2 Throughout this discussion I use Wells’s (1982) keywords to refer to English vowel classes.
3 See Milroy and Gordon (2003) for a discussion of the relative merits of these approaches to phonological variation.
4 I have explored the magnitude of this problem by including control items in minimal pair tests I have administered on written questionnaires. As an example, the pair, whole ~ hole, pronounced as homophones in American English (and elsewhere), was nevertheless judged to sound different by around 19 percent of my respondents in a sample of over 3,600 people. Similar findings are reported for paws ~ pause by Johnson (2010: 46).
5 Certainly, allophonic differences operate in this way, but they are typically conditioned by distinct phonetic environments.
6 See, for example, Labov’s figure 6.13 (1994: 187) which presents acoustic data from an adolescent Chicagoan. For this speaker, the range of /ɛ/ is almost completely included within the range of /a/ and both these vowels overlap with /æ/ and /ɪ/.

REFERENCES


Investigating variation in discourse presents different problems from those in examining variation in other aspects of language. The investigation of spoken discourse requires evidence collected in settings where the nature of the speech event is clear and the roles of the participants can be established. The study of discourse also usually requires larger samples of language use. It also requires many methodological decisions that are not crucial in studying other kinds of variation.

1 Ethnographic Studies

Besnier (1995) deals with emerging literacy on the small Polynesian island of Nukilaelae. Other investigators have reported on characteristic styles of speech: Errington (1988) on Javanese; Katriel (1986) on dugri speech in Israel; and Tannen (1984) on New Yorkers' dinner conversation. Moerman (1988) provides a rare example of conversation analysis in a non-Western society, Thailand. Studies such as these provide illustrations of language use that can be used for comparative purposes and also provide models for examining discourse in other societies.

Ochs' (1988) work on language socialization in Samoa and Schieffelin's (1990) on the Kaluli show that caregivers' behavior towards young children may be very different from that of mainstream American parents. Ward (1971) and Heath (1983) had already shown that ethnic and social class factors also affect child-rearing practices in the US. These studies show that the pattern of attentive caregivers using child-directed speech and making every attempt to understand the young child's initial tentative utterances (e.g. Snow and Ferguson 1977) is far from universal.

Ethnographic studies have also been influential in reporting gender differences in discourse. The most influential has been Robin Lakoff's work (1973, 1975) in which she reported on her own intuitions and as a participant observer of the behavior of middle-class women in the US and listed a number of features that she claimed were characteristic of "women's language." Lakoff's work stimulated numerous empirical studies of these features in attempts to support or refute her claims. In particular, there has been strong resistance to her suggestion that women's language "submerges a woman's personal identity, by denying her the means of expressing herself strongly, on the one hand, and encouraging expressions that suggest triviality in subject-matter and uncertainty about it" (Lakoff 1973: 48). Some of these studies will be discussed below.

Keenan Ochs (1974) reports that in a Malagasay community on Madagascar it is the women and not the men who are more outspoken and do not mitigate their speech in expressing criticism or anger. Irvine (1973, 1989) shows that among the rural Wolof in Senegal it is the lower caste griots who use the more elaborated speech style while the higher caste nobles take pride in a kind of linguistic incompetence. Basso (1990) observes that the Western Apache prefer silence to speech in encounters where they are unsure about their interlocutor. Bauman (1983) describes the distinctive ways of speaking among Quakers in seventeenth-century England. Studies such as these are a valuable corrective to universalistic claims about speech behavior that are ethnocentrically based.

Ethnographic studies depend directly on the accuracy of the investigator's observations and interpretations, and these will be affected by the role played by the investigator in an interactive context (Duranti and Goodwin 1992). Until another investigator visits a similar Malagasay or Kaluli community the observations by Keenan Ochs and Schieffelin are likely to remain unchallenged. If such a challenge does arise at some time in the future, then a verdict on who is right will depend largely upon the credibility of the researchers. In the case of Lakoff's claims about women's language in the US, those who were unconvinced usually did not resort simply to counter-claims based on their own experience. Instead,
they attempted to test those claims against empirical evidence collected systematically for the purpose.

2 Sociolinguistic Studies

The most commonly used method for collecting information on language variation has been “the sociolinguistic interview” (Labov 1966, 1981). Wolfson (1976) and Milroy and Milroy (1977) adversely criticize the quality of speech recorded in interviews. I argued against this negative view (Macaulay 1984, 1991) by showing that useful samples of speech could be recorded under these circumstances. Schiffrin (1987) also shows that important discourse features can be studied on the basis of interview data.

Despite the adverse criticism, sociolinguistic interviews can provide valuable evidence of more than phonetic or phonological features, particularly where the same interviewer conducts all the interviews so that there is some consistency in the approach to the interviewee. The role of the interviewer, however, is heavily biased in favor of being a receptive listener rather than an equal partner in the conversation between “intimate strangers” (Gregersen and Petersen 1991: 54). In an ideal sociolinguistic interview the interviewee is essentially a monologist, telling stories, reminiscing, offering opinions, and so on. Clearly, individuals differ in the ways in which they take advantage of this opportunity (Macaulay 1984, 1991, 1999) and one of the important factors will be how the interviewee perceives and reacts to the interviewer (Dubois and Horvath 1993; Eisikovits 1989; Laforest 1993; Macaulay 1991; Schilling-Estes 1998). This is not simply a matter of “audience design” (Bell 1984) since the contribution of both participants is critical and the interviewer’s interest in and rapport with the interviewee can have an important effect on the quality of speech recorded (Macaulay 1990, 1991, 2001b). Such factors will affect any findings on the use of discourse features.

One alternative is to set up group interviews (Eckert 1990; Gregersen and Pedersen 1991; Labov 1972; Labov et al. 1968). In group sessions, however, there is a much greater chance of extraneous noise. Unless each speaker is recorded on a separate track from an individual microphone, there is always a risk that it may be difficult to separate the contribution of each speaker, unless their voices are clearly distinct. It is also difficult to arrange a systematic set of group interviews by speakers chosen on the basis of their membership in a particular social category and the results may be disappointing because of the unnaturalness of the speech event (Gregersen and Pedersen 1991: 56). This makes it difficult to obtain comparable samples of speech.

There is a form of data-collecting that lies between the monologs of individual interviews and the polyphony of group sessions. This is to set up a situation in which two speakers who know each other and who are from the same background talk to each other in unstructured conversations in optimal recording conditions. This avoids the danger of accommodation to the speech of an interviewer (Giles and Powesland 1975), especially from someone outside the community (Douglas-
Cowie 1978) or from a different sector of the community (Rickford and McNair-Knox 1993).

3 Qualitative Sociolinguistic Studies of Discourse

Labov’s earliest work on discourse was his analysis of oral narratives of personal experience (Labov and Waletzky 1967), a work that continues to dominate the field. In a volume celebrating the 30th anniversary of the paper’s publication (Bamberg 1997), most of the more than 50 celebrants testify to the usefulness of Labov and Waletzky’s model but few have much to offer in the way of additions or improvements.

Labov’s (1969) next venture into discourse analysis was to demonstrate that there was no evidence that the characteristics Basil Bernstein (1962, 1971) found in his elaborated code represented “a subtle and sophisticated mode of planning utterances” (Labov 1972: 222) and that we need to discover “how much of middle-class style is a matter of fashion and how much actually helps us express ideas clearly” (Labov 1972: 222).

The first major work showing variation in narrative following Labov is Barbara Johnstone’s (1990) study, based on 68 stories collected by Johnstone’s students in Fort Wayne, Indiana between 1981 and 1985. One of Johnstone’s main findings is that there are gender differences. Similar results were found by Holmes (1997a) in a sample of 30 same-sex conversations recorded as part of the Wellington Corpus of Spoken New Zealand English. Holmes found that the stories reflected the different daily preoccupations of men and women. Neither Johnstone nor Holmes gives numbers to support their claims. Kipers (1987) recorded 470 conversations in the faculty room of a middle school in New Jersey, and she provides figures on the distribution of topics. She found that in female-only conversations the most frequent topics were on house and family (28 percent), social issues (21 percent), work (14 percent), and personal and family finance (12 percent). In male-only conversations the most frequent topics were work (39 percent), recreation (28 percent), and miscellaneous (11 percent). (The latter category consisted of “telling jokes,” “the weather,” “book read by the conversants,” and “quitting smoking.”) In mixed-sex conversations the most frequent conversations were work (25 percent), home and family (22 percent), and social issues (15 percent). This suggests that the men adapted more to the presence of women than the other way around. The greatest differences in individual topics are that in women’s conversations their own children take up 9 percent, and in mixed-sex conversations 5 percent, but less than 1 percent of the men’s. In contrast, spectator sports occupy 13 percent of the men’s conversations, 4 percent of the mixed-sex conversations, but none of the women’s conversations.

Jennifer Coates (1996) gives a detailed account of women’s talk, showing the features used and drawing inferences as to the significance of this kind of speech. McKinlay and McVittie (2011) report on a different kind of exchange among the wives of Scottish fishermen. Coates (2003) provides a study of men’s talk
to complement her work on women’s talk. Davies (2010) shows how joking can be used in Alabama to distinguish “rednecks” from “white trash.” One problem with studies of gender differences is that concentration on the speech of one gender may have the effect of creating or reinforcing stereotypes. Even in a comparative study such as Holmes (1997a) there can be a problem, such as distinguishing between minimal responses as providing positive feedback or as neutral, non-committal responses. As Holmes (1997a: 290) admits, “any interpretation will be subjective,” though there may be prosodic or paralinguistic evidence to support the interpretation. The more the investigator approaches the data with preconceptions about gender differences the greater the risk of biasing the subjective interpretation in one direction or the other, as happened with claims about girls’ precocity in language development (Macaulay 1978). Freed and Greenwood (1996), in a small-scale study of same-sex dyadic conversations, report that it is the specific requirements associated with the talk situation that are responsible for eliciting or suppressing specific discourse forms, not the sex of the speakers.

Even Holmes’ valuable Women, Men and Politeness (1995), in which she presents evidence to show that “in general, women are more polite than men, and that in particular they are more positively polite or linguistically supportive in interaction” (1995: 29), is not immune from this criticism. Holmes is careful to point out that her evidence from middle-class speakers in New Zealand may not generalize elsewhere, but that is not where the problem lies. For example, Holmes defines politeness in the interviews collected for the Wellington Social Dialect Survey as “being prepared to answer questions fully and at length” (1995: 34). This is a very revealing statement. It attributes a motive that may not be justified. There are many possible explanations for a respondent’s reticence, including his or her perception of the task, the topics raised, the attitude of the interviewer, and so on. Even the same interviewer can be either more or less successful in getting a respondent to speak at length (Dubois and Horvath 1993; Laforest 1993; Macaulay 1984, 1991, 1996). To treat all interviews as equivalent speech events is to ignore the complexity of the situation (Macaulay 2001b). Holmes (1995: 36–37) cites two other studies using artificial tasks on which “the women interviewees were more cooperative and polite, contributing substantially more talk overall than the men” (1995: 37). On the other hand, Holmes observes that “when talk offers the possibility of enhancing the speaker’s status, men tend to talk most.” The point is not whether Holmes is correct in her interpretation but rather to note that there is a leap between the data and the interpretation. This caveat is important when evaluating studies of this type and even more so in quantitative studies.

Ochs and Taylor (1995) examined 100 past-time narratives told by seven two-parent families. They define a “story” as “a problem-centered past-time narrative” (1995: 100). They found in what they construe as “a commonplace scenario of narrative activity at family dinners . . . mothers introduce narratives (about themselves and their children) . . . , fathers turn such opportunities into forums for problematizing” and “mothers respond in defense of themselves and their children” (1995: 116).
Blum-Kulka (1997) also looked at dinner table conversation, comparing Jewish-American families, American-Israeli families, and Israeli families. There were gender differences: “only in the Israeli families did we find men actually engaged in talk about shopping and preparing food” (1997: 88). There was a difference interpreted as dominance: “We have seen that in the Jewish American families the fathers raise more topics and talk more than the mothers and that this gender balance is reversed in the two groups of Israeli families” (1997: 90). Findings such as these reinforce the warning given by Cameron et al. (1989: 91): “It needs to be borne in mind generally that ‘women’ do not form a homogeneous group.”

Eggins and Slade (1997) examined three hours of casual conversation collected during coffee breaks in three different workplaces. They found that “the most frequently occurring stretch of talk in the all-male group was teasing or sending up (friendly ridicule)” (1997: 267). They did not gossip and tended to talk about work or sports rather than personal details. In the all-female group there was a predominance of gossip (“broadly defined as talk which involves pejorative judgment of an absent other”; 1997: 278) and storytelling. There was no teasing. They discussed “quite personal details including boyfriends, weddings, marriages, children, and relatives” (1997: 268). In the mixed group of men and women “amusing or surprising stories dominated the conversation” (1997: 268), there was some joke-telling and some teasing. This is a small sample on which to base strong claims but the results are interesting.

Schilling-Estes (2004b) points out the problems that can arise because one speaker’s voice may be “fraught with echoes of the voices of others” (2004b: 54), not only in quoted dialog (Macaulay 1987a) but in other subtle ways: “If people are continually uttering the words of others, then how are variationists to know which utterances they should count as a speaker’s own and which they should not, especially given that bits of prior text are uttered in voices that may have been obviously altered to reflect source voices and sometimes not?” (Schilling-Estes 2004b: 58).

Coates (1999) also looked at changes with age in the discourse of teenage girls, based on transcriptions of conversations among four white middle-class girls in London, recorded by themselves from the age of 12 to 15. Another investigator to make use of resources close at hand is Morgan (1989, 1991, 1999), who recorded members of her own family. Morgan (1991) shows how indirectness is used and evaluated differently by African-American women than would be the case in mainstream society. Morgan’s work, like Coates’s, provides an insider’s perspective on language use that would be hard to match by survey methods. Of course, all such samples are biased. As Mitchell-Kernan comments about her study of the mothers of children in preschool playgroups in Oakland, “a sample which selects on the basis of the presence or absence of preschool children is, of course, age biased” (1972: 13-14). Yet Mitchell-Kernan’s description of “signifying,” “loud talking,” and “marking” remains one of the best accounts of speech behavior among African-American women. In discourse studies, the quality of the interaction
recorded or reported is more important than any objectivity gained by random sampling methods.

In a small study of social class differences in discourse, Horvath (1987) found that the working-class speakers told almost all their stories about themselves or members of their families (94.6 percent), whereas in the middle-class stories over half (53.8 percent) told stories about characters that were distant from the storyteller, either public figures or strangers (Horvath 1987: 219). It would be interesting to know if this is a general social class difference.

4 Quantitative Studies of Discourse Features

One of the first quantitative studies of a single discourse feature was Dubois and Crouch’s 1975 investigation of the use of tag questions during the discussion sessions after papers at a small academic workshop. Contrary to Lakoff’s claim (1973: 53–55) that women are more likely to use question tags than men, they found that all 33 tags in the sessions were produced by men (Dubois and Crouch 1975: 293). Interestingly, these results are sometimes reported as men using more tags than women (Cameron, McAlinden, and O’Leary 1989: 77; Holmes 1995: 84), not only the men used tags.

Holmes (1984, 1995), using a balanced sample of men’s and women’s speech in New Zealand, found that women used more tags (51) than men (36). Cameron et al. (1989), examining examples from 25 speakers recorded as part of the Survey of English Usage (Svartvik and Quirk 1980), found that the men used almost twice as many tag questions (60) as the women (36). As a possible explanation, they suggest that two of the men knew they were being recorded, so perhaps “their speech reflected a concern to elicit as much talk as possible from other participants” (1989: 85) and increased their use of tag questions. This illustrates the problem of using surreptitious recording when one of the participants knows about it. It also is part of a general problem of using “confederates” in interactional research (Duncan and Fiske 1985). More importantly, it illustrates a search for an explanation when the results are not what the investigators expected. This is legitimate but it draws attention to a fundamental problem in quantitative research of discourse features. To what extent can we trust the figures? In many cases, there will be no additional information available to the investigators that might help to explain apparent anomalies, but that does not mean that there may not be factors that skew the results. Claims may need to be tested again and again, by the same or different methods, in similar or different settings, with similar or different samples (Campbell and Fiske 1959). The most reliable way to check on unknown factors is to carry out similar studies on equivalent populations (Macaulay 2003), but few scholars are interested in replicating what they themselves or others have done.

Holmes (1984) introduced a refinement by classifying tag questions as either (i) epistemic modal (focusing on information), (ii) challenging, (iii) facilitative
(encouraging the listener to speak), or (iv) softening. She showed that women were more than twice as likely to use facilitative tags as men. Cameron et al. (1989) found that the proportion of facilitative tags was greater for women than for men but the total number of facilitative tags was greater for men (perhaps for the reason given above). Cameron et al. also report that the task of classifying the tag questions “was not unproblematic” (1989: 83), partly because most utterances are multifunctional. They also did not find intonation an infallible guide to the different categories of tag questions. They found that Holmes’s framework “compelled us to make a somewhat artificial choice” (1989: 84) between categories. This point underlines one of the problems with replicating another investigator’s method. While the method may appear straightforward, attempts to repeat the procedures often raise questions about how to deal with borderline cases.

Erman (1992) reports on an examination of the speech of 22 speakers in the London-Lund corpus (Svartvik and Quirk 1980) for the use of what she calls “pragmatic expressions.” The pragmatic expressions she tabulates are the phrases you know, you see, and I mean. She found that almost twice as many of these expressions occurred in same-sex sessions compared with mixed-sex sessions (1992: 228). She also found that the men used considerably more of them than the women. She also found a functional difference in that “the women tended to use pragmatic expressions between complete propositions to connect consecutive arguments, whereas the men preferred to use them either as attention-drawing devices or to signal repair work” (1992: 217). Erman’s conclusion is “that pragmatic expressions, although sometimes nearly depleted of semantic meaning, serve a number of communicative functions; they facilitate the speaker’s encoding of the message as well as the addressee’s decoding of it and serve interpersonal as well as textual ends” (1992: 233). Erman’s work shows that it is not necessary to attribute specific meanings to discourse features in order to provide an enlightening analysis of their use.

Studies of discourse variation in terms of social class are comparatively rare, perhaps because in language studies in the US social class is almost a taboo subject (despite Labov 1966), though not in Europe. The earliest quantitative study of social class differences in discourse is probably Bernstein (1962, 1971), based on small samples (about 2,000 words) from group discussions on the topic of the abolition of capital punishment. The subjects were males aged 15–18 in groups identified (on the basis of education) as either working class or middle class. Bernstein found that the working-class speakers “used a considerably longer phrase length (3.8 more words to the phrase) and spent much less time pausing (0.06 seconds) than the middle-class group” (1971: 87). He also found that the middle-class speakers used a high proportion of subordination, complex verbal stems, passive voice, uncommon adjectives, adverbs, and conjunctions, and the personal pronoun I. The working-class speakers used more personal pronouns (especially you and they) and what Bernstein called “sympathetic circularity sequences,” question tags and discourse markers, such as you know and I mean (1971: 115–116). Bernstein’s pioneering efforts in discourse analysis have perhaps received less recognition because of the controversy that arose over the implications
of his interpretation of his findings into restricted and elaborated codes (Rosen 1972; Trudgill 1975). Macaulay (2005) contains a detailed comparison of Bernstein’s work with a more rigorous empirical investigation.

In an innovative study, Cheshire (2005) found gender and social class differences in the use of discourse-new markers. She argues that syntactic forms can be involved in distinguishing social groups and in the construction of social identities. She found that “boys were more concerned with the referential meaning of the answers they were constructing” while girls were “more concerned with the affective component of the talk they were constructing” (Cheshire 2005: 497). Cheshire’s approach avoids the problem of subjective evaluation of the social significance of the utterances.

Dines (1980) examined the use of terminal tags (*and things like that, and that, or something, etc., now usually called “general extenders”*) in interviews with 18 middle-class and working-class women in Australia. She found that the working-class women used more than three times as many of these tags (58) as the middle-class women (18). Dines does not give any indication of the length of the interviews and we have to assume that they were roughly equal. It would have been helpful, however, if she had given relative frequencies (see below). Dines had earlier discovered that such tags were stigmatized. In looking at the use of the tags in relation to Bernstein’s sociolinguistic codes, Dines found “that there is nothing to suggest that the occurrence of set-marking tags marks ‘vague and inexplicit speech’” (1980: 30).

Dubois (1992) reports on a careful examination of similar features that she calls “extension particles” in the 1971 Sankoff and Cedergren corpus (Sankoff and Sankoff 1973) and the Montreal corpus of 1984 (Thibault and Vincent 1990). Dubois found that in the overall use of these extension particles “there was no class difference discernible and no difference between the 1971 and 1984 interviews” (1992: 185). Younger speakers used the most particles, and only in the 1971 data did women use more particles than men. There were, however, some significant differences in the kinds of extension particles used, showing the effects of time, gender, and class. Tagliamonte and Denis (2010) report on a study in Toronto showing that *and stuff* is becoming the dominant form there. Cheshire (2007) found a social class difference among adolescents in three different communities. The middle-class speakers preferred *and stuff* and *and things* while the working-class speakers were more likely to use *and that*. Palacios Martinez (2011) reports that the use of general extenders has increased in the speech of London teenagers but they are still not as frequent as in adult speech.

Vincent (1992), also using the 1971 and 1984 Montreal corpora, found gender, schooling, and occupational differences in the use of “exemplification particles” (e.g. *par exemple, comme, genre, disons*, etc.). Like Dubois, she found an age difference: “young speakers clearly produce more exemplifying utterances than do older speakers” (1992: 160) but the decrease was not gradual over time. Instead, for both corpora, there is a break between those under 48 and older speakers. The similarity of these findings with those of Dubois suggests that it might be worth looking to see whether there are qualitative differences between the interviews...
with younger and older respondents that might explain the differences in the frequencies with which these features are used. That this is likely follows from the conclusions of Vincent and Sankoff (1992) summarized below.

Vincent and Sankoff (1992) analyzed 13 interviews from the Sankoff-Cedergren corpus for the frequency of what they call “punctors.” Punctors are assimilated prosodically to the preceding phrase, almost never preceded by a pause, show a high degree of phonological reduction, and have lost their original meaning or function (1992: 205–206). The punctors include la “there,” tu sais, vous savez “you know,” n’est-ce pas “isn’t it so,” and others. The number of punctors used by the 12 speakers ranges from 54 to 551. Vincent and Sankoff also give the frequency of punctors per line of transcription, showing that “the rate of punctor use increases with the length of the interview, that is, with loquacity or fluency of speech” (1992: 212). They also show that “punctors are not frequent in simple answers or when utterances are short, objective, and without much speaker involvement” (1992: 212). They claim that the use of punctors is linked to fluency and expressivity. They conclude that the distribution of punctors “is conditioned by factors such as prosodic rupture [i.e. a break in the melody of the sentence], context, and genre of discourse; only the choice of individual punctors seems to be conditioned by social class” (1992: 214). This short article is a model for future analysis of discourse variation, not least because it does not depend upon interpretative judgments of variants.

The use of quotatives to introduce reported speech or thoughts has been a growth industry for some years now, spearheaded by Sali A. Tagliamonte (Tagliamonte and Hudson 1999). Much this work has focused on be like replacing go as an alternative to say among younger speakers (Tagliamonte and D’Arcy 2004, 2007; Barbieri 2005; Macaulay 2001a) and has demonstrated its spread from the US to Britain and Canada. The Californian form be all flourished for a brief period but seems to have receded (Buchstaller et al. 2010).

Another topic that has received considerable attention is the use of intensifiers (Macaulay 1995, 2002a, 2006; Ito and Tagliamonte 2003; Tagliamonte 2005; Tagliamonte and Roberts 2005; Tagliamonte 2008). There are changes in progress particularly among adolescents and it is clear that intensifiers constitute a very unstable category. As with quotatives, intensifiers can reflect group membership. Barbieri (2008) employed a keyword analysis to compare younger (age 15–25) and older (age 35–60) speakers in a large corpus recorded in various parts of the US and found age differences but did not explore whether there were gender differences.

In my own work, I have been interested in social class differences in Scotland (Macaulay 1977), and latterly in social class differences in discourse (Macaulay 1985, 1987a, 1989, 1991, 1995, 2002a, 2005). In Macaulay (1985) I described the narrative skills of a Scottish coal miner, showing his effectiveness as a storyteller, but also providing quantitative information on the use of discourse markers and terminal tags. In Macaulay (1991) this kind of analysis was extended to a sample of 12 speakers with equal numbers of middle-class and lower-class speakers in the town of Ayr in southwest Scotland. I was able to show that the lower-class
speakers used more discourse markers and highlighting devices, while the middle-
class speakers used more derivative adverbs in -ly. This latter point was developed
in Macaulay (1995), showing that the middle-class speakers also used more evalu-
ative adjectives.

A major innovative feature in the Ayr study was that the interviews were
transcribed in their entirety and this provided, for each speaker, evidence of the
frequency of the use of a particular item. This is extremely important because
speech samples are rarely identical in length. I employed the same procedure
(Macaulay 2005) in analyzing a set of same-sex conversations recorded in connec-
tion with a study of language change in Glasgow (Stuart-Smith 1999). Conversa-
tions of approximately half an hour between friends were recorded without the
investigator being present. There were two age groups (14-year-olds and adults
over 40), two social class groups (middle class and working class), and equal
numbers of males and females. The sessions were transcribed in their entirety and
analyzed for age, social class, and gender differences. The results show that the
adults talk more than the adolescents, and females talk more than males. The females
tell more narratives than the males and use more quoted dialog. The working-class
women use the most quoted dialog. One of the more notable global differences in
topic is that the females talk more about people than the males. In particular, the girls
talk about other girls, and the women talk about other women. This was the
case both quantitatively and qualitatively. As was the case in the Ayr interviews
(Macaulay 1991, 1995), the middle-class speakers, both adults and adolescents, use
more derivative adverbs in -ly. The adults use very, quite, maybe and even much more
frequently than the adolescents. They also use the definite and indefinite articles
more frequently.

Females show a much greater use of pronouns, particularly I and she. The
women, both middle-class and working-class, use you know (8.34 per thousand
words) almost twice as frequently as the men (4.48); the adolescents (0.86) use you
know much less frequently than the adults (6.84). There are other features, such as
the use of well, that show that the adolescents do not make the same use of dis-
course features as the adults. A later study of working-class Glasgow adolescents
recorded by Janet Stuart-Smith (Macaulay 2009: 83–106) showed age and gender
differences in the use of questions, pronouns, intensifiers, and quotatives.

The sociolinguistic investigation of discourse variation has progressed substantially
in recent years. The availability of large computerized corpora makes possible
certain kinds of analysis that would have been difficult or even impossible a few
years ago. Unfortunately, the lack of contextual information constrains the kind
of questions that can be investigated and thus limits the value of such an approach
for the study of discourse variation. As a remedy for this, many variationists have
collected systematic samples of a range of speakers in controlled settings, and it
is to be hoped that other investigators will follow their example. In all sociolin-
guistic work the context in which speech samples are collected is important
(Macaulay 2009) but in examining discourse variation the context is crucial (van
NOTE

1 The Sankoff-Cedergren corpus consists of 60 interviews with French speakers in Montreal in 1971; in 1984 these speakers were interviewed again, with the addition of 12 younger speakers.

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Part IV  Language and Time
11 Real Time and Apparent Time

PATRICIA CUKOR-AVILA AND GUY BAILEY

The “synchronic approach” to the study of language change, the study of change in progress, forms one of the cornerstones of research in language variation and change. This approach has had an enormous impact both on our knowledge of the mechanisms of change and on our understanding of its motivations. In fact, Chambers believes that the study of change in progress might be “the most striking single accomplishment of contemporary linguistics” (2009: 160).

1 Apparent-time Evidence in Martha’s Vineyard

Until the mid-1960s, most linguists concurred with Hockett’s assertion (1958: 444–445) that the actual process of language change is unobservable – it can only be detected through its results. Historical linguists, the primary students of language change, simply relied upon the examination of data from different points in history to infer that linguistic changes had occurred and to describe the outcomes of those changes. The historical data provided little insight into how the changes had taken place or into what might have motivated them (except, of course, in the case of language contact). In work on Martha’s Vineyard and in New York City in the 1960s, however, William Labov (1963, 1966) developed a set of methodological innovations that allowed linguists to track the progress of linguistic changes as they were taking place and thus established the basis for a synchronic approach to language change. These innovations included methods for quantifying the linguistic variation that is a prerequisite for language change; for examining how variation is embedded in the social and linguistic structures that motivate and constrain change; and for exploring the effect of contextual
styles that are a response to the social evaluation of linguistic variants. Perhaps
the most important innovation, though, was the apparent-time construct, a sur-
rogate for the real-time examination of data at different points in history.¹

Labov hypothesized that when social and stylistic factors were held constant,
linguistic differences among different generations of a population (apparent-time
differences) would mirror actual diachronic developments in the language (real-
time linguistic changes). For instance, Labov argued that the increase in the use
of centralized onsets of (ay) and (aw) in apparent time, as shown in Figure 11.1,
mirrored a diachronic increase in the use of these features on Martha’s Vineyard.
The youngest group does not have the largest index of centralization because, as
Labov (1963) points out, the expansion of centralization was a reaction to threats
to island identity, such as the need to leave the island to make a living, and these
pressures had not yet affected the youngest islanders. Labov’s comparison of
these apparent-time distributions with real-time evidence collected for the Lin-
guistic Atlas of New England some 30 years earlier corroborated his arguments.

While Labov’s work on Martha’s Vineyard and in New York City did not
provide absolute confirmation of the validity of the apparent-time construct, it did
demonstrate the value of the construct as a surrogate for real time in exploring
mechanisms of language change. Examining the intersection of apparent-time
differences with social and stylistic differences enabled Labov to show how inno-
vations enter the speech of a restricted social group, spread to members of other
sub-groups, and either expand to the limits of the speech community or give way
to retrograde changes. Labov showed, for example, that on Martha’s Vineyard,
the centralization of (ay) and (aw) began in the speech of Yankee fisherman (those
of English descent) whose way of life was threatened by pressures to leave the
island; it then spread to other groups as a marker of island identity. As Figure 11.2

![Figure 11.1 Centralization Index by age group for (aw) and (ay) on Martha’s Vineyard.](source: Labov (1963).)
shows, the use of centralized onsets correlated strongly with a positive orientation toward the island – so strongly that Labov could conclude that the social meaning of this feature was “traditional Vineyarder.”

2 The Use of Apparent-time Evidence

Largely as a result of Labov’s success in using apparent time to explore the mechanism of language change, over the last 30 years linguists have used the apparent-time construct in a wide range of situations to make inferences about ongoing changes. Nevertheless, the apparent-time data are only a surrogate for real-time evidence, and apparent-time data cannot uncritically be assumed to represent diachronic linguistic developments. At least three situations pose potential problems for the apparent-time construct. These include the generality of apparent time (Section 2.1), the stability of individual vernaculars (Section 2.2), and the occurrence of age-graded features (Section 2.3).

2.1 The generality of apparent time

While the apparent-time construct has been useful for exploring a wide range of features, how generally apparent-time differences represent ongoing linguistic changes is not entirely clear. To begin assessing the generality of the apparent-time construct, Bailey et al. (1991) compared apparent-time distributions of 14 features of Texas speech in a Phonological Survey of Texas (PST) and a Grammatical Investigation of Texas Speech (GRITS), both of which were completed in 1989, with
real-time evidence for those features from the Linguistic Atlas of the Gulf States (LAGS), data for which were gathered some 15–20 years earlier. These features, which are listed in Table 11.1, include both phonological and grammatical items. While many of the phonological features occur in other varieties of English, the two grammatical features are largely restricted to Southern American English and African American Vernacular English (AAVE). They are the grammaticalized quasimodal *fixin to* (meaning roughly “about to”), as in “I’d be happy to help you but I’m *fixin to* leave,” and the multiple modal combination *might could* (meaning roughly “might be able”), as in “I *might could* come early if you need me to.”

Of the 14 features, 11 show a straightforward relationship between apparent and real time. Figure 11.3 shows the percentages of survey respondents by age cohort who use the innovative form of seven phonological features and one innovative grammatical feature. This figure shows a progressively increasing use of innovative forms across the four age groups for all eight variables, with the oldest cohort using the smallest percentage of each innovative form and the youngest using the largest percentage. Middle generations use percentages that are somewhere in between. Since age is statistically significant at the .05 level for each variable (determined by chi square tests) and since other social variables are controlled by the random sampling procedure, which ensures that factors such as social class and ethnicity will be in proportion to their distribution in the larger population, the apparent-time distributions in Figure 11.3 suggest that all eight
variables represent diachronic changes that were in progress at the time when the survey was conducted.

The apparent-time distributions in Figure 11.4, on the other hand, show a progressively decreasing use of recessive features, with a pattern that forms a mirror image of Figure 11.3. Again, since age is statistically significant, the distributions suggest linguistic change in progress.

Real-time evidence from LAGS confirms the apparent-time distributions in every case, as Figure 11.5 shows. For all of the features in Figure 11.3, the percentage of PST or GRITS respondents who use the innovative form substantially
exceeds the percentage of LAGS informants who use it, indicating that these features represent innovations that are accelerating diachronically. For the features in Figure 11.4, the percentage of LAGS informants who use the features either exceeds or equals the percentage of PST and GRITS informants who use the forms, confirming that the recessive features are gradually disappearing.

The apparent-time distributions of one of the remaining three features (the use of fronted onsets in *thousand*) suggest that no change is taking place – that the situation is one of “stable variation.” The difference in the use of the fronted onsets between the youngest and oldest age groups is less than 5 percent, and those differences are not statistically significant. The variation that does exist in the use of fronted onsets of /au/ is primarily a consequence of ethnic differences. Anglos usually have fronted onsets as the result of a linguistic change that began in the last half of the nineteenth century and went to completion by World War II. African Americans and Hispanics, for the most part, did not participate in the process and generally have central onsets (see Bailey 1997). The real-time evidence from LAGS confirms the scenario of stable, ethnically conditioned variation: 77 percent of the LAGS informants have fronted onsets in *thousand*, while 76 percent of the respondents in PST do (see Figure 11.5). Likewise, in LAGS Anglos are more likely to have fronted onsets, while African Americans and Hispanics are more likely to have centralized ones.

The distributions of the two remaining features (monophthongal /ai/ in *night* and the use of the double modal *might could*) are more complex. At first glance, their apparent-time distributions suggest situations of stable variation (as in Figure 11.6). A comparison with the real-time evidence in LAGS (see Figure 11.5)
suggests diachronic change, however, with the use of these features increasing over time. In neither case does the real-time evidence actually contradict the apparent-time distributions. Rather, the large discrepancy in the occurrence of *might could* in the two surveys reflects methodological differences between them. LAGS generally relied on indirect elicitation to obtain tokens of *might could*, while GRITS relied on informants’ self-reports on their use of the form. As Bailey *et al.* (1997b), Bailey and Tillery (1999), and Tillery (2000) point out, the percentage of respondents who acknowledged using *might could* was far greater than the percentage who used the form in response to indirect elicitation, in large part because of the difficulty of framing questions that would actually elicit *might could*.

The differences in how the data were elicited for LAGS and GRITS account for most of the variation in the results of the two surveys, and the methodological differences between the surveys in this instance make assessing the status of *might could* impossible.

The discrepancy in the use of monophthongal /ai/ in *night* also reflects methodological differences, but in this case the differences are resolvable since the discrepancy between the real- and apparent-time data reflects differences in the sample populations. The LAGS sample includes only native Texans, while PST and GRITS comprise a random sample of Texas residents that includes both natives and non-natives. An analysis of just the native Texans in the PST sample (see Figure 11.7) helps clarify the differences between PST and LAGS in regard to /ai/ in *night*.

Figure 11.7 shows that when only native Texans are considered in PST, the data do in fact suggest a change in progress (i.e. monophthongal /ai/ is expanding in words like *night*); the apparent-time data, then, show exactly what the real-time data lead us to expect.

The comparison of the apparent-time data from PST and GRITS with real-time evidence from LAGS clearly provides strong support for the generality of the apparent-time construct, at least for features of phonology and morphosyntax. In
13 of the 14 cases, the apparent-time distributions were confirmed by the real-time evidence, and in the remaining case methodological differences between the two surveys made the relationship between real and apparent time impossible to assess. In no case did the real-time evidence contradict the apparent-time evidence. It is important to note, however, that these apparent-time data come from two random samples of 1,000 Texans each. The generality of the apparent-time construct for the data used here is in large part a function of the size and the representativeness of the samples. Smaller, less representative samples can be expected to produce less general and less valid results.

While much of the early work using apparent time was applied to phonological or morphosyntactic features, more recently work has applied it to discourse-pragmatic features as well. Apparent-time research on change in the quotative system of Canadian English (Tagliamonte and D’Arcy 2007) suggests that be like replaced say in Canadian English around the early 1980s, when the 30-year-olds in their study were teenagers (see also Tagliamonte and D’Arcy 2004; Tagliamonte and Hudson 1999). Apparent-time data on quotative use in rural AAVE (Cukor-Avila 2002, 2012) show a similar pattern of change over time (Figure 11.8), which has been corroborated with real-time data over a 20-year period from two female speakers (Figure 11.9 and Figure 11.10). Figure 11.8 shows that the apparent-time construct can be applied to discourse-pragmatic features, and Figure 11.9 and Figure 11.10 show that real-time data corroborates the apparent-time inferences in the speech of two individual subjects. In the next section, we will look at some studies that test apparent-time inferences for younger speakers as social circumstances alter.
Figure 11.8  Distribution of quotatives over six cohorts of Springville speakers (totals include say, be like, go, zero, and other).
Source: Cukor-Avila (2012).

Figure 11.9  be like and say as a percentage of all quotative forms over time for Sheila b. 1979.
2.2 The stability of individual vernaculars

Just as the apparent-time construct relies on the assumption of generality, it also relies on the assumption that in most cases individual vernaculars remain relatively stable throughout the course of an adult lifetime. While many variationists believe that the vernaculars people learn in adolescence remain the basic vernaculars they use throughout their lives, recent data suggest that the situation is somewhat more complex than this (cf. Sankoff 2004; Wagner and Sankoff 2011). Data bearing on linguistic changes throughout the lifespan can only be acquired through re-interviews with the same informants over an extended period of time – through panel studies in real time.

Using both panel and trend studies to gather longitudinal data on the replacement of apical [r] with “posterior” or dorsal [R] in Montreal French, a linguistic change in progress, Sankoff and Blondeau (2007) showed that while most individual vernaculars were stable after the critical period for first language acquisition, a sizable minority of young adults in their corpus shifted in the direction of the change in progress over a 15-year period. Although the degree of change in individual vernaculars was a pale reflection of the degree of change that took place in the community as a whole, these “late adopters” apparently were instrumental in accelerating the change in progress (cf. Boberg 2004). Sankoff and Blondeau (2007) demonstrate clearly that non-cyclical change can take place across the lifespan and is not necessarily incompatible with an interpretation of change in progress.

Wagner and Sankoff (2011) document still another complexity. Their panel study of the rise of periphrastic future at the expense of inflected future in Québécois French suggests age-grading in the opposite direction. As their speakers aged,
two-thirds of them increased their use of the conservative (inflected) form. While their increased use of the conservative form did not halt or reverse the linguistic change, it did slow the pace to some extent. Wagner and Sankoff (2011: 275) note, however, that “rather than vitiating an apparent time interpretation, these results indicate that the rate of change may be slightly overestimated if age-grading acts in a retrograde direction.”

Labov indicates that the extant studies of the stability of phonological systems suggest that while “variables operating at a high level of social awareness are modified throughout a speaker’s lifetime, with consistent age-grading throughout the community . . . , the phonological categories that underlie the surface variation remain stable” (1994: 111–112). Labov further notes that the relatively small number of vowel systems that have been investigated instrumentally show “no overall change that would justify a reinterpretation of the apparent-time data as a result of age grading. The most significant shifts are in the reverse direction: they show older speakers influenced slightly by the changes taking place around them” (1994: 105).

Cukor-Avila (2000) has examined the stability of individual vernaculars in the rural Texas community of Springville, population 180. (Note that the name “Springville” is a pseudonym, as are all other names used in the project.) To test the assumption that individual vernaculars remain stable over the course of a lifetime, she examined the progress of four well-known features of AAVE in the speech of four residents of Springville over a period of nearly a decade. These features include:

(1) zero third person singular, as in
   a. let’s see how it look down there
   b. she work for the V. A. hospital.

(2) zero copula, as in
   a. she quiet now
   b. somebody puttin’ the law on them folks.

(3) habitual be+v+ing, as in
   a. we be watchin’ a really cute guy come in
   b. I know I be hearin’ that bus during 8th period on Mondays an’ Tuesdays.

(4) had+past used as a simple past, as in
   a. when I was workin’ at Billups me an’ the manager had became good friends
   b. an’ one day I had came over to the store and’ tha’s when B. had wanted to go to work.

The four Springville residents – Wallace (b. 1913), Vanessa (b. 1961), Sheila (b. 1979), and Brandy (b. 1982) – were first interviewed in 1988 and were frequently reinterviewed for a decade thereafter (see Cukor-Avila 1995; Cukor-Avila and Bailey 1995). Their different social histories provide a range of possible scenarios regarding the stability of individual vernaculars:
Wallace was 75 years old and retired by the time of the first interviews in 1988, and while he was formerly quite active selling produce from his garden, his movements and social contacts became increasingly restricted as he got older.

At one time Vanessa, who was 27 when she was first interviewed in 1988, spent most of her time in Springville, where she was the clerk at the only store in town, but her social contacts expanded significantly after she took a job as a custodian at a nearby university in the early 1990s and began taking classes to help her qualify for her Graduate Equivalency Degree.

Sheila spent most of her early life entirely in Springville, but when she was 12 she began spending summers in Wilson, a nearby city of 100,000. At that time she developed a new set of friends and an orientation away from Springville and toward the city. While in the ninth grade, she dropped out of school and moved to Wilson, although she still spends a great deal of time in Springville. Sheila was nine when she was first interviewed in 1988.

Like Sheila, Brandy began spending most of her summers in Wilson after she turned 12, but unlike Sheila, she remained in school and graduated in May 2000. Brandy was six at the time of her first interview in 1988.

Figure 11.11, Figure 11.12, Figure 11.13, and Figure 11.14 summarize the real-time data on the four AAVE features (copula absence, verbal -s absence, habitual be+ing, and had+past used as a simple past) for the four Springville residents. As Figure 11.11 and Figure 11.12 show, the data for Wallace and Vanessa provide strong confirmation of the stability of individual vernaculars. Like most African Americans born before World War I, Wallace does not use had+past as a simple past and rarely uses habitual be (it comprises 0.04 percent of the tokens of the present tense of be during 1988–1989 and does not occur at all during 1994–1995).

![Figure 11.11](image.png)

Figure 11.11  Real-time distribution of three AAVE features in the speech of an African-American male, b. 1913.

Figure 11.12  Real-time distribution of three AAVE features in the speech of an African-American female, b. 1961.

Figure 11.13  Real-time distributions of four AAVE features in the speech of an African-American female, b. 1979.

Figure 11.14  Real-time distributions of four AAVE features in the speech of an African-American female, b. 1982.
He does, however, frequently have zero copula and zero third person singular. His use of these features as shown in Figure 11.11 changed only slightly between 1988–1989 and 1994–1995, and the differences are not significant (as determined by a chi square test). While Vanessa does use both the innovative habitual be and the innovative had+past, her use of all four AAVE features remains virtually unchanged between 1988 and 1999 as Figure 11.12 shows; none of the differences are significant. The stability of Wallace’s vernacular is not surprising given his restricted social contacts and movement, but given the changes in Vanessa’s personal history, the stability of her vernacular over a 10-year period seems remarkable.

By contrast, the data on the vernaculars of the two younger residents raise a number of questions about the stability of vernaculars of adolescents and teenagers. As Figure 11.13 shows, Sheila’s vernacular changed substantially between 1988 and 1998. When she was first interviewed, her vernacular was similar to that of older rural African Americans. She used habitual be rarely (it comprised only 3.1 percent of her present tense of be tokens in 1988–1989) and had no tokens of had+past as a simple past. After she began spending her summers in Wilson in 1990, her use of habitual be more than doubled in the 1991–1992 interviews, and her use of had+past expanded to include nearly three-quarters of all her (morphologically) past perfect tokens (both developments are significant at the .05 level by chi square). Her use of zero copula and zero third singular also increased and continued to do so through 1998. The use of the former increased by more than 10 percent between 1988 and 1998, while the latter increased by some 14 percent during that time (both statistically significant). It seems clear that after 1990 Sheila’s vernacular underwent a substantial shift away from the rural norms she grew up with and toward the urban norms she began to encounter in Wilson (cf. Bailey and Maynor 1989). This shift continued throughout Sheila’s teenage years and only now as she is reaching adulthood does her vernacular seem to be stabilizing.

The data from the interviews with Brandy provide additional evidence that vernaculars may continue to change throughout the late teenage years (see Figure 11.14). During the 1988–1991 period, Brandy’s vernacular was generally like Sheila’s before Sheila began spending summers in Wilson (the high rate of had+past use is misleading since there are only two relevant tokens in the data). As she began to spend summers in Wilson, Brandy was clearly affected by her urban peers (note the increased use of habitual be). However, changes in her vernacular do not represent a straightforward linear development toward urban norms, like Sheila’s, but rather the interplay of competing urban and rural norms. For instance, her use of both zero third person singular and zero copula decreased between 1988–1991 and 1994–1996 and then increased between 1995 and 1999. Her use of habitual be and had+past as a simple past, on the other hand, declined slightly (but not significantly) after 1994–1996. While the full extent of the influence of urban norms on Brandy’s vernacular is not yet clear, it is clear that her vernacular had not stabilized by the time she graduated from high school and that it is still developing.
In light of the research discussed in Labov (1994), the evidence presented in Cukor-Avila (2000), and the recent work of Sankoff and her associates (Sankoff 2004; Sankoff and Blondeau 2007; Wagner and Sankoff 2011) it seems that while vernaculars are generally stable during the adult years, they can sometimes expand quantitatively either in the direction of an innovation or of a more conservative form. While these quantitative changes during adult years may make it difficult to interpret the pace of linguistic change, there is no evidence that they invalidate the apparent time construct. Before the adult years, however, the results are not as clear. Cukor-Avila’s data clearly demonstrate that in many instances the vernaculars of teenagers, even those of older teenagers, are not yet stable. In the early adult years we can reasonably assume that a vernacular is relatively stable, but apparent-time data for teenagers as one of the age cohorts must be viewed with some suspicion.

2.3 The possibility of age-grading

Changes that are age-graded, that is, correlated with a particular phase in life and repeated in successive generations, have long been recognized as potential problems for the apparent-time construct. Chambers notes that “very few changes of this kind have been reported” (2009: 201). Most of those that have been reported involve the speech of children or adolescents and are thus less relevant to the apparent-time construct than they might otherwise be. More relevant to the construct are the sociolectal adjustments that young adults sometimes make in response to the pressures of the marketplace.

Research in both Canada and the United States suggests that in some cases adults, especially younger adults, may adjust their vernaculars toward the norms of the larger society better to meet the demands of their jobs. Sankoff and Laberge (1978) showed that market pressures were a significant factor in the occurrence of three grammatical variables of Montreal French: auxiliary avoir and être, complementizer ce que/qu’est-ce que, and indefinite on/ils. To some extent, the linguistic changes that New Yorkers make in Labov’s (1966) department store survey also seem to represent sociolectal adjustments to the new norm for constricted (r). Labov (1966, 1972) notes that in his New York City department store survey, the youngest Saks employees have the highest rate of r-fulness, but at Macy’s it is the oldest group that has the highest rate of r-fulness (see the discussion below). Apparently, Macy’s employees do not become aware of the norm for constricted /r/ that is pervasive in much of the United States until later, when their range of social contacts begins to expand. Responding to this broader social norm, they then make adjustments that Saks employees had made at an earlier age.

The study of the effects of the marketplace is not well developed, but it seems clear that for young adults, professional pressures may have linguistic consequences (cf. Rickford 2009). Age-grading that is driven by the marketplace is much more restricted in scope than is the age-grading that is associated with language acquisition. The relationship between these different kinds of age-grading has yet
to be explored, but the possibility of its occurrence must be taken into account in any apparent-time study (Cukor-Avila and Bailey 2007).

Work on age-grading in adults (Sankoff 2004; Sankoff and Blondeau 2007; Wagner and Sankoff 2011) suggests that the relationship between change in progress and age-grading is more complex than was previously understood. While changes in individual vernaculars may either move in the direction of an innovation or in a retrograde direction, they apparently only affect the rate of change and not whether the change actually takes place. Future research must be directed at the interaction of age-grading among adults with changes in progress. As we come to understand these interactions, we will have a better understanding of how to distinguish age-grading from change over time.

3 The Use of Real-time Evidence

At first glance, real-time evidence would seem to be the ideal mechanism for exploring language change, but real-time evidence actually poses a number of potential problems for researchers. Researchers who want to use real-time evidence for studying language change have only two options: (i) they can compare evidence from a new study to some pre-existing data, or (ii) they can re-survey either a community (through a trend survey) or a group of informants (through a panel survey) after a period of time has elapsed. Neither option is without problems, but both can offer valuable insight into language change.

3.1 The use of existing evidence

In many cases, earlier linguistic evidence does not exist, and when it does, it often was not collected or organized in a manner that permits straightforward comparisons. For instance, linguistic atlas data collected between 1930 and 1980 exist for many parts of the United States. Linguistic atlases survey a region to catalog its primary linguistic features, outline the spatial (and to a lesser extent, social) correlates of those features, and provide a historical baseline for reconstructing their linguistic history and measuring their future development. Linguistic atlases record the data they elicit using a fine-grained phonetic alphabet, and because of their historical and spatial orientation, they necessarily have samples that are biased toward older informants and rural areas. Variationists using atlas data to study phonological change may find that the detailed impressionistic phonetic transcriptions used to record atlas data actually provide so much phonetic detail that the transcriptions must be recoded to be comparable to data from other sources. Such recoding requires familiarity with the phonetic norms used by atlas scribes and introduces a potential source of error. Bailey et al. (1991) could use LAGS data profitably to test the apparent-time differences in PST mainly because Bailey was both a LAGS scribe (and thus intimately familiar with LAGS phonetic norms) and the principal transcriber of the PST data.
Differences in sampling procedures also pose potential problems. As Bailey et al. (1997b) have shown, relatively small differences in sample populations can have statistically significant effects on results, even when surveys are conducted in the same way. As noted above, differences between the sample populations of LAGS and PST account for the fact that the apparent-time distributions of monophthongal /ai/ in night in PST suggest stable variation in the use of this feature, while the differences between LAGS and PST suggest a change in progress. Further, as the discussion of might could above shows, differences in the ways that information is elicited can also create significant differences in results (Bailey et al. 1997b).

Although the effects of different elicitation strategies can sometimes be seen even within a single survey (see Bailey and Tillery 1999), apparent-time evidence minimizes the variation that might arise from differences in sample populations, in elicitation strategies, and in the recording and presentation of data when evidence from an existing data source is compared to data from a new study. A re-survey of an area can also minimize this kind of variation by explicitly controlling for those factors.

### 3.2 Re-surveys

Labov notes that “the ideal method for the study of change is diachronic: the description of a series of cross sections in real time” (1982: 218) either through a trend survey (a series of independent random samples) or a panel survey (reinterviewing the same individuals over a period of years). Although re-surveys overcome many of the limitations of existing data, re-surveys are also not without potential problems (see Labov 1994: 73–112). For instance, if we were to re-do PST using the same methods (a random sample telephone survey), the sample populations of the two surveys would not be exactly the same simply because of the rapid, ongoing demographic changes currently taking place in Texas. In 1990, for instance, Hispanics comprised 25.6 percent of the Texas population, while Anglos comprised 60.6 percent and African Americans 12.6 percent. In 2000 and 2010, however, the percentage of Hispanics in the state rose to 32 and 37.6, respectively, while the proportion of Anglos declined to 52.4 percent in 2000 and 45.3 percent in 2010. The African-American population remained stable, at 12 percent in 2000 and 11.8 percent in 2010. These trends are expected to accelerate over the next few years so that the more distant from 1990 the re-survey is, the more different the sample populations are likely to be.

Because ethnicity correlates with many linguistic features in Texas, the demographic changes that affect the sample populations can be expected to have significant linguistic consequences. Thus a re-survey of Texas in 2012, for example, might find a smaller percentage of the Texas population using might could (as in “I might could come early if you need me to”) than our 1989 survey found. The decline in the percentage of might could users, however, would probably not reflect a change in progress, with a recessive feature disappearing, but rather a change in the demographics of the state. The segment of the population that least uses might
could, the Hispanics, is expanding rapidly, while the segments that use it the most (Anglos and African Americans) are either declining or remaining stable. Thus even the apparent-time evidence from a re-survey might also suggest that might could was disappearing. Since the Hispanic population tends, on average, to be younger than the Anglo population, younger age cohorts in future samples will have higher percentages of Hispanics and, most likely, lower percentages of might could users.

Researchers conducting trend studies must always be on their guard against confusing demographic change with actual linguistic change within a population. While the evidence from trend studies must be interpreted carefully, they can provide significant insights into language change that either corroborate or lead to the reinterpretation of data from an earlier study, as Johnson (1996) and Fowler (1986) demonstrate. Fowler’s precise replication of Labov’s department store survey of (r) is particularly useful here since Labov relied heavily on the apparent-time construct in reaching his conclusions about change in New York City speech. In 1962 Labov attempted to gauge the encroachment of constricted /r/, the norm for most of the nation, into New York City, traditionally a bastion of unconstricted /r/. To do this, Labov carried out a rapid, anonymous survey of three Manhattan department stores: Saks Fifth Avenue, a high-end retail store; Klein, a low-end store; and Macy’s, a mid-range department store. His basic assumptions were that the linguistic norms of the sales personnel in each store would mirror the linguistic norms of the customers and that, other things being equal, generational differences among personnel would mirror linguistic changes over time. In 1986 Fowler replicated Labov’s department store survey by interviewing the same number of informants in the same stores (except that Macy’s had to be substituted for Klein, which had closed) using the same set of questions asked in the same sequence.

Figure 11.15a and Figure 11.15b, which present some of the results of both the 1962 and the 1986 studies, support Labov’s hypothesis that the development of a new prestige norm of constricted (r) is leading to linguistic change, but the new data also show that the change is proceeding slowly and in a relatively complex manner. In addition, the re-survey confirms Labov’s (1966) identification of a pattern of age-grading, or perhaps “sociolectal adjustments,” to use Chambers’ term (2009: 190–191), that is superimposed on the pattern of phonological change.10 In upper-middle-class speech, exemplified by the data from Saks, the new norm is most evident in the speech of the youngest subjects, but in the speech of the lower middle class, exemplified by the data from Macy’s, the norms for constricted /r/ are most evident in the oldest informants. Labov (1982) suggests that this pattern reflects the fact that members of the lower middle class only become aware of the new norm as their social contacts and social awareness expand as they grow older. Hence they begin to shift toward the new norm at a later age. Labov (1994: 86–94) points out that the re-survey shows the same pattern of age-grading, though the basic rate of r-fulness has increased in the 24-year interval.

Panel surveys are not affected by demographic changes that transform the population of an area, but they present other practical problems. Researchers must find the same informants they originally interviewed and interview them again
The mobility of many populations makes finding the same informants a difficult task, especially in large-scale surveys. Further, the changing dynamics of communities may make it difficult to re-interview informants in the same way that they were interviewed earlier. Moreover, because it is difficult to re-interview all of the original informants in a panel survey, the sample is likely to be significantly smaller and less representative in the re-survey. Nevertheless, panel surveys are crucial for exploring stability and change in individual vernaculars, as discussed above, and may also offer insight into how linguistic changes diffuse (cf. Cukor-Avila and Bailey 2011; Cukor-Avila 2012).

**Figure 11.15a** Age stratification of (r) in Saks in 1962 and 1986. 
*Source: Labov (1994).*

**Figure 11.15b** Age stratification of (r) in Macy’s in 1962 and 1986. 
*Source: Labov (1994).*
The Springville project discussed above represents an attempt to carry out a panel survey on a relatively large scale. The project currently includes interviews with more than 103 residents of the area, approximately two-thirds of whom have been interviewed at least twice and more than half of whom have been re-interviewed on an ongoing basis since 1988. The Springville evidence is particularly valuable in documenting the diffusion of features of urban AAVE to the surrounding countryside and in suggesting mechanisms by which this diffusion takes place. The data from Sheila and Brandy presented above indicate that as late as the mid-1980s, the vernacular which Springville children, 12 years old and under, first acquired was for the most part the older, rural AAVE that had characterized Springville speech for a century or so (Bailey and Maynor 1989). As those children developed urban ties and became more oriented to life in nearby towns and cities as teenagers, they then acquired the urban AAVE that developed in cities after World War II. As these teenagers have reached their 20s, they have maintained the urban vernacular, and the most recent data suggest that it is steadily supplanting rural AAVE as the primary vernacular of the Springville community (for details, see Cukor-Avila and Bailey 1996, 2007, 2011). In many respects, then, the evolution of Sheila’s and Brandy’s vernacular is a kind of microcosm of the evolution of AAVE in rural Texas.

4 Progress with Caution

Although real-time studies can clearly provide unique insights into the mechanisms of language change, in fact they are more complicated to execute and are likely to have more sources of error. Real-time evidence introduces issues of comparability, sample design, elicitation strategies, and demographic change in the target population that must be taken into account. Further, the simple difficulty of acquiring real-time evidence often weighs against its use.

Fortunately, the apparent-time construct has proven to be an excellent surrogate for real-time evidence, and the relative ease of collecting apparent-time data means that it will be used most often in research on language change in progress. Like real-time evidence, though, apparent-time evidence often cannot be used in a straightforward, mechanical way. The value of apparent-time data is in large part a function of the size and representativeness of the sample from which it is taken. Moreover, researchers should be careful when making assumptions based on apparent-time data from adolescents and teenagers, and they must be alert both to the possible effects of sociolectal adjustments and to age-grading with adult cohorts. When researchers heed these cautions, however, apparent time offers a powerful tool for the analysis of language change as it is taking place and forms the basis for a synchronic approach to language change.

In the best of circumstances, of course, researchers will be able to combine apparent-time data with real-time evidence, with the relative strengths of one approach offsetting the weaknesses of the other. It is in these circumstances that researchers will attain the kind of insights that revolutionize our understanding
of language change and make the study of change in progress the apogee not only of sociolinguistics but perhaps, as Chambers (2009: 160) says, of contemporary linguistics.

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This chapter is based in part on Bailey et al. (1991) and Cukor-Avila and Bailey (2007, 2011). We wish to thank Jan Tillery and Tom Wikle for their assistance.

NOTES

1 As Labov points out, he was not the first to use generational differences to make inferences about diachronic change. Gauchat (1905) had used apparent time to study sound change in the Swiss village of Charmey near the end of the nineteenth century. Hermann’s (1929) reinvestigation of the village some 30 years later largely confirmed Gauchat’s findings. For an evaluation of Gauchat’s work, see Chambers (2008).

2 For a description of PST, see Bailey and Bernstein (1989); both PST and GRITS are discussed in Bailey et al. (1997a) and in Bailey et al. (1997b).

3 It may be that the proportion of the Texas population having fronted onsets will decline over the next three decades as the demographics of the state change, but none of the three ethnic groups shows any evidence of changing its norms for /au/. See Bailey (1997) for further discussion.

4 Internal evidence from LAGS confirms the role of question strategies in obtaining data on might could. The one LAGS fieldworker who relied on self-reports rather than indirect elicitations to obtain the form accounts for more than a third of the LAGS data, even though she conducted fewer than a fifth of the LAGS interviews. See Bailey et al. (1997b).

5 Note, however, that the methodological differences do not affect every feature in the same way. The GRITS data on fixin to also come from self-reports, while the LAGS data again come primarily from indirect elicitation. Framing questions that would elicit this feature proved much easier than framing questions for might could, and those questions elicited more positive responses in LAGS.

6 Although linguists have sometimes argued that large samples are not as important for linguistic surveys as for other types of surveys (see Sankoff, 1980: 51–52), there are no empirical studies that actually test the issue of sample size and representativeness in linguistics. Our work on survey methods, however, suggests that even small changes in sample populations can have significant effects on results in linguistic surveys (Bailey et al. 1997b). We are currently exploring the specific issue of sample size and representativeness.

7 Ongoing analyses of data from recent recordings of both Sheila and Brandy from 2002, 2009, and 2010 suggest that their vernaculars were still developing throughout their 20s and have now begun to stabilize as they reach adulthood (Cukor-Avila and Bailey 2007, 2011).
8 Historical linguists and researchers studying language acquisition have always used real-time data, but in neither case have they used it to study language change in progress, which is the primary focus of the variationist paradigm. In fact, while providing valuable data, the panel studies used in acquisition research are inappropriate for the study of change in progress (cf. Van Hofwegen and Wolfram 2010).

9 See Pederson et al. (1986) for an example of contemporary linguistic atlas methodology.

10 The idea of a “superimposed pattern” represents our interpretation of the New York City data. It may be, however, that the pattern of change is superimposed on the pattern of age-grading since the effects of age-grading are larger than the effects of generational change (see Labov 1994: 86–94).

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Child language variation is an area of research that emerged within the field of variationist sociolinguistics, for the most part, after a good deal of work on adult variation had been accomplished. To be sure, children have been included from time to time in studies of variation, beginning with Fischer's groundbreaking examination of (ing) variation among school children in 1958. However, the focus had not been on children before adolescence for theoretical as well as methodological reasons. The purpose of this chapter will be to review briefly the work leading up to the more recent interest in child language variation, and to examine two specific issues that have been or may be fruitful areas of exploration.

1 History of Child Language Variation

There are a number of reasons why the early work on language variation and change did not focus on the speech of young children. For one, the field itself is only approximately 50 years old. It appears reasonable in a new field of linguistic study, particularly one building on dialectology – a notably adult-focused discipline – that data would be collected first from speakers who were thought to control the particular dialect in question and its variations. Children, on the other hand, were seen primarily as “acquirers” of the vernacular of a speech community, not necessarily as contributors to its maintenance and change. Indeed, Labov (1964) noted that although dialect features are learned during childhood, it is mainly in adolescence that socially significant variation is demonstrated. In addition, with his early work (1963, 1966, for example), Labov initiated the study of language variation and change, including using synchronic data to illuminate past
linguistic patterns and changes as well as to predict future change. This practice depends crucially on the assumption that dialect patterns, once attained in adulthood, do not change significantly throughout the life span. Although this assumption continues to be debated within the literature, it is the source of much synchronic work and encourages a focus on the speech of adults, since that of children acquiring a linguistic system would not, in principle, be useful in the study of historical processes.

In addition to adult-focused research, explorations of the speech of adolescents have also been extremely fruitful. The evidence for the robustness of the adolescent peer-group-created vernacular is abundant (see Kirkham and Moore in this volume). In this chapter, I will suggest that the adolescent does not emerge, dialect intact, from a vacuum (Roberts 1999; Eckert 2000). The foundations for adolescent, and adult, speech patterns are laid down in childhood, during the early language acquisition process, and it would appear useful to look to the dialects of children for answers to some of the questions of linguistic variation and change.

As noted above, some very early variationist work did include children as participants. Most notably, Fischer (1958) found social variation in children, aged between three and 10, and stylistic variation in a 10-year-old boy. However, he did not separate the children by age in his analysis, so it is impossible to state whether or not the youngest children in his study shared the pattern documented in his overall results.

Others examined variation in young speakers as well, but most frequently concentrated on school-age, rather than preschool, children. For example, Romaine (1978) continued the exploration of social and stylistic variation in children by looking at the production of word final /r/ in Scottish English by 6-, 8-, and 10-year-old children and found gender, age, and style variation. Her conclusions were noteworthy not only because they documented the acquisition of social variation in young speakers, but also because she concluded that they were participants in linguistic change. That is, the girls were taking part in a change from above the level of consciousness favoring a prestige variant, and the boys were participating in a change from below the level of consciousness favoring a variant with less, or perhaps covert, prestige. Similarly, Reid (1978) examined the production of glottal stop and the alternation of (ing) and found style variation in 11-year-old boys in Edinburgh, Scotland.

Purcell (1984) documented social and style variation operating on several variables produced by 5- to 12-year-old speakers of Hawaiian and “General” American English. She, like Fischer, did not break her findings down by age, making it impossible to determine the contribution of her youngest speakers to her findings. Nevertheless, the results are encouraging in showing the sensitivity to stylistic and social factors in the pre-adolescent years.

One of the first studies to look at variation in preschool children was also one of the first to examine linguistic constraints on variation in children of any age. Kovac and Adamson (1981) studied deletion of finite be in African-American and European-American three-, five- and seven-year-olds. This is a well-documented feature of African American English (Wolfram 1969; Labov 1969, 1972; Baugh 1986;
As has been found to be the case with other dialect features throughout the history of variation studies, forms of *be* are deleted systematically by adult speakers and are much more likely to be deleted in some linguistic and social contexts than in others. For example, Labov (1969) demonstrated the relationship between contraction of *be* in European-American English dialects and deletion of *be* in African American English. He found that both contraction and deletion were favored by the presence of a preceding pronoun over a preceding noun, and by auxiliary *be* over copula *be*, particularly the *be* + *gonna* environment. Preceding phonological environment has also been found to affect contraction and deletion of *be*. Studies of African-American children showed that the constraints on deletion were even more difficult to acquire than the rule itself. Although the children had acquired the deletion feature by age five, demonstrating patterns of deletion that were not typical of developmental deletion, they had not mastered the full complement of constraints until much later.

Guy and Boyd (1990) examined the grammatical constraints on (-t,d) deletion in their study of its use by speakers aged between four and 65 in “semi-weak” or “ambiguous” past tense English verbs, such as *lost, told,* and *slept*. Like contraction and deletion of *be*, (-t,d) deletion is a widely studied phenomenon in dialects of English (Labov *et al.* 1968; Wolfram 1969; Fasold 1972; Guy 1980; Neu 1980). It is a form of consonant cluster reduction involving word-final clusters ending in /t/ or /d/ and is influenced by both the grammatical form of the word in containing the (-t,d) feature as well as phonological constraints, particularly the phonological segment following the cluster, and social features, such as gender, social class, and ethnicity (Guy 1980). Guy and Boyd concluded that younger children mastered the phonological and morphological constraints on deletion but that the acquisition of (-t,d) deletion in semi-weak verbs was potentially a long process, with the youngest speakers not producing the stop segments at all. A group of adult speakers deleted (-t,d) in final clusters in semi-weak verbs at an intermediate rate, between monomorphemic words and past tense verbs, demonstrating their analysis as separate morphological classes. A mid-level group, comprising older children and some adults, however, appeared to analyze the semi-weak verbs as essentially the same as monomorphemic words (e.g. *mist*, *cent*) and deleted the final segment accordingly, demonstrating that the treatment of the semi-weak verbs as a separate morphological class is incomplete even in some adult speakers.

Roberts (1996, 1997a) also examined (-t,d) deletion in a larger sample (16 speakers) of three- and four-year-old Philadelphia children. The children demonstrated an acquisition of the following segment constraint that was very close to that of adults, including the inhibiting effect of following pause on deletion, found to be typical in Philadelphia but not in New York (Guy 1980). This particular finding suggested strongly that the children were indeed learning socially significant features, not responding to a universal constraint of consonant cluster reduction. Further, the children demonstrated the adult pattern of deleting (-t,d) segments more often in monomorphemic words than in regular past tense verbs. For the semi-weak verbs, however, the similarity with adult speech ended, with the children...
consistently treating the semi-weak verbs like monomorphemic words (i.e. high probability of deletion) and the adults treating them like regular past tense verbs (i.e. low probability of deletion).

In addition, examination of the data revealed that as the children produced increased numbers of more sophisticated grammatical forms, such as participles, they demonstrated adult-like deletion with them, suggesting that variation is learned simultaneously with the related grammatical and lexical forms. The resulting argument was that the children were indeed engaging in systematic variation, often quite similar in structure to their parents, and they did appear to include the final (-t,d) stops in their underlying representations of semi-weak verbs. The results strongly suggested that the children were formulating rules, not learning patterns in an item-by-item fashion, and they demonstrated adult-like patterns of deletion only when they shared an adult-like structural analysis. The study explored children’s acquisition of stable variation only, however. It did not address children’s acquisition of sound change in progress, nor did it explore the question of whether or not children were able to move beyond acquisition and participate in the variation and change patterns of the speech community of which they were a part.

Labov (1989) noted that as children’s language input is variable, as demonstrated by the voluminous research on adult variation, it stands to reason that children’s output would be also. This statement, reasonable as it may seem, however, is a long way from demonstrating the mechanisms that allow children to turn the language they hear into the resultant child language system. This very connection has been hotly debated for years by psycholinguists and linguists engaged in the exploration of the nature vs. nurture question in child development. It is not necessary for variationists to enter into this debate in order to discuss the modeling and acquisition of language features that are clearly socially governed and dialect specific. The above detailed research demonstrates clearly that children hearing variable input will acquire it, at least in situations of stable variation. The discussion below will move the inquiry into language change and children’s acquisition of these even more variable features.

Roberts and Labov (1995) examined the acquisition of the Philadelphia short a (as in cat) pattern by some of the same preschool children participating in Roberts (1996, 1997a). The vowel pattern in question is a highly complex one and features lexical, phonological, and grammatical conditioning. For example, short a preceding /f/, /θ/, /s/, /m/ and /n/ is raised and tensed, whereas in the environment of /p/, /b/, /d/, /k/, and so on, short a is low and lax. However, there are lexical exceptions to this phonological conditioning in that in the words mad, bad, and glad, in which short a would be predicted to be lax, it is, in fact, tense. In spite of the complexity of this pattern, the children demonstrated significant learning of Philadelphia short a. Some of the more straightforward and stable constraints, such as tensing before nasals and in mad, bad, and glad, were consistently produced. However, the pattern is further complicated because some of these patterns have been demonstrated to be in the process of change, such as the environments before /l/ (e.g. personality) and intervocalic /n/ (e.g. planet) in
the tense short a class, in the speech of adolescent and young adult Philadelphians. Between the ages of three and four, the Philadelphia children demonstrated active improvement in their learning of these features. They also showed increased rates of tensing in these environments where change was occurring as compared with adults, which suggested that they were beginning to participate actively in the process of language change. This finding has important implications for the future study of this area as it highlights the possibility that children of this age are interesting to variationists, not only because they are actively acquiring socially governed features but also because they are influencing changes and may be indicating sites of change that may be accelerated or otherwise modified as the children mature.

Foulkes et al. (1999) also explored the acquisition of variation in preschool children. In their study of glottal variation in 40 children from Newcastle upon Tyne, aged between two and four years, they found that children were able to learn sophisticated variable patterns at quite young ages. Glottalization of /t/ encompasses both the replacement and the reinforcement of /t/ by glottal stop. They pointed out that, unlike traditional phonological researchers, they were not interested in the emergence of phonological contrasts but rather in the range of alternants acquired by the children, and, similar to previous findings on other variables, they concluded that the children were making good progress in mastering the complicated glottal stop pattern. In addition, however, acoustic analysis revealed that high degrees of pre-aspiration of /t/ were found in the children’s speech, including that of the two-year-olds, for (t) in utterance-final position. This finding runs counter to those reported by others, such as Locke (1983, in Foulkes et al. 1999: 17), who claimed children to be “operating under phonological rules of simplification.” This pre-aspiration pattern was found to be predominant in the speech of young women in Newcastle upon Tyne, but it was adopted by both the boys and the girls in the study. Finally, there are some patterns of glottalization that are lexically restricted, such as the substitution of glottal stop for /t/ in word-final, pre-pausal position, as well as the use of [r] for /t/. Although amounts of this type of data were small in the samples (19 tokens), the children did appear to show sensitivity to this type of lexical conditioning, in that they produced [r] only in words that would tolerate them in adult speech.

2 Current Issues in Child Language Variation

Most of the early studies of child variation, as discussed above, showed that children, even before the age of five, have a remarkable ability to acquire language variation, including some highly complex variable systems. They acquire fine-grained linguistic constraint systems, demonstrating an emerging awareness of such features as different verb markings, pre-glottalization, and vowel raising with multiply-constrained rules. They learn both stable patterns of variation and patterns involved in language change. There has not, however, been parallel progress in the study of acquisition of social variation – that is, the ability to use
and respond to language in ways that demonstrate one’s knowledge of and affiliation with one’s own speech community. In fact, early work by Labov (1989) and subsequent studies by Roberts (1996, 1997b) and Smith, Durham, and Fortune (2009) suggest that such abilities may not be there to be found in young children.

Part of the reason for these discrepant findings may be that some researchers looked only at the linguistic constraints when studying variation acquisition, or, at any rate, used methods most adept at bringing variation based on linguistic constraints to light. For example, the study by Guy and Boyd (1990), mentioned above, had as its aim the patterning of the complex morphological and phonological constraints on (-t,d) deletion, not its social variation.

However, even those studies that examined social, as well as linguistic, variation often failed to find it. Labov (1989) studied stylistic and linguistic variation for (-t,d) deletion and (ing) apicalization in a small sample of children and their parents outside Philadelphia. He found that a seven-year-old boy replicated his parents’ patterns of stylistic and linguistic variation in (-t,d) deletion with the exception of treating semi-weak verbs identically to monomorphemic words. This child had also mastered both the linguistic and the stylistic constraints on the alternation of (ing), but a six-year-old had mastered only the stylistic variation, and a four-year-old showed no sign of acquiring the constraints on the (ing) alternation at all. Roberts (1996, 1997b) corroborated these findings with a larger sample of three- and four-year-old children, who showed no social variation in their productions of (-t,d) deletion or (ing) alternation.

Durham, Fortune, and Smith also studied preschool-age children for (-t,d) deletion (2007) and use of third person plural -s in plural contexts (Durham, Smith, and Fortune 2008). Their method differed from those studies previously discussed in that they gave recording devices to the children’s caretakers. This innovative method allowed for very natural recordings of the children in everyday “real life” situations. One would predict, then, that if there was social variation to be found, this method would favor its discovery. Nevertheless, they found no evidence of social or stylistic variation on these two features. They did, however, find social variation on another variable (a local, variable production of /au/), using the same method. In this case, the children favored the local variant more in play situations than in discipline and teaching situations (Durham, Fortune and Smith 2007).

It would seem, then, that Smith, Durham and Fortune’s findings notwithstanding, social variation follows linguistic (i.e. phonological, lexical, syntactic, etc.) variation. However, work from other areas of language acquisition research suggests that this is not the case. In fact, the study of variation in children learning creole and “standard” language varieties indicates that social variation is, indeed, learned much earlier than most variation studies would indicate.

Youssef’s (1991) longitudinal study explored bilingual acquisition in a Trinadian child exposed to Trinidadian Creole (TC) and Standard English (SE) from the age of 2;7 to 4;9. She found that, far from social variation being late in developing, it was, rather, the case that “a large part of the [child’s] observed variation was
determined by addressee-related factors as well as by semantic intent” (1991: 79–80). In fact, social variation began at the earliest ages recorded (2;7) when the child used more of the TC (an English-lexicon creole) with his TC-speaking caregiver than with his SE-speaking mother. By age four, the child was demonstrating more sophisticated social patterns by favoring SE forms in narrative contexts and TC forms in other (e.g. interactional) ones. In 1993, Youssef broadened her study to include two additional speakers, and, again, found signs of social variation at the studies of the earliest ages. Audience effects were again noted, as were effects of topic, intimacy, and activity. The three children differed as to which constraints were most important, but all showed social variation of some sort.

Quay (2008) studied the language acquisition and use of a child aged 1;3 to 2;10 in a trilingual learning situation. She found that the child varied her choice of language according to the language usually used by her listener. Further, at the age of two, she showed evidence of prioritizing language choice based on her interlocutor and her own ability in the language in question, sometimes using a combination of languages that were known to her listener.

Creole and bilingual acquisition studies tend to be micro-analyses involving small numbers of children, often only one child. It is perhaps understandable, then, that the acquisition of social variation would show up in bilingual language situations more often and/or earlier than in the monolingual variationist studies. The researchers can, and do, follow the children into a number of language situations and settings – home, preschool, and so on – allowing for more disparate conditions in which the child’s language can be studied. Children were often recorded in different settings, all of which they were familiar with and most of which encouraged different language features. In addition, these studies tend to focus on syntactic, morphological, and lexical variation; whereas variation studies have been centered on phonetic and phonological variation. And, of course, there is the obvious observation that bilingual studies are about the acquisition of variation between two varieties, rather than within one.

It is possible, although not at this point demonstrated, that social variation is acquired (or demonstrated) across languages before it is within them. However, the findings of Durham, Fortune, and Smith (2007) are striking when compared to those of Youssef. As noted above, their study of /au/ variation is exceptional in that they found style variation in a dialect acquisition study. Their methods, although more children were involved, were somewhat similar to those of Youssef and Quay, in that they recorded children in the most naturalistic settings possible: the children were recorded during everyday interactions with their caretakers and with no researcher present, and in the children’s homes. Youssef and Quay were present in their taping sessions but in both cases the research was longitudinal, and the researchers developed close ties with the speakers and their families. In addition, all three of these studies featured recordings of the children in a variety of naturally occurring activities. In contrast, Roberts (1996, 1997a) recorded different activities involving more or less structure, but all were initiated by the researcher and none were part of the children’s everyday lives. It seems plausible that these differences in method alone could account for some of the differences
in the findings of style differences. Certainly, these are questions that cry out for further research.

A second challenge in the exploration of child variation is the difficulty in distinguishing between variation that is socially motivated and that which is developmental in nature. Both variationists and psycholinguists agree that research is most successful if child-centered. Eckert, for example, notes the importance of emphasizing that the child’s sociolinguistic system at any given age is not merely a “manifestation of an effort to develop ‘real’ language, but a fully mature linguistic form for that stage of language” (2000: 10). Although this child-centered focus on language acquisition is not new to psycholinguistic research (see, for example, Bloom and Lahey 1978), the child variationist, in fact, will receive less help from language acquisition study than might be expected. One reason for this is that the primary focus of research in child language acquisition has been on categorical features of language. Although individual variation is acknowledged, it is frequently seen as a difference in learning style – with all styles leading to the same endpoint, the acquisition of an adult linguistic system and any remaining differences indicating potential communicative or cognitive disorders (Nelson 1973, 1975). At the level of phonology, on which most variation studies, particularly child variation studies, have focused, the emphasis has also been on consistency and categoricity. Intra-speaker variation is characterized in terms of its difference from adult forms. As Ingram (1986: 223) states, “As the child gets away from the peculiarities of his individual ‘little language’, his speech becomes more regular, and a linguist can in many cases see reasons for his distortions of normal words.” More contemporary child language research, following generative linguistic theory, centers on constraints on production, as opposed to rules and processes, but the emphasis continues to be on “emergent systematicity” (Vihman 1996).

This does not mean that there have been no studies shedding light on this issue, however. Kovac and Adamson, as noted above, were among the first to look at variation in preschool children. They used the variable of be deletion to consider the question of developmental versus dialectal variation. They found that for the European-American children, absence of finite be appeared to be developmental in nature. For the African-American children, however, the results varied by socio-economic class. Working-class African-American children acquired the deletion rule before the middle-class children, whereas contraction preceded deletion for the middle-class children, a pattern that resembled the class norms of the adults.

Youssef (1999) and Roberts (1997a) also tackled dialectal vs. developmental variation in the research described above. Roberts interpreted the finding that children matched all constraint patterns in both (-t,d) deletion and (ing) alternation as evidence that the children were not deleting according to phonetic or grammatical developmental tendencies. Youssef found that a useful way to disambiguate the two was, in fact, a technique familiar to variationists of all stripes: frequency of production. Specifically, she used the strategy of a combination of a change in production of greater than 10 percent coupled with a change in situation as an indicator of stylistically influenced variation.
The previous discussion suggests that although progress has been made for both challenges, stylistic variation and distinguishing developmental from dialect variation, much work remains to be done. Sharing with and learning from colleagues in related fields appears to be a particularly fruitful way to approach these issues.

3 Variable Input: Child-directed Speech (CDS)

With the existing evidence supporting the hypothesis that children are acquiring variable patterns early along with categorical forms, researchers began to look more closely to the input children were receiving and to their responses to that input. Historically, variation in input has not been seen by the linguistic community as necessarily helpful to a child’s acquisition of language. Rather, it has been viewed more frequently as detrimental, or part of the “noise” in the “degenerate quality” of the input data children receive (Chomsky 1965: 58). Even the considerable research on child-directed speech (CDS), beginning with Ferguson (1977), is focused on the simplification, exaggeration, and consistency of the input and its effectiveness or, sometimes, lack of effectiveness in language teaching, not on its variety. Closer looks at input have been taken by variationists examining a number of features.

Labov (1990) noted similarities between children’s dialect-specific productions and those of their mothers, and hypothesized that the early childcare situation, which is often female dominated, could lead to a favoring of female-led sound changes and a disfavoring of those led by males. Roberts (1997b) examined this hypothesis again, using the same Philadelphia preschool speakers. She found that the female-led changes were, in fact, learned most effectively by the children as compared with the one male-led change – the centralization of long (ay), as in kite. In addition, even though all of the children in the study were natives of Philadelphia and attended day care with Philadelphia children and teachers, the changes were acquired most effectively by the children who also had parents who were Philadelphia natives. These results support the conclusion that early input is important, at least in the early learning of socially influenced variables.

Foulkes et al. (1999) also noted the importance of early input. As previously noted, they found that the features of pre-aspiration characterizing the speech of young women were more easily learned by both the boys and the girls in their study than features characteristic of adult men in the community. They also made the argument that, rather than being dysfunctional to language acquisition, variation in the input to young speakers can actually enhance the movement from the holistic word level of representation to segmental awareness by producing allophonic examples, which “may serve to highlight the location of permutable components of words” (Foulkes et al. 1999: 20).

The movement from the lexical to the segmental level of phonological acquisition is a subject that continues to engage psycholinguists and developmental
phonologists. Agreement as to the nature and timing of this process is still elusive. Whereas some researchers have found segmental awareness to occur early in the language acquisition process, others have reported that it continues well into the school years. (See Vihman (1996) for a review of this literature.) In addition to aiding this process in children, as Foulkes et al. propose, it is possible that the presence of socially governed, allophonic variation in young children, noted by Foulkes et al., Roberts (1996, 1997a), and others, also supports an argument for early segmental awareness. At the very least, the findings suggest an early beginning to this phenomenon.

This emergence of segmental awareness could also indicate to young children the locations of systematic variation in the input grammar – locations that could be exploited in later years. Some preliminary work on Southern American English, on mothers speaking to their toddlers and to an interviewer in Memphis, Tennessee, suggests that this may be the case (Roberts 1999). Three mothers and toddlers (aged between 18 and 19 months) were tape-recorded during play. The variable in question was monophthongal long (ay), as in [kat] for kite, documented both in Alabama speech (Feagin 1979) and in Memphis adults (Fridland 1999). Two of the three children produced both monophthongal and diphthongal long (ay), while the third produced only monophthongal (ay). As the toddlers were just beginning to acquire diphthongs, the variation in these speakers was most likely developmental, not socially governed. However, observation of two four-year-old speakers revealed that their long (ay) productions also contained both monophthongal and diphthongal tokens. Although further research is needed for documentation, it seems reasonable to hypothesize that in these children, the variation of long (ay) would continue, whereas children speaking dialects in which long (ay) is more consistently diphthongal would move from developmental variation to near-categorically diphthongal productions.

More than the behavior of the children, however, it was the CDS of their mothers that revealed some clues about the process of early dialect learning. CDS has been frequently studied by psycholinguists as a widespread style used by adults speaking to very young children (Ferguson 1977). Although the efficacy of this register in stimulating language development continues to be debated, it appears clear that, to the extent that variation is present in CDS, it becomes part of the child’s linguistic input. In the Memphis study, the mothers were tape-recorded both playing with their toddlers and speaking to an interviewer. Although all three mothers demonstrated variation between diphthongal and monophthongal (ay), they all used more diphthongal (ay) when talking to their children than when talking to an interviewer. In addition, one of the mothers was especially straightforward in using CDS to instruct her child in the pronunciation of new vocabulary containing long (ay). When introducing a word, particularly a noun, she would produce it with great stress and exaggerate the glide. A likely interpretation of these data would be that the mothers are “instructing” their children in the more standard diphthongal production of (ay). Although this may seem to run counter to the claim that children learn variable patterns very early as they learn invariant ones, an alternative interpretation of the findings suggests that this...
is not the case. Rather, what the children are, in fact, exposed to is variable production of long (ay). The mothers use quite a bit of monophthongal (ay) in their talk both to their children and to the interviewer. In the case of the mother described above, she is actually exposing her daughter to a wide-ranging variable pattern – from no glide at all to an exaggerated, highly stressed glide. The mothers in this study appear to be taking their role as “teachers of language” seriously and utilizing CDS to aid them in this process. Variation is present, and sometimes exaggerated, in first language input from very early stages!

Input is also important in the work in second dialect acquisition in children that builds on the work of Payne (1980), who found age and complexity of the feature in relation to the speaker’s native dialect to be important factors in the adoption of Philadelphia dialect features by newcomers to the area. Chambers (1992) also found that age of exposure to the second dialect affected the success of its acquisition. That is, the children in his study who were exposed to a new dialect at a later age were far less successful at adopting it than those exposed at an earlier age. Chambers postulated eight principles of second dialect acquisition to aid in the prediction of the process of dialect feature adoption by new speakers. Whereas some of these, such as the effect of orthographic representation on acquisition, have no relevance to first dialect acquisition, others may be seen as a jumping-off point for future research looking at how preschool and young children acquire dialect forms. For example, Chambers proposes that whether or not a target form is variable in native speech in the dialect being acquired, it is found to be variable in the speech of new speakers. He likens this phenomenon to the process of lexical diffusion in which language change is argued to begin in a few lexical items, and then, when it has spread to a critical mass, is generalized into a rule or phonological process.

In a similar vein, Kerswill (1996) examined the dialect in the newly developed town of Milton Keynes. In this and previous work (e.g. Kerswill and Williams 1992), he, too, found that age of dialect exposure greatly affected the process of acquisition. The youngest speakers (aged four) tended to adopt the features of their parents and, hence, to show more variation in this heterogeneous population than older children, who tended to coalesce toward a common norm. Kerswill also postulates a difficulty hierarchy for second dialect acquisition with vocabulary borrowing as the easiest process, which may be accomplished throughout the life span. The most difficult would be “lexically conditioned phonological rules, which may reflect lexical diffusion nearing completion and which are not sociolinguistically salient” (Kerswill 1996: 200). He hypothesizes that these rules must be learned by age three to be fully acquired.

Research on the variability of language input, as can be seen from the above discussion, can be particularly helpful in looking at such issues as transmission of variation and change across generations. It would also seem to be potentially very useful in examining the genesis of language style in young children, since stylistic range is often accentuated in such registers as CDS. Finally, the integration of findings from second dialect acquisition research into that of first dialect acquisition would appear to be fruitful for both areas of study, particularly as some of
the more complex dialect features (e.g. short (a) in Philadelphia and the lexically conditioned rules in Milton Keynes) appear to require an intensity of input that may become increasingly rare in more mobile populations or those in which dialect leveling may be occurring.

4 Looking Forward

Eckert (2000) discusses the importance of recognizing dialect variation among children and adolescents as a form of social practice. She notes that, although adolescence is a time when vernacular forms accelerate, sociolinguistic competence has been developing for years. By secondary school, the social and educational institutions are such that the speaker’s focus is concentrated to a large extent on peers rather than on adults. Before that, however, the focus of power and influence is not clear, or, one might say the transition from the full concentration on adults as the source of influence in infancy to the dominance of peer-group influence in adolescence is a gradual process, dependent on the practices and norms of the community in question. This transitional phase presents a challenge to researchers to sort out the influence of parents and other important adults from that of peers in earlier age groups. Another way of stating this is that determining the point at which children stop primarily perpetuating the social meaning of adults and begin to utilize language socially themselves is an important goal of child variation research – but an elusive one for the researcher due to the ephemeral nature of the developmental process.

As the previous discussion shows, much of the earliest research on very young children concentrated on discovering the age(s) at which children acquire particular patterns of variation and their constraints. This work has resulted in important findings that children do, in fact, acquire sometimes complex variable patterns quite early and may begin the social use of variation at the same time. These results continue to be replicated with additional variables in additional dialects and speech communities. It would seem to be a goal of future research to add to these findings an exploration of the emerging social meaning of child variation within the family and peer-group interactional settings. The methods and findings of work in multilingual acquisition may be instructive. As we look at the future of the study of language variation and change, surely an important aspect of this exploration is the study of the newest members of the speech community as they acquire the ability to produce social meaning in their everyday interaction.

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Adolescents have long been recognised as influential in the processes of language variation and change. Survey studies have uncovered their unique role in patterns of inter-generational change, leading to the identification of the adolescent peak (see Section 2). Subsequent research has examined the social practice of adolescents in order to uncover what it is that makes them so influential in language change. In addition to augmenting approaches to adolescent speakers, this work has significantly influenced the scope of variationist analyses more generally. This chapter charts the progress of research on adolescence in variationist sociolinguistics and explores how this work has shaped the variationist enterprise. In particular, we explore some of the relationships between different strands of research and suggest that a combined approach could lead to a better understanding of the role adolescents play in language variation and change, as well as further enriching our knowledge of the stylistic capabilities of, and constraints on, human language behaviour.

1 Defining Adolescence

Adolescence is the period that emerges as a consequence of a series of biological, psychological and social transitions between childhood and adulthood. Adolescence has been studied in a number of disciplines. In psychology, it was originally conceptualised as a series of physiological and psychological processes (Hall 1904) that coincide with “the second decade of life” (Reuter 1937: 414). More recently,
it has been associated with pubertal development, an increase in the likelihood of being depressed, and an increase in risky and delinquent behaviour (Spear 2000; Steinberg and Morris 2001; Susman et al. 2003). Neurobiological research suggests that adolescence represents a transitional phase in terms of brain development (Blakemore 2008; Somerville et al. 2011). While these biological processes generally coincide with the adolescent life stage, the effect of cultural forces on physiological processes is also well known, such as the impact of socioeconomic deprivation on the age of pubertal onset (Belsky et al. 2007). The extent of this relationship is illustrated by the continuing fall in the age of puberty in the United States, which some believe may eventually require a reconceptualisation of the childhood/adolescence boundary (Herman-Giddens 2007).

In sociology, adolescence was initially conceptualised as an oppositional culture, defined in relation to adults and adult institutions (Coleman 1961). Subsequent research has revealed a much more complex picture of the relationship between adolescents and adults, with adolescence acting more as a renegotiation of the parent/child relationship than a process of complete disengagement (Crosnoe and Johnson 2011: 444). Other work has focused upon the dynamics of interpersonal relations and the influence of the peer network. Adolescence marks a sharp increase in the frequency of interactions with peers, as well as a greater desire to maintain a coherent sense of identity (Brechwald and Prinstein 2011). Educational institutions force adolescents to socialise with people of their own age and offer little opportunity for meaningful contact with individuals outside this age bracket. For this reason, schools have a profound influence on the ways in which adolescents organise themselves into friendship groups, to the extent that Eckert (2003: 112) chooses to define adolescence as “a response to the constraints (and opportunities) that these conditions place on the age group”. Sociolinguists have seized on this situation as an opportunity for observing the evolution of sociolinguistic meaning in adolescent language and the use of variation to construct social identities.

Despite the central role of adolescents in variationist sociolinguistic research, not all variationists have drawn upon the psychological, sociological and anthropological literature in defining this life stage. Adolescents are often only defined implicitly in much research, usually in terms of chronological age. Adolescents are sometimes also included as part of a “younger” age group, which can be comprised of individuals aged anywhere between 12 and 27 years old (see, for instance, Dyer 2002; Watt 2002). Etic approaches, which group cohorts in equal time-spans (such as decades), can be convenient for graphical displays of the data and for descriptive comparisons. However, broad categorisations may obscure trends that emerge at more specific age ranges. Furthermore, as researcher-defined constructs, they may also fail to reflect the socially constructed nature of adolescence in the community under study. It is for this reason that Eckert (1997) encourages the use of emic approaches, which group speakers according to their shared experiences. In the following two sections, we demonstrate how the conceptualisation of adolescence significantly affects what it is possible to learn and explain about age-correlated language variation and change.
2 The Role of Adolescents in Language Change

2.1 The adolescent peak

Adolescents have long been a focus in variationist work for what they can tell us about inter-generational dialect transmission and change. One reason for this is that adolescents often have a highly sophisticated knowledge of adult norms, but at the same time are influenced more by their peers than by adults (Kerswill 1996: 198). Adolescence has also been claimed to represent the “critical stage” in second-dialect acquisition (Chambers 2009: 181–184), although this situation is now thought to be much more complex than has previously been assumed.

Labov’s (2001: 454) discussion of the transmission of a sound change identifies a pattern that recurs in a range of studies. When a change in progress is underway, the innovative variant is used with greater frequency as the generations get younger, until adolescence, where the innovative form peaks in frequency and is then used less frequently by preadolescents. This peak around adolescence is not only found in studies of phonological variation (Trudgill 1974; Ash 1982; Cedergren 1988), but also in studies of morphosyntax and discourse features (Tagliamonte and D’Arcy 2009). It has been characterised as the outcome of vernacular reorganisation (Labov 2001: 415–417), the process by which children come to speak differently from their caregivers and, in doing so, advance a linguistic change. Kerswill and Williams (2000) have shown that children’s speech mirrors that of their caregivers until around four years, after which social forces lead children to focus on a new linguistic norm, which may involve the steady advancement of linguistic changes. Stabilisation of the vernacular is believed to occur between the ages of 14 and 17 (Chambers 2009: 175; Labov 2001: 447; Tagliamonte and D’Arcy 2009: 66), although there is still much debate about the extent of that stability, given real-time evidence of linguistic change in adults (Cedergren 1988; Blondeau 2001; Sankoff 2004). However, types of linguistic modification are clearly age-related, such that vocabulary is easily acquired whereas lexically unpredictable phonological rules are not (Kerswill 1996: 200). In this sense, the adolescent peak is the result of the vernacular stabilisation of those features that are less easily acquired later in life.

While some have interpreted the adolescent peak as evidence of age-grading (Chambers 2009: 200), Tagliamonte and D’Arcy (2009: 70) argue that it is a straightforward artefact of the “logistic incrementation of linguistic change”. As linguistic change sweeps across successive generations, we should expect each generation to show a steady increase at adolescence. Older speakers have lower rates of use because their language use stabilised at an earlier (lower) increment than that achieved by the current group of adolescents. Similarly, younger speakers only have lower use of the incoming form because they are still in the process of incrementation and have had less time to accrue increments. Unless the change reaches completion, these younger speakers will eventually surpass the current group of adolescents when their vernacular stabilises. Viewed this way, it looks like the
peak is a consequence of a mechanical linguistic process, which concludes at the critical age of vernacular stabilisation.

Does this mean that adolescence is only significant as a developmental watershed? Given what we know about the complexity of this life stage, this is unlikely. Adolescence marks a time in which individuals seek to differentiate themselves from the adjacent life stages of childhood and adulthood. In this sense, what is socially significant about adolescent language may not be the acceleration of vernacular use alone, but the fact that this life stage provides “a license and an imperative to begin acting on certain kinds of social knowledge that the age cohort has been developing for years” (Eckert 2000: 8). In this sense, it provides the perfect context in which to adapt, resignify and reconstrue language variation, irrespective of whether that variation has been first acquired in a probabilistic fashion or not.

The study of adolescent language is thus incredibly instructive in two important ways. First, it represents “the most uniform and characteristic variety” of vernacular English (Labov 1973: 81), as illustrated by the adolescent peaks found for change in progress. In this way, studies of adolescence provide the latest insights into processes of variation and change. We illustrate this in the next section by exploring how research on adolescents in Britain has identified a particular type of language change. Second, the fact that adolescence is “both short and intense – a social hothouse” (Eckert 2000: 15–16) makes it the perfect context in which to test the limits of the relationship between language and social categories, and language and social meaning. The nature of these relationships is explored in Sections 4 and 5, respectively.

### 2.2 Dialect levelling and innovation

Much of the research on adolescent speakers in British speech communities has been concerned with adolescents’ participation in what has been termed regional dialect levelling. Williams and Kerswill (1999: 149) describe this as “a process whereby differences between regional varieties are reduced, features which make varieties distinctive disappear, and new features emerge and are adopted by speakers over a wide geographical area”. These new forms are claimed to possess greater geographical currency than traditional features and can sometimes represent the development of a set of supra-local linguistic norms that spread across geographical regions (Kerswill 2003: 224).

Kerswill and Williams’ study of Milton Keynes, a “new town” in the south of England, illustrates this process. At the time of their study, Milton Keynes was overwhelmingly comprised of incomers from different dialect areas, resulting in considerable heterogeneity amongst the adult population. The children of these incomers became the first group of native-born individuals in the new town. Kerswill and Williams (2000) investigated 10 phonological variables in the speech of these children and found that 12-year-old adolescents possessed different phonetic realisations of these variables when compared to both adults and younger children. One change occurring more broadly in the southeast of England was
fronting of the off-glide of the GOAT diphthong, giving [ʌv] or [vɹ] in place of the more traditional [su] or [vɹ]. This change was found to be advanced in the 12-year-olds, suggesting that focusing – the development of norms in patterns of linguistic behaviour – was already taking place in the speech of native-born children who grew up in Milton Keynes. The greatest effects were found in the adolescents who were at once tightly integrated into a local peer group and had access to extensive social contacts (Kerswill and Williams 2000: 94). This suggests that adolescence is not only characterised by a shift to a more peer-oriented culture (in comparison to the more home-oriented culture of young children) but it may also involve a change in social networks, and changes in forms of social integration.

Writing elsewhere on this research, Williams and Kerswill (1999) observe that some of the consonantal features identified in Milton Keynes (believed to have diffused from London) have been found in other British urban communities. These features include T-glottaling (the realisation of /t/ as [ʔ] in word-medial intervocalic position) and TH-/DH-fronting (the realisation of /θ/ as [f] and /ð/ as [v]). Williams and Kerswill not only find these features in the speech of working-class adolescents in another southern city, Reading, but also in the speech of individuals with the same demographic characteristics in a northeastern city, Hull. Other features that have been identified as “a set of ‘youth norms’ adopted by young people in many areas of Great Britain” (Williams and Kerswill 1999: 159) include labiodental /ɹ/ (the realisation of /r/ as [v] rather than as the approximant [j]; see Foulkes and Docherty 2000) and L-vocalisation, where /l/ is realised as a high back (un)rounded vowel (see Stuart-Smith 1999: 210). Kerswill (2003: 231) considers their spread to be a case of geographical diffusion, going so far as to describe T-glottaling, TH-fronting and labiodental /ɹ/ as the “torchbearers” of this process. However, explaining how these features might have diffused from south to north is not straightforward, given Britain’s well-established north–south divide, which has been described as social, linguistic and perceptual (Wales 2000, 2006; Montgomery 2006). Any diffusion account ought to be able to evidence dialect contact, at the very least, and perhaps also positive orientation to the variety from which the form has diffused. It is not yet clear how these circumstances have been met for some of the varieties in which the levelled features have been observed. This has led Britain (2009: 139) to suggest that the preponderance of these features may not be a consequence of diffusion at all. He argues that some of the levelled “youth” features are acquired early by many Anglophone children and that their increased use may be a consequence of their typologically unmarked status. This is supported by Johnson and Britain (2007), who propose that L-vocalisation is a natural development in dialects which have acquired dark /l/ in syllable rhyme contexts. Intriguingly, Beal (2010: 83) notes that dialects which lack this innovation (such as those of Newcastle and Norwich) lack the light/dark allophonic distinction.

The explanation for adolescent dialect levelling is unlikely to be simple or universal. In their analysis of the spread of TH-fronting in Glasgow, Stuart-Smith and Timmins (2010) propose a complex interaction of dialect contact, social practices, attitudes, personality and capacity to innovate. One aspect of
social practice considered in their study is media engagement. Public discourse commonly denigrates adolescent speech (Eckert 2004: 361) and blames the influence of television and the internet (as in newspaper stories such as “The teens who can barely talk”, The Daily Mail 11 January 2011); but this influence has not been evidenced in the linguistic research. This may be because it has not been comprehensively investigated. Stuart-Smith and Timmins (2010) suggest the ways in which speakers appropriate media material through their social practice may affect, or at the very least interact with, their language use. This research suggests that variationists may have to attend to media influence in the future – at least in terms of how it interacts with other forms of social practice (Stuart-Smith et al. forthcoming). This is particularly pertinent in work on adolescence, given the ever increasing use technology plays in the activities of this life stage.

Technology is not the only change experienced by present-day adolescents; recent work on dialect levelling and innovation is also exploring the changing composition of modern urban communities. A number of studies attest the use of adolescent “multiethnolects” in large multilingual cities, language varieties that are used by “several minority groups [...] collectively to express their minority status and/or as a reaction to that status to upgrade it” (Clyne 2000: 87). Multiethnolects have been identified across a range of European contexts (Kotsinas 1992; Nortier 2001; Quist 2008; Wiese 2009; Quist and Svendsen 2010; Cheshire et al. 2011; Fox et al. 2011). In their work on London English, Cheshire et al. (2008, 2011) find that non-Anglo adolescents lead in the use of variants emerging from language contact, such as the adoption of narrow diphthongs and monophthongs in the FACE, GOAT, MOUTH and PRICE vowels, while their Anglo counterparts level variants that are diffusing geographically. Most strikingly, they find that “[m]inority ethnic speakers lead innovations, regardless of which minority they belong to” (Cheshire et al. 2008: 3), and that adolescents who belong to multiethnic social networks are able to use features that may be associated with an ethnic group to which they do not belong. This is reminiscent of Rampton’s (1995) study of “crossing”, but Cheshire et al. find this systematic variation in everyday speech, not just in performance or stylised talk. They label the resulting “variety space” Multicultural London English, on the basis that “the features are only loosely associated with specific ethnicities or language backgrounds” (Cheshire et al. 2011: 190). Whether the rest of the adolescent community follows this pattern over time should motivate further research into this kind of dialect situation.

This work suggests that specific local factors may affect adolescents’ engagement in dialect levelling, and this has been reported elsewhere. For example, Watson (2006) finds that adolescents in Liverpool are increasingly diverging from the supra-local variants discussed above. His data show no evidence of the supra-local glottal realisations of /t/. Pre-pausal /t/ is instead commonly realised as [h], a widely stereotyped feature in Liverpool English. In fact, Liverpool adolescents not only avoid the supra-local form, this is increasing their use of the localised form over time. Watson suggests that they are a consequence of Liverpool’s distinctive regional identity. In reviewing this work, Beal (2010: 85) surmises that there may be little incentive for Liverpudlian adolescents to adopt /t/-glottaling when [h] already serves similar social functions in the community.
There is also evidence to show that, even if adolescents appear to be using supra-local variants, they may be using them to produce distinctively local forms of differentiation, rather than to index participation in a national “youth culture”. Llamas (2007) finds an increase in glottal stops for /t/ in her data from Middlesbrough, a city in the northeast of England. Middlesbrough adolescents thus differ from those in the nearby area of Tyneside, who have typically been more resistant to this innovation (although there is some evidence that this is beginning to change, see Watt and Milroy 1999: 29–30). Llamas argues that the Middlesbrough adolescents’ adoption of the glottal stop serves to differentiate them from the more traditional glottalised /t/ found in Tyneside. In this case, the supra-local variation is recruited to signal more local geographical distinctions.

Levelled forms have been found to mark local differentiation elsewhere. To return to the Glasgow patterns discussed above, Stuart-Smith et al. (2007) suggest that the use of TH-fronting enables working-class adolescents to reify the social divide between themselves and middle-class adults who retain the majority of the regional Scottish English forms, despite their higher levels of mobility and greater opportunity for contact with speakers of other British English varieties. Here, then, the social meaning of the diffused forms is recruited to mark local distinctions around social class status.

The work of Stuart-Smith et al. illustrates the benefits of further stratifying the adolescent category. Because work on language variation and change has focused on tracing language change across generations, adolescents are often represented as a single homogeneous category. This has been instructive for our description of the general advancement of language change, but may have inhibited our ability to explain fully the observed variation. For instance, while phonological changes typically show adolescent peaks in apparent time for women only, Tagliamonte and D’Arcy (2009) find that discourse-pragmatic and morphosyntactic (-semantic) changes show adolescent peaks for both females and males. They are unable to explain this difference because, as they themselves observe, that would require researchers to “move deeper into the speech community and attempt to understand the contribution of individuals” (Tagliamonte and D’Arcy 2009: 98). Likewise, the British research on dialect levelling reveals a number of cross-community similarities, but the source and meaning of these innovations has yet to be fully established for many of the adolescent communities studied. Understanding why adolescents lead change requires that we take a more fine-grained view of this life stage. In the next section we show how, in attempting to explain the role of adolescents in language variation and change, this research has produced a more nuanced approach to the social categories considered in variationist analyses.

3 Adolescence and Social Categorisation

While we have been inured to think about adolescents leading language change, the reality is that only a subset typically advances change. This has been shown most clearly in Eckert’s extensive work on the Detroit adolescents of Belten High School (see, for instance, Eckert 1989, 2000, 2009a). Eckert’s work shows how two
distinct adolescent communities of practice, the “jocks” and the “burnouts”, engage with the Northern Cities Shift (a vowel shift in the US that involves all the mid and low vowels). The jocks and the burnouts represent middle-class and working-class cultures, respectively, and their language behaviour reflects this difference. The three latest sound changes in Detroit are the backing of DRESS to ʌ, the backing of STRUT to ɔ, and the raising and the backing of the nucleus of the PRICE diphthong to ɔ. Eckert shows that the burnouts lead the jocks in all three of these sound changes. She argues that this is a consequence of the urban orientation of the burnouts, which simultaneously brings them into contact with these urban variants and provides their motivation to acquire them.

The ethnography behind Eckert’s analysis provides a view on variation that would be difficult to uncover using other methods. It enables her to make more nuanced observations about the relationship between language, structural factors such as class and gender, and community of practice (CoP) membership. A CoP is “an aggregate of people who come together around mutual engagement in an endeavour” and is “defined simultaneously by its membership and by the practice in which that membership engages” (Eckert and McConnell-Ginet 1992: 464). It captures the site at which individuals experience more abstract social categorisations. For instance, while Eckert notes the class orientations of the jock and burnout groups, she is at pains to stress that these categorisations do not always determine how individuals engage socially – some burnouts have middle-class parents and, likewise, some jocks have working-class roots. This is no small point in the context of our discussion of adolescence – Eckert (2009a: 138) argues that the correlation between adolescents’ language and their parents’ socioeconomic class is less robust than the correlation between children and their parents. She suggests that this is a consequence of the range of potential influences available to adolescents (such as neighbourhoods, peers and heterogeneous school networks).

Perhaps the most significant implication of Eckert’s work is its demonstration that adolescents seek to differentiate themselves from each other, and not just from the adjacent life stages of adulthood and childhood. Jock girls are distinguishable from jock boys by lagging in their raising and backing of the nucleus of PRICE, but they are most distinct from the burnout girls. This suggests a complex interaction between class, gender and social practice. Eckert’s study shows that it is not adolescents who lead language change, but particular groups of adolescents whose innovations reflect their pursuit of social differentiation. In addition to refining our understanding of exactly who leads linguistic change, Eckert’s work sets a new standard for the description of social differentiation. Her work at Belten High shows how gender and class are locally experienced, but her more recent work has focused upon the situated nature of ethnicity (Eckert 2008a). While research on adult populations has tended to treat ethnic categories as homogeneous, recent work on adolescent communities illustrates the kind of intra-group diversity already shown for other forms of social categorisation. In this way, work on adolescence is expanding our understanding of sociolinguistic heterogeneity. We exemplify this in the following section by focusing upon variation in ethnically complex adolescent groups.
3.1 Ethnic diversity

Practice-based approaches have featured widely in research on adolescent ethnic groups. Mendoza-Denton’s (1996, 2008) study of Latina girl gangs in California focused upon two communities of practice, the Norteñas and the Sureñas. She found that more central gang members produced more raised realisations of the KIT vowel /ɪ/, regardless of their specific CofP membership. While this feature clearly reflects and construes the shared ethnic identity of these girls, Mendoza-Denton shows that these girls construct quite distinct social identities. Whereas the Norteñas’ practices situate them as bicultural and modern, the Sureñas’ practices situate them as traditionally Mexican. Consequently, the meanings associated with raised /ɪ/ shift according to the specific Latina style in which the variant occurs. Because of her focus on social practice, Mendoza-Denton is able to show that shared ethnicity does not necessarily result in a homogeneous adolescent style.

Alam’s study of adolescent Scottish Pakistani girls represents the first CofP study of an ethnic minority population in Britain (Alam 2007; Alam and Stuart-Smith 2011). Alam conducted a three-year ethnography in a high school during which she observed the social practices of Glaswegian girls of Pakistani heritage. Her analysis concentrates on the realisation of syllable-initial /t/, which has a highly stereotyped realisation in British Asian English as retroflex or postalveolar (Lambert et al. 2007; Kirkham 2011a; Sharma and Sankaran 2011). Based on detailed ethnographic fieldwork, she identified a number of communities of practice for the Pakistani girls, including the “conservatives” (who wear headscarves and adhere to traditional Pakistani values), the “moderns” (who wear trendy clothing and engage in more daring behaviour, but still within the boundaries of community standards) and the “messabouts” (who engage in risky social practices, such as drinking and swearing). Alam finds that the concentration of spectral energy in syllable-initial /t/ closely patterns with CofP membership and that this fine-grained variation is used in order to signal local ethnic identities. Her analysis highlights a range of intra-ethnic variation that is often erased from studies of sociolinguistic variation. In doing so, it demonstrates the rewards to be gained from carrying out ethnographic fieldwork with adolescent communities and reveals the extent to which adolescents use fine phonetic detail to communicate social information.

Mendoza-Denton and Alam focus on ethnic minority communities in contexts where the groups make up a significant proportion of the school population. In both cases, the peer networks within the school are largely replicated outside the school. This is unsurprising given the traditional correspondence in demographic make-up between schools and neighbourhoods. However, educational trends, in Britain at least, point towards a weakening of the link between the demographics of the school and the surrounding neighbourhood, with the majority of children no longer attending the school nearest to their home (Allen 2007). Kirkham’s (2013) research in a multiethnic high school explores what happens when neighbourhood peer groups are not replicated in the school. His ethnographic fieldwork
was conducted at a school in an affluent area of Sheffield (a city in the north of England), but the school admits a diverse mix of children from across the city. This results in a high proportion of ethnic minority adolescents, with the main ethnic groups in the school being of White British, Pakistani, Somali, African Caribbean and Yemeni heritage. The school thus exemplifies what happens at the boundaries of social and ethnic contact, and provides a social context for studying ethnicity as a relational construct. Kirkham conducts detailed acoustic analysis of word-initial /t/ and the happy vowel /ɪ/ in order to demonstrate how different phonetic variables can be used to index different types of affiliations. These range from locally oriented friendship groups to broader demographic categories, including ethnicity. Kirkham demonstrates that understanding the relationship between phonetic variation and ethnicity depends on our ability to understand the social structure of the community under study and the relations between social groups.

The studies discussed in this section illustrate how research into adolescence is leading our understanding of the nature of the relationship between language and forms of social categorisation. In particular, they suggest a distinction between structurally constrained variation and stylistic adaptation. Both Alam and Kirkham find correlations between /t/ realisation and ethnicity, but this variation is differently construed by Pakistani speakers in Glasgow and Sheffield due to the differing relationships between the Pakistani and host communities. This kind of research on adolescence shows how the linguistic-geographical make-up of a community exerts considerable influence on available social meanings. The following section expands on these findings further by addressing the ways in which other social meanings are locally construed and negotiated in adolescent communities.

4 Adolescence and Social Meaning

Research on adolescent language variation and change has shown links to particular kinds of linguistic behaviour that typify the innovation and rebellion of this life stage. However, the previous section has shown that adolescence – like any other social grouping – is a simplification, which erases diversity of experience. So, while some adolescents are rebellious, others are incredibly conventional; and while some may enthusiastically drive innovation, others may simply be caught up in the relentless “logistic incrementation of linguistic change” (Tagliamonte and D’Arcy 2009: 70).

As implied in Section 3.1, how adolescents engage with linguistic variation is likely a combination of their location in the social order and their response to the freedom and constraints duly imposed upon them. This has been shown by Moore (2010), who considers how nonstandard were (the use of were in first and third singular contexts, for example, it weren’t that bad) is distributed amongst adolescent girls in a high school in Bolton, a northwest British town. Moore considers
how the form correlates with a number of social factors: CofP, self-identification, social class and parental place of birth. Four communities of practice were identified: the “populars” (who were anti-school, sporty yet feminine, and moderately rebellious); the “townies” (who emerged from the popular group but exhibited a more extreme anti-school attitude and engaged in more risky social activities); the “geeks” (who were institutionally orientated and conformist); and the Eden Village girls (who were also institutionally orientated and named after their desirable home area). The most robust correlation was between CofP and nonstandard *were*, confirming Eckert’s (2009a: 138) observation that the correlation between adolescents’ language and their parents’ social status is less robust than many survey studies have implied. However, Moore shows that adolescents are variably constrained by their social backgrounds, depending upon the specifics of their life experience. So, while there is no interaction between social class and the townie, popular or geek communities of practice, there is a strong interaction between social class and the Eden Village CofP. All but one of the Eden Village girls live in the prestigious locale after which their CofP is named. The village is a three-mile bus journey from their school (the majority of the other kids live within walking distance) and is a highly desirable and expensive place to live. Its population includes aspirational Boltonians who have moved there from other districts and wealthy incomers who have been drawn by the desirability of an elite home address. This means that the Eden Village girls’ social engagements are largely limited to high status networks, which simultaneously isolate them from their school peers and constrain their conservative, near-categorical use of standard *was*. The social and linguistic behaviour of the other girls is less constrained because they do not experience the same sociocultural and geographical isolation. In fact, of the four townie girls, two are in the higher social class in the sample and still use very high frequencies of nonstandard *were*.

The townies’ use of a local nonstandard form, irrespective of their social class status, suggests that the social meaning of nonstandard *were* may transcend its local class associations. In using this variant as a component of their unique sociolinguistic style, the townies not only exploit its historical associations, but they also construct more contemporary meanings for the feature which index the wild and rebellious social practices in which they engage. That adolescents, in particular, use nonstandard *were* to reflect their social practices, may serve to ensure the feature’s robust “sociolinguistic vitality” (Schilling-Estes and Wolfram 1994: 298) in the face of competing forms.

Moore’s (2010) work suggests that, while adolescents may innovate by leading linguistic change, they may also innovate by expanding the social meanings associated with established linguistic variants. Understanding the social meaning of linguistic features is essential to explaining patterns of variation, but it is also necessary if we are truly to understand human language capabilities. As Moore (2011: 228) and Eckert (2012) point out, linguists interested in acquisition and psycholinguistic processing are now beginning to explore the constraints on variation, and variationists have a role to play in elaborating the social contexts of that variation. If variationists claim to explore the relationship between language
and its social correlates, then the question of what counts as “social meaning” must be tackled by those working in the field – a point which is now well established (Silverstein 2003; Eckert 2008b; Woolard 2008).

Those concerned with adolescent language are well placed to explore the granularity of social meaning, given that adolescents have been found to exploit every kind of linguistic innovation. In previous sections, adolescents have been shown to use linguistic features to index structural demographic social types associated with class, gender, ethnicity and geography; or personae associated with local social practice (jocks, burnouts, townies). Other research has illustrated how adolescents may also use language to index more fleeting social identity processes such as stance. These micro-level meanings are implicit in much of the work we have already discussed. For instance, Eckert (2008b: 459) notes that the “burned-out burnout” girls (a group of burnouts who are even wilder than the regular burnouts) lead in all of the Northern Cities Shift urban variables and in a well-known grammatical variable, negative concord. Because boys generally lead in the use of negative concord (in Belten High and elsewhere), it is tempting to assume that the burned-out burnout girls are trying to “talk like boys”. However, Eckert notes that these girls engage in feminine practices as well as participating in other female-led changes. She argues that their use of negative concord reflects their urban engagement and its social associations, such as danger and diversity. In this sense, their use of negative concord simultaneously reflects their stance towards the urban environment and expands the social meanings signalled by negative concord.

Stance has been construed in a number of ways in sociolinguistic work (see Jaffe 2009), but it tends to be used to refer to a form of evaluation. This evaluation may be enacted through social orientation (as in the Eckert example) or via an expression of affect or personal alignment. In an exploration of Scottish working class adolescents from a Glasgow high school, Lawson (2009, 2011) shows that phonetic features can align boys with anti-establishment behaviour. The boys most stereotypically associated with a violent counter-culture, the “neds”, tend to make greater use of vernacular features such as TH-fronting. However, they are not the exclusive users of this variant and Lawson argues that its occurrence in other speech styles is a consequence of how it can be used to index personal alignment to status (in particular whether or not one is perceived as “posh”) or the establishment. The use of other variants may be more subtle. The phonetic variable CAT (equivalent to the TRAP/BATH/PALM set in other varieties of English) shows a range of variants across the communities of practice studied, but the extremes of behaviour are embodied by the neds, who tend to lower and front CAT, and the “schoolies”, who have more raised articulations. However, when these tokens occur in discourse with a negative affect (primarily associated with violence), these patterns seem to be reversed: the neds’ variants are more retracted and the schoolies’ more fronted. The patterns are rather tenuous and Lawson (2009: 358–368) is circumspect about their significance; however, they imply that the schoolies may be using fronted tokens of CAT to perform a more violent stance, which is not generally reflected in their actual social behaviour.
While studies of stance have largely focused on L1 speech, work on speakers’ second languages has also been revealing. Rindal (2010) finds that Norwegian adolescent learners of English attribute different social meanings to American and British varieties of English and that they exploit these meanings for particular social affect. Students often used more American English variants in peer conversations and more British English variants in reading word lists, reflecting their perception of different levels of formality and the prototypical stances associated with each variety. Nance’s (2013) study of adolescents in a Scottish Gaelic medium high school in Glasgow also uncovers stylistic uses of a second language. She finds that the Glaswegian adolescents exclusively use English, not Gaelic, as a peer group language, but that social practice differences are nonetheless present in their Gaelic pronunciations. For example, the anti-school adolescents display more fronted productions of /u/ in their Gaelic than pro-school adolescents, illustrating the novel finding that non-peer group language can still be used to mark peer group distinctions.

Providing evidence of stance-taking is more difficult than charting a correlation between a social category and a linguistic feature, and researchers using adolescent case studies have been instrumental in developing new ways to access these social meanings. Some researchers have used perceptual experiments to uncover the stance-related meanings associated with linguistic features. In a sociophonetic ethnography of New Zealand high school girls, Drager (2009) finds that listeners are able to identify whether the speaker ate lunch in the school common room or not depending on whether the experimental stimulus featured a voice they recognised and/or contained a token of quotative *be like* that had a monophthongal vowel. Drager argues that listeners are responding to speakers’ exploitation of the social meaning associated with this feature. The girls who do not eat lunch in the common room are separated into different groups (such as goths and geeks) and, while the overall styles of these groups are different from one another, their shared productions of quotative *like* reflect their stance towards a group of girls they mutually oppose: those who eat lunch in the common room.

In recent years, several studies have traced language change in the British and North American English quotative systems (see, for instance, Tagliamonte and D’Arcy 2004; Buchstaller 2006; Rickford et al. 2007). This work has focused on adolescents’ innovative use of *be like* and *be all* in place of more traditional forms such as *say* or *go*. Buchstaller (2006) has demonstrated that, while *be like* is globally perceived as “young”, listeners in different locales (Britain and the US) associate the form with different gender, personality and geo-spatial traits. This implies that quotatives can be used to enact different stances depending upon the local styles in which they occur – something that has been illustrated by Bucholtz (2011: 101–115) in her analysis of students from a San Francisco Bay area high school. Rather than using perception experiments, Bucholtz uses fine-grained discourse analysis to identify the social meanings articulated by these forms in interaction. Her study shows that *be all* occurs most frequently in the speech of “preppy” girls. These girls tended to use the form to articulate a neutral stance (that is, one which did not index a strongly affective stance to the reported talk). However, when this
form occurred in the talk of other social groups in the school, it most frequently signalled a negative stance towards the speech being quoted. Bucholtz argues that this is because *be all* is associated with a preppy identity, which, in turn, is perceived as being excessively evaluative. Thus, in using *be all* to express a negative stance, the non-preppy kids are drawing upon the association between the quotative form and the stereotypical preppy persona.

Bucholtz’s work reveals that different levels of social meaning (social type, persona and stance) are interconnected. Research on adolescent speakers has made use of Silverstein’s (1976, 1998, 2003) notion of indexical orders to understand these connections. Silverstein argues that social meanings are constructed as speakers rationalise correlations between linguistic features and competing social meanings. The interpretative process occurs when a correlation of some sort (for instance, that between burnouts and negative concord) is ideologically reinterpreted (such that the social practice of the burnouts associated with rebelliousness leads to that association for negative concord, for instance). There has been a tendency to imply that indexical orders at the level of social category are indexically superior, but Silverstein (1998: 128–129) claims that there is no absolute or prior indexical order. Any correlation (be it at the level of stance, persona or social type) can be ideologically reinterpreted to generate social meaning at a different level.

This has been shown using data from the Bolton adolescents described earlier (Moore 2010). Moore and Podesva (2009) show the range of social meanings that can be assigned to a grammatically complex discourse item, the tag question. Quantitative analysis revealed two key discourse properties that were similar or identical across the townie, popular, geek and Eden Village communities of practice: all groups use tag questions at the end of turns the majority of the time, and interlocutors most frequently expressed agreement with tags which occurred at the end of speakers’ turns. Drawing upon previous research on the syntax and semantics of tag questions (such as Hudson 1975 and Kimps 2007), Moore and Podesva (2009) argue that tag questions are conducive – given that their discourse placement encourages the hearer to agree with a proposition. However, by analysing variations in discourse structure, the various grammatical constructions of tag questions (whether or not they occur with standard or nonstandard phonology and morphosyntax) and the topics their structure is used to convey, Moore and Podesva show that this conducive function can be operationalised to express a number of different stances, personae and social types. For instance, the tags used by populars are moderately nonstandard in design and predominantly occur in discussions of in- and out-group status. This enables them to articulate rather evaluative and critical stances. On the other hand, the Eden Village tags tend to occur in grammatically standard, highly interactive discourse (their tags most frequently resulted in agreement, and this agreement most frequently occurred during overlap of the tag itself); they therefore convey more collective, inclusive stances. Moore and Podesva go on to demonstrate that these stances can come to index both personae and social types. For instance, the frequency with which the populars used tag questions (much higher than the other communities of practice) allowed their peers to identify these features as a key component of their linguistic
style. In this way, the popular persona itself was recognised as a higher-level indexical association. Other ideological associations were made at the level of social type. While all girls in the study unambiguously classified themselves as female, the Eden Village girls explicitly referred to themselves as “girly girls” and their ultra-collaborative style may have also allowed their specific flavour of tag to be ideologically interpreted as “female”. Via the quantitative and qualitative analysis of the tag question, Moore and Podesva show the full extent of its social potential, incorporating stance, persona and social type, and filling out a comprehensive “indexical field” (Eckert 2008b) for this feature.

This section has demonstrated that researchers working on adolescent datasets have been in the vanguard of work on the social meaning of linguistic variation. In particular, this work has illustrated how perceptual experiments and discourse analysis can expand our understanding of the social meanings associated with language features. This work identifies interactional meanings associated with stance, and is at its most powerful when combined with traditional quantitative analysis which identifies correlations between linguistic variants and social group identities.

5 Future Directions

Research on adolescence has identified the importance of this life stage in processes of variation and change. It has also advanced our understanding of the stylistic capabilities of language users and the socio-indexical potential of variation. As Eckert (2003) has noted, future work would do well to apply the approaches developed in recent adolescent research to individuals of all ages and social backgrounds. Used alongside traditional variationist techniques, these approaches will continue to expand our understanding of the relationship between language and agency, identity, style, indexicality and forms of social categorisation.

To understand more about the dynamics of adolescence itself, further research on the transitions into, through, and out of this life stage would be illuminating. Some work along these lines is already in progress. Eckert’s (2008a, 2009b) research on preadolescence tracks the emergence of social distinctions in this age group. Hilton’s (2010) work on Hønefoss Norwegian examines the effect of adolescents’ progression through local and regional schools on language ideology and usage. Wagner’s (2008) longitudinal study of high school girls in Philadelphia examines the linguistic correlates of the transition from adolescence to young adulthood. Recent studies also examine the accent changes that accompany young adults’ participation in new institutions, such as higher education (Evans and Iverson 2007), as well as the dynamics of sociolinguistic meaning in higher education communities (Kirkham 2011b). These are just a few examples, but there exists ample scope for development.

Research to date has demonstrated that adolescents are the leaders in sound change, as well as being heavily engaged in processes of constructing social meaning. However, there is still much to learn. For instance, more work is needed
to explore how adolescents use innovative variants in order to construct particular stances in the communities under study. Is the same supra-local feature used in similar ways in different communities? How are supra-local and/or geographically specific meanings negotiated in interaction? Addressing these questions will require that a more extensive range of adolescent communities are considered. Given the way in which adolescent research has already shaped the variationist enterprise, this future work will undoubtedly play a key role in determining the future of our discipline.

NOTES

1 This is not to say that adolescence is unique to heavily institutionalised or industrialised cultures. Bucholtz (2002) notes that similar categories occur across a range of cultures.
2 Throughout this chapter we make reference to vocalic variables using Wells’ (1982) lexical sets.
3 If forms of social stratification are not identical across life stages, then we might question the reliability of approaches to social stratification that imply uniformity of social experience across time.

REFERENCES


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Somerville, Leah H., Hare, Todd, and Casey, B.J. (2011) Frontostriatal maturation predicts cognitive control
After five decades of research on language variation, we have discovered certain patterns that recur with sufficient regularity as to form empirical expectations. When we plot dependent linguistic variables against their independent social correlates, the resulting configuration is more or less predictable. The configurations are regular enough that sociolinguists have come to recognize that departures from these patterns require – perhaps demand – further explanation. Usually the departures reveal overlapping independent variables that are disrupting the pattern and lead to more nuanced analyses.

In this chapter, I illustrate some of these patterns and discuss their implications. As illustrations, I have tried to select case studies that are prototypical, that is, as close to “pure” examples as I can find. As befits a social science, these cases are rooted in times and places, but I have tried to emphasize their general properties as far as possible, seeking the broader implications that underlie the cases.

An ancillary theme of the chapter involves the creative uses of these partly predictable patterns. Individuals and sub-groups disrupt the norms in order to establish their own social space. These acts of identity (as discussed by Kiesling, this volume) gain salience largely by their “distance” from the sociolinguistic baseline.

1 Change Entails Variation But Not Vice Versa

Language change is one type of linguistic variation, with particular social properties. However, linguistic variation does not necessarily entail change. This insight was
first expressed in one of the seminal documents of variation theory, as Weinreich, Labov, and Herzog’s third postulate for a theory of language change (1968: 188): “Not all variability and heterogeneity in language structure involves change, but all change involves variability and heterogeneity.” In Guy’s terms (2011: 179), “Change is not the inevitable outcome of variation; certain sociolinguistic variables, such as the –in/ing alternation in English (alternations like running – runnin’), appear to have existed for many centuries without one form completely supplanting the other.”

The essential social function of linguistic variables is to mark group membership either broadly or narrowly. Age is one of the three overriding social categories in modern industrialized societies, along with social class and sex, and it is the social attribute that is the primary correlate of language change (as discussed in Section 6 below). Correlations of linguistic variants with the social class and the sex of speakers are not necessarily associated with language change, though members of one social class or one sex are often leaders of the age cohort in the vanguard of the change.

In the sections that follow, I first discuss stable variables, that is, variables that are not undergoing change in their communities. Their primary social correlates are social class (Sections 2–4) and sex (Section 5). After that (Sections 6–11), I discuss variables that are undergoing change, with age as the primary social correlate. I have chosen variables that are relatively well behaved intending them to serve as benchmarks of variation and change.

2 Phonological Variables Tend to Be Socially Diffuse

In every community that has been studied so far, sociolinguists have found that phonological variables tend to be distributed throughout the population, regardless of social class or other attributes. That is, in communities in which a phonological variable is active, people in all social strata are likely to use more than one variant in certain circumstances. Use of the variants is typically graded so that middle-class people use particular variants less frequently than working-class people and under more constrained circumstances, usually in casual settings with intimate participants. As a result, the accents of the social groups differ quantitatively but not qualitatively.

A prototypical instance of a diffusely distributed phonological variable is glottal stop [ʔ] as a variant of /t/ in post-tonic position in Scotland and northern England, in words like butter, batting, Betty, forty, fitting and football. The situation I describe here pertains to Glasgow in the 1970s (Macaulay 1977); since then, glottal stop has undergone rapid change so that it is no longer either stable or socially restricted (Stuart-Smith et al. 2007).

In the 1970s, Macaulay noted that in Glasgow the glottal stop was “the most openly stigmatised feature” (1977: 47) and the one “most frequently singled out
by teachers as characteristic of a Glasgow accent” (1977: 45). Ironically, the fact that it was the most characteristic feature did not stop people from complaining about it, that is, it did not stop them from making it the most stigmatized feature and, equally ironically, the fact that it was most stigmatized did not stop it from spreading in the community.

Figure 14.1, based on Macaulay’s work (1977: 47, Table 16), provides empirical support for the teachers’ impression of the glottal stop as characteristic of the Glasgow accent by showing that it occurs in the speech of all social classes, including the middle middle class (MMC). Figure 14.1 also shows that it is stable, as indicated by the level lines linking the adults and the 15-year-olds in each of the classes. Its use, at the time, was neither declining nor increasing in the speech of the young people as compared to their elders, but was staying about the same.

The effect of stigmatization is indicated by the enormous gap between the MMC and the two working-class groups, the upper working class (UWC) and the lower working class (LWC) – about 70 percentage points. Clearly, what differentiates working-class (WC) speech from middle-class (MC) speech in Glasgow is not the presence or absence of the glottal stop variant but its frequency. There is also a gap between the two WC groups, though a much less dramatic one at about 10 percent. The social classes arrange themselves hierarchically with the frequency of glottal stop variants decreasing up the social scale.
3 Speech Communities Share Evaluations, Not Usage

Membership in the Glasgow speech community entails using the glottal stop variant sometimes, regardless of social status, but there is clearly much more to it than that. It also entails a speaker’s tacit knowledge of the frequency that is appropriate to one’s social status, and this awareness serves both as a regulator of one’s own usage and as an evaluator of the usage of others. The “sociolinguistic monitor,” our innate capacity for producing fine-grained patterns of linguistic variation in our own speech and for evaluating them in the speech of others (Labov et al. 2011; Campbell-Kibler 2008), is an irrepresible, though largely subconscious, attribute of our communicative competence.

Despite the use of the glottal stop across the social spectrum, Glaswegians of all classes share the opinion that the glottal stop is “unattractive” (Macaulay 1977: 112). The fact that it is heard very frequently in working-class speech does not imply that working-class people approve of its use: middle-class and working-class subjects are in agreement about its social evaluation. One of Macaulay’s working-class men told him, “We didn’t expect people to speak as we did after we heard the school teachers. . . . You did grow up with a sense that what you were speaking was regarded as inferior” (1977: 107).

Accents and dialects differ in every complex community, but the social evaluation of the variability is shared. Labov first discovered this situation in New York, and he was led to conclude that “the speech community is not defined by any marked agreement in the use of language elements, so much as by participation in a set of shared norms; these norms may be observed in overt types of evaluative behavior, and by the uniformity of abstract patterns of variation which are invariant in respect to certain levels of usage” (1972: 120–121).

Put plainly, the speech community is not defined by the simplistic notion that people speak the same, but by the more abstract notion that they evaluate communal linguistic variation similarly. Groups and individuals reflect the communal norms in complex ways, with subtly different mixes of concord and conflict (Rickford 1986). In time, the communal evaluation of norms can shift too, as it has, for instance, in “the disappearing stigma of t-glottaling” (Fabricius 2002). Changes in usage and shifts in norms make us, as Eckert (2000: 43) says, “agents in the continual construction and reproduction of the [sociolinguistic] system.” Membership is determined by consensus about community norms and not by uniformity in their use, thus affording people the latitude to express their diversity within communities.

4 Grammatical Variables Tend to Be Class Markers

Grammatical variables are much more likely to be absolute markers of group membership than phonological variables. This is especially true of grammatical
features that are stigmatized, that is, features that are subject to overt comment in the community and are “corrected” by teachers and parents when they are used in social settings where standard speech is expected.

Multiple negation is a stigmatized grammatical feature, and as such we expect it to be sharply stratified in its social distribution. Grammatically, Standard English stipulates one negative marker in each clause, but varieties other than the standard sometimes mark negation on indefinite nominals as well. The difference results in variants like these:

**Standard (single) negation**  
It isn’t anybody’s business.  
Nobody tells us anything.

**Multiple negation**  
It isn’t nobody’s business.  
Nobody don’t tell us nothing.

The social patterning of multiple negatives is nicely illustrated in Feagin’s meticulous study of Anniston, Alabama, a small city surrounded by farmland in the southern United States. Figure 14.2 (based on Feagin 1979: 232, Table 8.13) shows the use of multiple negatives by three social groups, two of them WC, one urban and the other rural, and the other “Upper Class,” Feagin’s blanket term for managers, owners, and other white-collar citizens.

Figure 14.2 shows that in both WC groups multiple negation is frequent (74.9 percent and 81.3 percent). By contrast, in the speech of their “Upper Class” neighbours, multiple negation is negligible. The miniscule proportion (1.1 percent, four occurrences in 343 negative sentences) is even less salient than it appears because the instances in the “Upper Class” data all co-occur with hardly (as in We don’t hardly go there nowadays) and, moreover, all occur in the speech of teenagers. The

![Figure 14.2](image-url)  
**Figure 14.2**  
Multiple negatives used by three social classes in Anniston, Alabama.  
specificity of both the structural and social contexts suggests that there is a grammatical subtlety involving the adverb hardly that is acquired late by a few middle-class youngsters. Clearly the social distribution of multiple negation sharply stratifies the social classes. The upper stratum of the social continuum, represented here by Feagin's "Upper Class," almost never use multiple negatives. Working-class dialects, represented here in urban and rural varieties, use them robustly. This social distribution in Anniston reflects the global situation for this grammatical variable, in which multiple negatives are eschewed in all Standard English varieties but persist in nonstandard varieties (discussed at length in Chambers 2012).

The prevailing evaluation of multiple negatives provides a telling case study of the capriciousness of our grammatical conventions. Historically, multiple negatives were once the norm. "The rise of single negation," according to Nevalainen (2006: 261), "can be traced back to fifteenth-century upper-rank professional writers." In the six centuries since then, multiple negatives lost their currency as single negation grew in favor. Multiple negatives became rarer in the speech of the educated classes, and ultimately they were declared ungrammatical by teachers and other arbiters of speech. The social distribution of multiple negation exemplified in Anniston, Alabama, represents the contemporary distribution of the grammatical form, which has become the norm in all national varieties. For our purposes, the main point lies in the difference between the social distribution of this grammatical variable and the phonological variable in the preceding section. Whereas nearly everyone in the community sometimes uses nonstandard phonology, the grammatical variable stratifies the community categorically, so that it serves as a linguistic marker of class membership.

5 Women Use Fewer Nonstandard Variants than Men

Within the class norms, sociolinguistic research has discovered that women use fewer stigmatized and nonstandard variants than do men of the same social group in the same circumstances (as summarized by Eckert 1989; Chambers 2009: 116–158). Consequently, speech communities are marked by consistent and, as we shall see, partly predictable linguistic correlations with sex.

Looking again at multiple negation, this time in the African-American vernacular of inner-city Detroit, we recognize in Figure 14.3 (based on Shuy 1969) the expected class-based pattern. In inner-city Detroit, as in Anniston and every other contemporary community, the frequency of multiple negation increases as we move down the social hierarchy from upper middle class (UMC) to lower working class (LWC). We saw that in Anniston multiple negation is virtually nonexistent in middle-class speech, but in inner-city Detroit there is a trace of it in both middle-class groups. Significantly, when it occurs in these higher classes, it is restricted to the speech of the men.
Not only is the class-based pattern systematic in Figure 14.3, but there is also a systematic sex-based pattern. In each social class, the men have higher scores than the women. In the highest class (UMC), the men are the only ones who use multiple negation, and in the other MC group the women score very low (under 2 percent) but the men in the same class score much higher. In the WC groups, the scores are high for both women and men, but the men always have higher frequencies than the women. The pattern of sex-differentiation holds robustly.

The women’s speech in this respect follows the typical pattern for sociolinguistic sex differentiation. In every social class, the men use the nonstandard variant more frequently than the women. In WC speech, the norms are much higher, and females as well as males show dramatic increases. Nevertheless, the pattern holds, with women using significantly fewer instances of the nonstandard variant than the men in their social class – the men, that is, who are their husbands, brothers, and neighbors.

This generalization has been expressed in many ways. Wolfram, in a comprehensive study of the same Detroit community, found consistent sex-correlations for this variable and several others, leading him to conclude: “Within each social class it is observed that females generally approximate the standard English norm more than males do” (1969: 215). Labov came to the general conclusion that “women . . . are more sensitive than men to the prestige pattern” (1972: 243). Milroy and Gordon (2003: 103) make the same point with slightly different emphasis: “Women seem very generally to prefer supra-local variants, which may or
may not be identifiable as prestigious; ... men appear to favor localized variants, which are often stigmatized.” Holmes (1997: 132) says, “women are stylistically more flexible and tend to develop a wider linguistic repertoire than men.” Stylistic flexibility brings social dividends, as Moore (2011: 224) observes: “females may make more use of symbolic resources in their identity construction than males do,” so that WC girls, for instance, differentiate themselves from MC girls more sharply than do boys in the same classes.

Other things being equal, this sex-differentiation is the expected result in all normal situations. For instance, the sociolinguistic setting for Glasgow glottal stop, discussed in Section 2, shares certain essential properties of Detroit multiple negation: both are class-based variables, sharply stratified, with the nonstandard variant stigmatized. We therefore expect to find that Glasgow glottal stop is sex-correlated within the class divisions. Figure 14.4 bears out that expectation. There is an important difference in that the Glasgow variable is phonological, not grammatical, and as a result we expect the frequencies to be distributed more diffusely. But the overriding expectation will be to find that the females in each class use the nonstandard variant less than the males.

The Glasgow results are slightly complicated by the need to represent two age groups in each social class, which are then partitioned further into females and males. The Glasgow class stratification observed in Figure 14.1 above is here decompressed, so to speak, into its male and female constituents, but it is no less visible in the squat bars for MMC contrasted to the towers for both UWC and LWC.

![Figure 14.4](image-url)

Figure 14.4 Glottal stops by male and female adults and 15-year-olds in three social classes in Glasgow.
Source: Macaulay (1977: 47, Table 16).
Within the class stratification, we can see the expected sex stratification. The adult women and men, indicated by the left-hand bars in each social class, exhibit the expected relation exactly as did the adult women and men in inner-city Detroit, with the women in each social class scoring lower than the males. The 15-year-olds in all social classes show the sex-correlation but show it less obviously, with nearly equal scores for girls and boys in two of the three classes (24.8 to 25 in MMC, 94.1 to 95.6 in LWC), suggesting that adult patterns are still emerging in the mid-teens. Nevertheless, in all three classes the trend runs exactly as expected.

The female–male discrepancy with respect to nonstandard variants is so firmly established after decades of research that it can serve as a sociolinguistic lemma, in the sense of an empirical expectation that stimulates further investigation into situations that fail to meet it. It is used this way, in effect, by Milroy et al. (1994), for unraveling a phonologically complex pattern of glottal substitution for post-tonic /t/ in northern England, where they ultimately discover that the female–male patterns are mitigated by the fact that females, when they use nonstandard variants, tend to use a different variant from the one used by the males. This result is another instance of the greater stylistic flexibility of females mentioned earlier.

Why the female–male discrepancy exists has been subject to continual investigation and considerable speculation (see, for example, Trudgill 1972; Eckert 1989; Romaine 2005; Labov 2010: 197–202; summarized in Chambers 2009: 136–146). Early explanations tended to attribute the differences to some sort of overcompensation on the part of women, as hypercorrection or status self-consciousness. Such explanations presume that men represent the sociolinguistic norm, and women depart from it. Objectively, however, it appears rather that women have a sociolinguistic advantage over men in their command of variants and stylistic adaptability.

A more plausible avenue might attribute the difference to the assignment of gender roles, the sociocultural division of labor for females and males. In nearly all working-class enclaves, women tend to be more mobile than men, working outside the community in interactive positions as clerks, tellers, or office cleaners, and in these settings it is women rather than men who tend to speak for the family in meetings with teachers, landlords, and bank managers. It is also in these communities where the female/male sociolinguistic discrepancy is greatest. However, gender-role differences cannot be the whole explanation because the female sociolinguistic advantage also persists in societies in which there is no clear distinction in gender mobility, as in the middle classes in virtually all modern, industrialized Western societies.

Rather than gender-based, the difference appears to be sex-based (Chambers 2009: 136–151; Labov 2001: 275–279), an aspect of what Pinker calls (2002: 433) “women’s keener social intelligence.” As such, the sociolinguistic advantage appears to be one more manifestation of women’s statistical edge in all kinds of verbal tasks, including fluency, sentence complexity, listening comprehension, vocabulary, and spelling. From this perspective, it is no accident that in societies in which gender roles are sharply differentiated it is the women who take on the
main linguistic responsibilities. It follows from their inherent sociolinguistic advantage, so that sociolinguistic competence determines gender roles rather than vice versa. Because the female–male differences are rooted in sexual dimorphism (Kimura 1987; López 2001), it is not at all surprising that sociolinguists have discovered them in all kinds of social settings and diverse cultures. (See Queen, this volume, for a social constructionist view of sex-based language differences.]

As with all sociolinguistic patterns, sex-based variability provides a baseline that can be exploited. Groups and individuals depart from it in highly creative ways to express subtle social gradations of gender, sexuality and sexual identity (Queen in this volume). Miyazaki (2002) shows that grade 7 schoolgirls in a Tokyo suburb cluster into groups ranked by their teachers as gehin (“vulgar”) or, at the opposite pole, “studious,” and the gradation correlates with the use by the gehin girls of first-person pronouns considered masculine (ore/boku) that are avoided by the studious girls. Bucholtz (2001) shows that “nerd” girls in a California high school mark their social space by a number of subtle linguistic variants such as released /t/ word-finally, a “refined” feature, where their classmates usually have it unreleased. Schilling-Estes and Wolfram (1994) show that nonstandard were (as in Jimmy weren’t so bad) is predominantly used by males in the Outer Banks, North Carolina, as sociolinguistic patterning would lead us to expect, but Kirkham and Moore (in this volume) find the same nonstandard feature occurs as a marker for “anti-school, moderately rebellious” girls in Bolton, England, compared to their female classmates who are “institutionally orientated and conformist.”

Subtle linguistic variants like these get their social impact because they are departures from well-defined social norms. Even though those norms are largely beneath consciousness, they clearly figure in our communal awareness because departures from them, even seemingly small ones, can make a large impression.

6 Real Time Change Compares Two (or More) Historical Moments

Language variation can mark stable class differences or stable sex differences in communities, as we have seen, but it can also indicate instability and change. When it marks change, the primary social correlate is age, and the change reveals itself prototypically in a pattern whereby some minor variant in the speech of the oldest generation occurs with greater frequency in the middle generation and with still greater frequency in the youngest generation. If the incoming variant truly represents a linguistic change, as opposed to an ephemeral innovation as for some slang expressions or an age-graded change (Section 8 below), it will be marked by increasing frequency down the age scale.

The sociolinguistic representation of linguistic change thus takes the same essential form as representations of class markers and sex markers, with age instead of class or sex as the primary independent variable. In the variationist paradigm, linguistic change thus falls out naturally as one particular kind of
sociolinguistic variation. This method of studying change synchronously as a correlate of age, that is, in what we call “apparent time” (Section 8 below), represents a sociolinguistic innovation of enormous significance.

Before the advent of sociolinguistics, observations of linguistic change were traditionally made at two (or more) discrete points on a timeline. Structural linguists maintained that that was the only way changes could be observed because apprehending them while they were in progress was theoretically impossible (Bloomfield 1933: 347; Hockett 1958: 444; discussed critically in Labov 1972: 21–23, 1994: 44–45 and Chambers 2009: 198–200). Thus Hoenigswald proclaimed that “any historical statement contains, avowedly or otherwise, at least two synchronic statements – one for each of two or more stages” (1960: 3n). That is, the apprehension of change could only be made in “real time,” by comparing two (or more) moments in the history of the language. Hence, the study of language change in the structuralist paradigm was called “comparative linguistics.”

The structuralist position was presumably inherited from nineteenth-century philology, and both relied on textual evidence rather than speech in studies of change. Change is evident, for instance, in the texts of two translations of the Aeneid made some 375 years apart. The two passages below both express Aeneas’s reaction when his father’s ghost appears momentarily and then abruptly disappears. In the Scottish translation by Gavin Douglas, ca. 1515, Aeneas cries out (V, xii, ll. 140–142 [1957: 232]):

> Quhidder bradis thou now sa fast, without abaid?  
> Quhidder hastis thou swa? Quhom fleys thou? . . .  
> Quhat is the let I may the(e) nocht embrace?

The same passage translated into English verse in 1889 by Charles Bowen (V, ll. 743–744 [1889: 255]) goes:

> “Whither away?” Æneas replies; “why hurrying so?  
> Whom dost dread?  
> What bids thee avoid my loving embrace?”

The most obvious linguistic contrast in the two passages lies in the cognate questionwords *quhidder*: *whither*, *quhom*: *whom*, and *quhat*: *what*; elsewhere Douglas also writes *quhy* (I, pro, l. 361) for the word Bowen writes as *why*.

We infer that these spelling differences encode a phonetic difference, and from other sources we know what the phonetic values are. For most present-day readers, *whither*, *what* and *why* are pronounced with a voiced labiodental approximant [w]; for Bowen and his nineteenth-century Oxbridge contemporaries as well as for some present-day readers, they are pronounced [hw], that is, preaspirated or voiceless [w]; however, for Gavin Douglas (1457–1522) and his sixteenth-century Scottish contemporaries, they were pronounced [xʷ], as a labialized voiceless velar fricative. So Douglas writes <quh> for [xʷ] where Bowen writes <wh> for [hw]. Douglas’s usage preserves the sound in the Germanic language that was the precursor of English [hw]. Before that, in Proto-Indo-European (PIE), the
ancestor of Germanic, the cognate forms of these words were pronounced *kw, a
labialized voiceless velar stop, which became Germanic [x]” by Grimm’s Law. This
historical sequence, still in progress today (as we will see below), represents a
three-millennium lenition, a weakening from stop to fricative to approximant, and
from voiceless to voiced, with the following sequence:

*kw lenition: PIE *kw > Germanic, Old English, Scots [xw] > Middle
English, modern Scots [hw] > modern English [w]

This three-thousand-year process is probably the oldest traceable sound change
documented so far.

The two translations of the Aeneid cited above, more than 350 years apart,
provide what Hoenigswald called “two synchronic statements – one for each of
two . . . stages.” Written materials are not invariant (as we will see in Section 7)
but they are much more likely to be invariant than speech. Consequently, the
stipulation that inferences of change from written texts require two or more his-
torical sources is not entirely unreasonable. The structuralists took the philological
stipulation a step further, however, by declaring that speech is also invariant and
therefore inferences of change based on spoken evidence also require two or more
historical stages. Indeed, the presumption of invariance was so deeply engrained
that they were willing to sweep away any pesky instances of variant forms by
pretending they were not there. Thus Hoenigswald (1960: 1–2) said, “even if [the
speaker] did not say such-and-such at a given time, he could have done so. So
long as that is true, the investigator looks upon an idiolect (the corpus of utter-
ances by one speaker) as something static.”

Hoenigswald’s statement is an instance of what is called the Axiom of Catego-
ricity (Chambers 2009: 11–12, 26–37), the tenet that variability is accidental and in
any event unmanageable. Joos (1950: 701) stated it most forthrightly: “We must
make our ‘linguistics’ a kind of mathematics within which inconsistency is by
definition impossible. . . . All continuities, all possibilities of infinitesimal gradation,
are shoved outside of linguistics.” The Axiom of Categoricity was adopted
as a stipulation, often tacitly, by all schools of linguistics until sociolinguistics
emerged in the latter half of the twentieth century, embracing variability as essen-
tial (not accidental) and systematic (not unmanageable). Though linguists scarcely
noticed it at the time, sociolinguistics was not alone in pursuing systematicity in
real-world heterogeneity. Numerous other disciplines in the same period set out
to explicate gradation, giving rise to chaos theory, fuzzy sets, multi-valued logics,
nonlinear dynamics, catastrophe theory and many other constructs. The variation-
ist movement reshaped many fields of study besides linguistics.

7 Variation Is Discernible at Every Stage

The sociolinguistic apprehension of sound changes in progress shows that every
stage involves variation. It is not surprising, then, that variation is often discern-
ible even in literary sources. For instance, Gavin Douglas normally wrote quhen,
as we saw, but once he wrote *when* (X, xiii, l. 116: “That he may, when the son schynys aganen . . .” [1839 reprint of Cambridge MS, “presumably the author’s personal copy” (Coldwell 1964: 106)]). This spelling variant suggests that even in Douglas’s time Scots pronunciations were beginning to weaken from [xʷ] to [hw]. The first published edition of Douglas’s text tacitly substituted several lenited forms – *whare* (= “where”) for *quhare* twice, *what* for *quhat* twice, and *when* for *quhen* once (Coldwell 1964: Glossary). This edition was published in London in 1553, 31 years after Douglas’s death, and these variant forms were almost certainly introduced into the text by English editors or perhaps by English typesetters, but the fact that the text retains most of Douglas’s *quh-* spellings might suggest that the [xʷ] pronunciations had enough currency even in the south of England to preclude wholesale editorial or scribal transliteration.

Today, in the contemporary stages of this long drawn-out sound change, the phonemic contrast between preaspirated /hw/ and plain voiced /w/ survives in Scotland, Ireland, and the northernmost county of England, Northumberland, and also in places settled by Scots and their descendants, including Ulster and the southeastern United States. In some places outside these areas, the [hw] variant has been eliminated, but in many communities it survives as variable (wh), heard in upper-class speech or the most careful middle-class styles, or occasionally further down the social hierarchy as a kind of relic feature. In all these settings, with the possible exception of Scotland, /hw/ is recessive in the sense that it occurs less frequently in the speech of young people than old.

Canada is one of the places where /hw/ has been fairly persistent. Nevertheless, the [hw]-pronunciations have been in decline there for many years, as shown by surveys carried out at different times. Table 14.1 summarizes the results of three surveys by indicating the percentage of subjects with /w/ where the traditional or conservative accent had /hw/, that is, the subjects who pronounce *which* the same as *witch* and *whine* the same as *wine*.

As in most studies undertaken at different times, the three surveys in Table 14.1 are not totally comparable, because they take in slightly different age groups in different, though partially overlapping, regions. In spite of these disparities, Table 14.1 gives a coherent picture of change, with the numbers showing an increase from old to young in each row, and from decade to decade in each column. In each decade, there has been a steady increase in [w] replacing [hw].

### Table 14.1  Percentage of Canadians with [w] not [hw] in words like *which* and *whine* in two age groups surveyed about one decade apart.

<table>
<thead>
<tr>
<th></th>
<th>Older (%)</th>
<th>Younger (%)</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>1970</td>
<td>61</td>
<td>67</td>
<td>Scargill and Warkentyne 1972: 71</td>
</tr>
<tr>
<td>1990</td>
<td>70</td>
<td>91</td>
<td>Chambers 1998: 25–26</td>
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</tbody>
</table>
If the younger people in 1970 were in their 20s, then by 1990 they would have been in their 40s, old enough that they might have qualified as older subjects for the 1990 survey. The 1970 score for younger people (67 percent) matches fairly closely the score of the 1990 older people (70 percent). By extrapolating across the time interval we can infer that the 1970 subjects maintained their speech patterns as adults in 1990. Although this linguistic variable (wh) continued to change in the speech of people who came after them (younger people in 1980, for instance, at 90 percent), the 1970 adolescents evidently did not keep on changing but instead stuck with the variable pattern of their formative years.

This rudimentary observation lies at the core of the apparent-time hypothesis, the theoretical construct that underlies many of the breakthroughs in sociolinguistics and contemporary historical linguistics. We assume that under normal circumstances people of different ages retain the speech patterns of their formative years. Speech differences between people of different ages therefore reflect differences in the way people spoke in those years.

8 Apparent Time Usually Mirrors Real Time

Apparent time is the antonym of “real time.” In Table 14.1, the three surveys were undertaken at intervals of 10 years. The results summarized there cover 20 years of real time from the first survey (1970) to the last (1990). Apparent time, in so far as it accurately reflects real time, obviates the need for waiting 20 years (or whatever duration) to gather data. Instead, researchers can interview subjects whose ages differ by 20 years and compare the results. Besides eliminating the waiting interval, apparent-time surveys also permit data collection in identical settings and circumstances, thereby eliminating the comparability problems that we noticed for the real-time surveys in Table 14.1. (See Cukor-Avila and Bailey, this volume, for more discussion of real and apparent time.)

Notwithstanding its advantages, we must recognize that apparent time is a hypothesis, not an axiom. It is based on inferences rather than direct observations. We know from experience that we sometimes adopt new words or (less often) new pronunciations in place of the forms we grew up with. People lead complex lives, and numerous contingencies can affect the way they speak, including emigration, upward or downward mobility, affectation and much more (Sankoff 2004). The apparent-time hypothesis only holds if the replacements people might make as adults are sporadic or idiosyncratic, individual choices rather than communal choices.

One sociolinguistic situation that does not conform to the apparent-time hypothesis is age-grading, whereby young people alter their speech at some juncture in their lives in such a way as to bring it into conformity with adult norms. This retrenchment, so to speak, undoes what might appear, under ordinary circumstances, to be an incipient linguistic change. A familiar (and homely) example of age-grading is the replacement of nursery words (Mommy, Daddy, pee-pee, poop
and so on) by adult words that takes place generation after generation. The childhood variants are not indicative of a linguistic change (poop will not replace feces, or whatever) but will themselves be replaced with the adult forms. In the best-documented cases of age-grading (Chambers 2009: 200–206), the linguistic retrenchment occurs in adolescence and has the status of a coming-of-age ritual.

Unlike age-grading, changes that affect community norms show incremental increases in the use of a particular variant in the speech of younger people. Figure 14.5 illustrates a well-behaved change in progress. It shows a progressive rise from old to young, that is, from octogenarians on the left to teenagers on the right. The line graph plots the use of the innovative or incoming variant as a percentage for each age group. This is variable (wh), introduced above, and the percentages record the proportions of people in each age group who have merged the phonemes /hw/ and /w/ into the latter, the voiced labiovelar approximant.

The apparent-time span in Figure 14.5 happens to have caught the change as it nears completion. The two youngest age groups, the 20-year-olds and the teenagers, have all but eliminated the [hw] variant (at 87.6 percent and 90.6 percent). Projecting their trajectory of change into the future suggests (literally, predicts) that none of the people born 30 years after them will use the [hw] variant. Although that projection makes sound scientific sense, we know from numerous other cases that it does not make sound – or at least compelling – linguistic sense.
This is because linguistic variants that are well entrenched in the language, as this one clearly is, tend to linger. They continue to diminish, having lost their social salience except as “quaint” relics. This tailing-off has already begun, and it is visible in Figure 14.5 in the flatter trajectory for the two youngest age groups compared to the comparatively steep trajectory for the subjects two or more decades older.

The apparent-time span also captures the starting-point in stasis, with the two oldest groups almost identical (37.7 percent, 38.3 percent). If we project that state of affairs into the past (retroject it, so to speak), we discover a period of relative stability when the [hw] variant was the norm. That stability was disrupted by the 60-year-olds, whose usage is markedly different from the people older than them, so that, for them, the two variants were about equal. From that point forward, in the speech of people under 60, the [hw] variant was doomed. The trajectory of the change rises steadily, taking in about 10 percent of the population every decade for five decades, bringing it to the tailing-off point in the speech of the youngsters.

Just as the tailing-off period is a recurring pattern in linguistic change, so are the periods of initial stability and sudden rise. Before a change takes hold, there is a gradual, almost imperceptible, rise in frequency until the new form attains some kind of critical mass. At the earliest stage, the change apparently affects too small a population to serve as a model, but at some point it becomes perceptible, though usually beneath consciousness, and spreads through the community. No one has been able to establish the point of critical mass as an absolute value, and it appears to be different for each change, subject, like all social developments, to countless possible influences. Once that point is attained, however, the change accelerates relatively rapidly toward the tailing-off point.

The combination of these three stages – initial stasis, rapid rise, and tailing off – gives a characteristic shape in graphic representations that is known as an S-curve. The S-curve has been observed in diffusions of all kinds including technological advances and epidemics as well as linguistic changes (Bailey 1973: 77; Chambers and Trudgill 1998: 162–164), and is solidly established as a template for innovation diffusion (Rogers 1983).

Studies of linguistic changes will not necessarily capture all three stages. Depending upon the historical moment, the change might be caught near the beginning, when the initial stability shows signs of being disrupted by the first tremors of change, or in the middle when the change is progressing rapidly, or near the end, when it is tailing off toward a new stable state. Fortuitously, Figure 14.5 catches all three stages of the change. That means that in the 70-odd years of apparent time covered by this survey, the change took hold, attained critical mass, and rose to near-completion. The graphic display forms an S-curve, albeit a relatively flat one. Its gradualness is explained by the fact that in the initial stage the amount of variation was already high (roughly, 40/60 for the two variants) so that the acceleration of the change toward completion had only a short distance to go. This in turn is explained by the fact that the period of stable variability was unusually long – indeed, for variable (wh), perhaps the longest on record.
9 Change Diffuses Down the Urban Hierarchy

The situation graphed in Figure 14.5 is based on evidence from Canadian English, and the figures come from a survey called the Dialect Topography of Canada (Chambers 2007). It is deconstructed, so to speak, in Figure 14.6. The subjects whose responses form the S-curve live in four regions with relatively distinctive regional cultures and histories (the Golden Horseshoe, the Ottawa Valley, Montreal and Quebec City). The four regions are spread across about a thousand kilometers where 11.5 million Canadians live. The number of sociolinguistic observations underlying the figures consists of almost 5,000 tokens of which/witch and whine/wine from over 2,000 subjects representing both sexes of all ages from all walks of life. This is a fairly large sample, similar to public-opinion polls and the like. The sample size enhances the observation of change. The aggregate principle holds that when a trend is real, every additional observation gives it greater substance, and the converse also holds: when the trend is illusory, every additional observation makes it more chaotic.

The coherence of Figure 14.6 shows that the change it describes, the merger of /hw/ with /w/, is affecting all four regions. The change is not regional but national, taking place in Canadian English generally. That does not necessarily mean that the regions are progressing in exactly the same way. In fact, the regional

![Figure 14.6](image-url)
breakdown in Figure 14.6 shows that they are not. Close inspection reveals that two of the regions, the Ottawa Valley and Quebec City, are more erratic than the others, apparently following idiosyncratic paths in the middle part of the change. (Quebec City lacks a data-point for the over 80s because of inadequate sample size.) The other two regions, Montreal and the Golden Horseshoe, trace paths so similar that they are almost inextricable, but the Ottawa Valley and Quebec City meander through the first decades and then suddenly accelerate. In Quebec City, the acceleration starts with the 40-year-olds, and in the Ottawa Valley with the 20-year-olds. The result of these accelerations, and perhaps their motive, is that the people 30 and under in all four regions end up at the same point.

Understanding the demographics of the four regions helps to explicate the patterns. The two regions where the change is most regular, the Golden Horseshoe and Montreal, are highly urbanized and densely populated cosmopolitan centers, and the other two regions are less uniform with rural areas and towns as well as cities. Social changes of all kinds generally follow the diffusion route implied here: they take root in large urban areas and then diffuse down the urban hierarchy, from big cities to small cities and from there to towns and smaller settlements (Chambers and Trudgill 1998: 167–185; Boberg 2000). This pattern refutes traditional assumptions about innovations diffusing like a wave washing across a surface. A better analogy would be a pebble skipping across a pond, where the impact strikes one point and leaps to the next point, sending out ripples from each point of impact. The points of impact are the population centers. (See Britain, this volume, for more on the spatial diffusion of linguistic change.)

Abrupt changes are rare. The large increases in some decades for Quebec City and the Ottawa Valley in Figure 14.6, with 20 percentage points or more, are unusual because changes between contiguous age groups are normally restrained (as discussed in the next section). However, the presence of the other two urban regions in Figure 14.6, where the change is progressing regularly, provides a context that explains these erratic accelerations. The young people in the Ottawa Valley and Quebec City are engaged in a catching-up process that brings them into line with their age-mates in the other two regions. They were lagging behind in terms of the standard reference points in the larger community. Had they continued to lag, they might have established regional norms distinct from the national (or standard) norm. Instead, their increases have the effect of bringing their communal norms into line with the supra-local trends.

10 Change Is Gradual Between Contiguous Age Groups

When sociolinguists began viewing language changes in their social contexts, many of the old puzzles of historical linguistics simply disappeared. Weinreich, Labov, and Herzog (1968: 99), in their seminal article, observed that “a model of language which accommodates the facts of variable usage and its social and stylistic determinants not only leads to more adequate descriptions of linguistic competence, but also naturally yields a theory of language change that bypasses
the fruitless paradoxes with which historical linguistics has been struggling for half a century.” Their foresight has now been realized in numerous studies and is being refined continuously.

One of the paradoxes is the illusion of a communication breakdown in periods of intense change. Rates of change can fluctuate, with periods of relative stability followed by periods of considerable flux. In times of flux, if change is viewed from discrete points in time rather than along a continuum, it can take on the appearance of a generation gap. This viewpoint, seeing change as a punctual phenomenon rather than continuous, was the one advocated by structuralists and their predecessors. Change, they said (as in Section 6 above), could only be seen by comparing two or more periods. No one had actually witnessed a communication breakdown as a result of language change, and we now recognize the generation gap as an artifact of the static view.

Canadian English, which has experienced a period of fairly intensive change in the last 60 or 70 years, provides a case study. As it happens, variable (wh), the merger of /hw/ with /w/, is only one among many changes. Table 14.2 takes a sample of several changes and compares the percentages of the incoming variants at two discrete points 60 years apart. These changes are not necessarily the most dramatic, but they serve our purposes here by indicating several changes that have appeared fairly suddenly in this conservative branch of the English language. They also represent the major structural categories of language: couch and napkin are lexical changes, replacing the Canadianisms chesterfield and serviette; leisure is a pronunciation change; which and whine, and news and students represent phonological changes; and dove and snuck are morphological (all described in detail in Chambers 1998). The purpose in selecting changes from several categories will become evident in the next section.

### Table 14.2 Percentage of incoming variants in the speech of two age cohorts in the Golden Horseshoe, Canada.

<table>
<thead>
<tr>
<th></th>
<th>1920</th>
<th>1980</th>
</tr>
</thead>
<tbody>
<tr>
<td>[w] in which</td>
<td>29</td>
<td>89</td>
</tr>
<tr>
<td>[w] in whine</td>
<td>31</td>
<td>95</td>
</tr>
<tr>
<td>couch replaces chesterfield</td>
<td>6</td>
<td>85</td>
</tr>
<tr>
<td>napkin replaces (paper) serviette</td>
<td>48</td>
<td>85</td>
</tr>
<tr>
<td>napkin replaces (cloth) serviette</td>
<td>69</td>
<td>97</td>
</tr>
<tr>
<td>leisure rhymes with “seizure” (not “pleasure”)</td>
<td>58</td>
<td>99</td>
</tr>
<tr>
<td>news has [u] not [ju]</td>
<td>59</td>
<td>91</td>
</tr>
<tr>
<td>student has [u] not [ju]</td>
<td>43</td>
<td>89</td>
</tr>
<tr>
<td>dove replaces dived</td>
<td>59</td>
<td>90</td>
</tr>
<tr>
<td>snuck replaces sneaked</td>
<td>27</td>
<td>95</td>
</tr>
<tr>
<td>Average percentage</td>
<td>42.9</td>
<td>91.5</td>
</tr>
</tbody>
</table>

These changes are so extensive that they might suggest a sizable generation gap. They show that the speech norms in 1920 are very different from those in 1980. If teenagers spoke only to octogenarians, there might indeed be breakdowns in intelligibility. But such a view presupposes that change is instantaneous. The reductio ad absurdum for instantaneous change, attributed to the late James D. McCawley, imagines a Londoner who slept through the Great Vowel Shift and was bewildered the next day at being served ale when he ordered eel. We know that such changes do not take place overnight.

The apparent-time hypothesis makes us aware that speech norms characteristic of people born in 1920 and 1980 are mediated by the norms of people in between. One of the empirical breakthroughs of sociolinguistics, obvious though it seems in retrospect, is the discovery that the intermediate groups are truly intermediaries. Linguistic changes (and innovations of all kinds) occur as gradations rather than discontinuous steps. This gradation can be seen clearly in Figure 14.5 above, with its graphic representation of an extensive linguistic change embedded socially as a series of relatively mild increases in contiguous age groups.

The social embedding of language change is dramatized in Figure 14.7 by plotting all the changes in Table 14.2 against the continuous age scale on the abscissa. Each of the changes, of course, has its own complications. Tracing the lines would show, for instance, that napkin comes into use more slowly for a serviette made of

![Figure 14.7](image_url)
paper than for a serviette made of cloth, among other niceties. More obviously, each of these changes has its own starting-point and ending-point. In other words, the changes are not perfectly synchronized. They are, however, contemporaneous, and after the impression of their differentness vanishes, what leaps out of the aggregated data is the striking diagonal trend that gives a kind of unity to these changes. In effect, the figure smooths out the vagaries in the individual rows of Table 14.2. Those differences are discernible in Figure 14.7, all right, but they are overwhelmed by the larger regularities.

This provides another example of the aggregate principle (defined in the previous section): group results for any empirically based phenomenon are more revealing than the results for any individual in the group. In this case, the individuals are not subjects but are linguistic changes.

The diagonal thrust of the changes is roughly megaphone-shaped: broad at the left and narrowing rightward. At the broad end, the 80-year-olds have a range of about 65 percent for all the variables but at the narrow end the teenagers have a range of only 15 percent. The speech of older people is clearly more varied and less predictable than the speech of younger people. In other words, in the speech of older people more than one variant has some currency, but among younger people only one variant has much currency.

Figure 14.7 demonstrates the illuminating effect of viewing sound change as a dynamic process. We recognize that the changes are taking place as an orderly progression, with small – and socially manageable – increments along the age continuum. In all societies, people are in most frequent and intimate daily contact with people in the same age cohort. Spouses, best friends, classmates, team mates, work mates, tennis opponents, bridge partners, club members and business associates tend to be within a decade or so of one another. These are the people who share reciprocal relationships, the kind that carry the most weight both socially and linguistically. The converse also holds. Relationships between people more than a decade apart in age are likely to be non-reciprocal – parents and children, teachers and students, supervisors and workers, managers and clerks. They are likely to be less influential socially – and linguistically.

Figure 14.7 shows that in speech communities people close in age speak much the same as one another, even with respect to variables that are going through fairly rapid changes; hence the rarity of abrupt changes. Individual awareness of language change as people go about their mundane activities is mitigated by the insulating effect of these peer-group similarities. The social embedding is structured and cohesive.

11 Impetus For Change Is Usually Social, Not Linguistic

If we were to consider the changing variables in isolation, it might be possible to conclude that each one was undergoing change for linguistic reasons. There is
usually, perhaps inevitably, a linguistic aspect to the change. Variable (wh), the merger of /hw/ with /w/, is a case in point. The preaspirated variant [hw] is disappearing for what appear to be cogent linguistic reasons. In the English phonemic inventory, it is the only preaspirate, the only devoiced approximant, and one of two consonant phonemes that occur only syllable-initially (the other is /h/). These conditions might be construed as sufficient in the sense that they determine the direction of change to be what it is, /hw/ > [w] and not vice versa. Eliminating /hw/ rids the system of a highly marked and poorly integrated segment.

However, these linguistic properties have no bearing on the fact that the elimination of [hw] is imminent at this time and in this place. It has, after all, been a highly marked segment for many centuries. It became a preaspirate more than a thousand years ago at the time of the Anglo-Saxon diaspora, and it has been the only preaspirate since approximately the twelfth century, when /hn-/, /hl-/, and /hr-/ dropped out (Schreier 2005). It has been declining in nearly all varieties of English ever since, but its death throes are only now audible.

The linguistic conditions may be sufficient, but it is the social conditions that are deterministic. As we have seen, the [hw] variant of variable (wh) is not alone as it nears extinction. It is one of several changes, all of them moving in the same direction, and all of them restricting the frequency of one of the variants perhaps ultimately to extinction. Linguistically, these variables have little in common, representing phonology, lexicon, pronunciation, and morphology. Historically, they have widely disparate timelines. Couch is replacing chesterfield, but chesterfield became established in standard Canadian English no earlier than 1900 (Chambers 1995). Snuck is replacing sneaked, but in Canadian English snuck had very little currency until the 1950s (Chambers 1998: 22–25). Compared to (wh), which has been undergoing lenition for three millennia (as in Section 6 above), these are mere fledglings, and yet all of them are moving in concert in the period covered by Figure 14.7.

We can specify that time period with considerable precision by exploiting the apparent-time hypothesis. Closer inspection of Figure 14.7 allows very precise inferences about the moment of concentrated change for each variable, determined by the decade when the greatest increase occurred in the use of the incoming variant, which coincides uncannily with the decade in which it became established in majority use. Those increases occur in the speech of 60-year-olds (leisure, napkin), or 50-year-olds (dove, snuck), or 40-year-olds (couch, student, which).

These are subjects who were born between 1932 and 1952. This reckoning is made simply by working back from the survey year, 1992, by the ages of respondents. The formative years for dialect and accent formation are from eight to 18, and the apparent-time hypothesis is predicated upon retention of those dialect and accent features thereafter, other things being equal. This allows closer dating, according to the commonsense calculations shown in Table 14.3. For instance, a subject in her 60s (60–69) at the time of the 1992 survey was born in the decade 1923–1932, and so her formative years from eight to 18 were the 1930s.

These formative years appear on the abscissa in Figure 14.8, which is a notational variant of Figure 14.7. Figure 14.8 is derived from Figure 14.7 by calculating
Table 14.3  Formative years for dialect and accent from 8–18 based on birth years.

<table>
<thead>
<tr>
<th>Formative years (8–18)</th>
<th>Birth years (from 1992 survey date)</th>
</tr>
</thead>
<tbody>
<tr>
<td>base</td>
<td>before 1913 (over 80)</td>
</tr>
<tr>
<td>1920s</td>
<td>1913–1922 (70–79)</td>
</tr>
<tr>
<td>1930s</td>
<td>1923–1932 (60–69)</td>
</tr>
<tr>
<td>1940s</td>
<td>1933–1942 (50–59)</td>
</tr>
<tr>
<td>1950s</td>
<td>1943–1952 (40–49)</td>
</tr>
</tbody>
</table>

Figure 14.8  Rate of change for the seven changes in progress in the Golden Horseshoe, the first derivative of Figure 14.7.  

“the rate of change” as the increment of change from one decade to the next in an apparent-time representation (Easson 2000). For instance, the difference in the use of the variant couch between the 50-year-olds (23 percent) and the 40-year-olds (49 percent) is 26 (49 – 23 = 26), and the difference between the 40-year-olds and the 30-year-olds (65 percent) is 16; the difference is taken as an index of the rate of
change (26 for the former, 16 for the latter). As an index score, it has no absolute meaning but is meaningful relative to other scores made from the same database. Figure 14.8 calculates the rate of change as the average increment for all 12 variants in Figure 14.7. It forms a bell, as if plotting normal distribution. This is accidental, but it emphasizes that the survey that produced these results was fortuitously timed so that it captured virtually the entire change cycle (as discussed in Section 8 above) in the 70-year span of its apparent-time coverage.

Most important for our purposes here, the representation focuses attention on the sociocultural basis for the changes. In each of the changes a British English variant diminishes and an indigenous Canadian, or more broadly North American, variant accelerates (Chambers 1998: esp. 29–30). The chronology of these changes, with their main thrust in the 1940s and 1950s, the apex in Figure 14.8, coincides with the time when British influence diminished noticeably in Canada as in other parts of the world, most palpably with the dissolution of the British Empire. At the same time, multi-ethnic immigrations diluted and ultimately overwhelmed the Anglo-Celtic hegemony of Canadian ancestry (Chambers 2004). The changes were positively reinforced as well. In the second half of the twentieth century, the standard middle-class variety of Canadian English joined certain regional American standard dialects in a continent-wide linguistic movement toward a developing North American standard variety (Chambers 1999). Even that may be too circumscribed: the developing standard may turn out to be not merely continental but global. Some of the features – elimination of /ju/ after coronals and /hw/ in all contexts, dove and snuck as past tenses, among those shown in Table 14.2 – appear to be on the rise in Standard English dialects all over the world (Chambers 2000).

Global linguistic changes like these are a concomitant of global social changes. Dialect leveling requires face-to-face interaction among peers, and for several generations interactions have multiplied with advances in geographic mobility, and peers have proliferated with burgeoning social and occupational mobility. From this perspective, the linguistic changes shown in Figure 14.7 and echoed in Figure 14.8 have merely kept pace with the pervasive sociocultural changes for which they have supplied the constant, and absolutely essential, accompaniment.

Presumably, it has always been so. Language is, after all, one of the sociocultural tools that make human existence possible in the first place, and that empower, enrich, and perpetuate it. Language may be the greatest of those tools and the most palpable effusion of innate human creativity, but it is only a tool nevertheless. Grammars come into being in the service of communication, and both grammar and communication must be enacted through communicative competence. We express who we are with fine nuance and no little grace, varying the way we sound and the words we use depending upon the social setting in which we are speaking. And it is not only our own class, sex, age, ethnicity, style, and other attributes that we are sensitive to but also all those things in the people we are speaking to. The social uses of language are so fine-tuned and subtle as to be virtuosic, but they are mostly beyond conscious manipulation or simple introspection. They are so deeply engrained in our human nature as to form sociolinguistic
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patterns that are more or less predictable. The patterns are not invariant – far from it – but they are regular enough to constitute a kind of creative baseline for developing deeper understanding.

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Department of Linguistics, University of Toronto.


Part V  Social Differentiation
In addition to investigating patterns of variation across speaker groups, variation analysis encompasses the study of variation in the speech of individual speakers, or stylistic variation. Indeed, style has become increasingly important in quantitative sociolinguistics, as researchers have come to recognize that language variation is not simply reflective of relatively static social meanings and social group memberships/identity categories. Rather, variationists increasingly see personal and group identity as dynamic, in keeping with social constructionist views in the social sciences more generally, and linguistic variation as a key resource whereby individuals shape and reshape personal identities, interpersonal interactions, group memberships, social orders, and ways of thinking (i.e. attitudes, ideologies). Hence, there is an increasing focus the on intra-individual patterning of variation, including how individual variants pattern across different discourse contexts; how variants co-occur in, and cohere into, individual styles, situational styles (e.g. registers), and group styles (e.g. dialects); and, crucially, how variants are used in a non-aggregate sense, in unfolding discourse.

Though stylistic variation was always a component of variationist sociolinguistic studies, it was not always a central focus. Under the original Labovian formulation (1972a), stylistic variation was held to be an offshoot of social group variation, especially social class, with speakers using variants associated with upper class groups in more formal situations and those associated with lower social class groups in more casual, relaxed settings. In addition, style shifting was held to be a largely reactive phenomenon, conditioned by the formality of the speech context rather than helping to shape the context. As the decades progressed, style became an object of study in its own right, and researchers began to recognize the importance of social factors pertaining to audience in shaping speech style (Bell 1984),
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including not only social class but a full range of demographic and personal characteristics. Further, researchers began to recognize that style shifting is not always reactive, triggered by a change in formality or audience composition, and speakers often initiate shifts in language style to effect contextual changes, including changes in role relations among interlocutors. Subsequently, the creative potential of stylistic variation received more and more attention and has today become central not only in discussions of intra-speaker variation per se but variation analysis more generally, since many researchers now hold that even established group styles (dialects) have their roots in individual agentive linguistic usages and that individual and group styles are always undergoing change, as people continually use stylistic resources in unfolding linguistic interaction (Coupland 2007, Eckert 2005).

As the focus has turned from the reactive to the creative and from aggregate patterns to local usages, researchers increasingly have come to recognize that the social meaning of linguistic variation is not always group associational. Rather, variants are often used to convey more immediate interactional meanings, to enact particular stances toward interlocutors and toward the talk at hand (Kiesling 2009), and to project character attributes such as “learnedness,” “precision,” “hardworkingness,” “friendliness,” and so on. Stances and attributes can become associated with individuals, character types, and social groups, and in turn these wider-scale meanings are drawn upon by speakers and listeners in unfolding conversation. Hence, the local and the global work together: Just as individual linguistic usages shape individual, group, and social identities and meanings, so too do established social meanings shape what individuals can do with language.

In the sections that follow, I outline the three major variationist approaches to style, beginning with Labov’s Attention to Speech approach (1972a), in which speech style is contingent on the relative formality of the speech situation and hence chiefly reactive; Bell’s Audience Design approach (1984), in which style shifts are conditioned primarily by one’s audience (i.e. who is populating the speech situation) but also secondarily by speakers’ proactive alterations in the speech situation through the use of linguistic forms associated with non-present “audience” members or with certain interactional stances; and the Speaker Design approach (Coupland 1996), in which the focus is on speakers’ creative use of stylistic resources to shape and re-shape identities, situations, social structures, and societal belief systems. Roughly speaking, these three approaches to stylistic variation can be correlated with Eckert’s (2005) “three waves of variation study” (Soukup 2010). In particular, “third wave” study moves quantitative sociolinguistics from its traditional focus on how linguistic variants correlate with social categories to how speakers use language to make social meanings, including both identificational and interactional meanings, in unfolding discourse via stylistic variation. However, as we proceed, we will bear in mind that, just as the three waves of variation study as outlined by Eckert are not neatly separable, neither are Attention to Speech, Audience Design, and Speaker Design; and in the final analysis, gaining a full understanding of stylistic variation – and of the social
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meaning of linguistic variation more generally – entails a dual focus on the individual and the aggregate, the agentive and the reactive, and on both creative usages and pre-established connections between linguistic forms and social meanings.

1 Attention to Speech

The first variationist investigations of stylistic variation were conducted by William Labov (1972a), whose primary interest in style lay in obtaining and identifying data that represented, as closely as possible, people’s “natural,” “casual” speech rather than speech that has been rendered artificially self-conscious and “formal” due to the presence of an observer. To this end, Labov developed the sociolinguistic interview, a loosely structured discussion designed to approximate the flow of a casual conversation and to steer interviewees’ attention away from speech itself toward the subject matter of their talk (e.g. Labov 1972c, 1984). Questions are focused on topics believed to be of fairly universal interest, as well as matters of particular interest to each community of study, and interviewees are encouraged to talk as long as they like on any topic that particularly interests them, to tell stories or narratives, and even to go off on tangents of their own. For example, Labov has long maintained that interviewees will tell particularly animated narratives and forget about the fact that they are being recorded (and so produce truly natural, “vernacular” speech) if interviewers ask them his famous “danger of death” question: “Have you ever been in a situation where you were in serious danger of being killed, where you thought to yourself, This is it. . . .” (Labov, 1972c: 113).

According to Labov (1966, 1984, 2001), no matter how cleverly we design our interview conversation to yield casual speech, much of it will still be rather guarded or careful. In order to separate careful speech from the true focus of interest, casual, vernacular speech, Labov maintained that we must consider the intra-interview context in which the speech occurs. Careful contexts include direct responses to interviewer questions, discussions of language itself, and “soapbox” oratory in which the interviewee makes generalized proclamations to an imagined larger audience. Casual contexts include narratives and tangents, speech directed to a third party (a child or friend who wanders into the interview setting), and discussions of the interviewee’s childhood, especially when the interviewee speaks from a child’s point of view.

In addition to conversational speech, the sociolinguistic interview originally included a series of additional tasks designed to yield increasingly self-conscious, careful, and hence standard speech: a reading passage, a word list, and a list of minimal pairs – that is, words that differ by only one phoneme in standard speech but may or many not differ in pronunciation in nonstandard varieties. For example, in Labov’s (1966) foundational study of New York City’s Lower East Side, the minimal pair task focused on r-lessness vs. r-pronunciation in word pairs like sauce/source, god/guard, and so on.
Social Differentiation

The predicted patterning of stylistic variation as one moves from the conversational portion of the interview to the reading passage, word lists, and minimal pairs is based on the view that speech style is conditioned primarily by how much attention the interviewee is paying to speech itself rather than what they are talking about, with relatively unselfconscious speech being more casual and non-standard and more self-conscious styles being more careful and yielding more standard language variants. The predicted patterns were often borne out in early studies, for example Labov’s (1966) New York City study, as Figure 15.1 illustrates. Note how, as the interview proceeds from casual to careful to reading passage to word list to minimal pair styles, from left to right, speakers from a range of socioeconomic classes all use more features of Standard American English; in this case, postvocalic /r/-pronunciation, a prestige norm that was making its way into New York at the time of Labov’s study, replacing the traditional /r/-less pronunciation.

Correspondingly, New Yorkers use decreasing levels of nonstandard features such as /r/-lessness as in [kɑ:] “car” or [mʌðə] “mother” (Labov 1972b: 114).

While the patterning of conversational vs. more formal styles is indeed highly regular and yields important information bearing on questions of language variation and change (e.g. on the role of hypercorrection among speakers of middle socioeconomic class groups such as SEC 6–8 in Figure 15.1), the main reason for

Figure 15.1 Stylistic and social class variation for postvocalic r in New York City English.

*Source:* From Labov (1968) The reflection of social processes in linguistic structures. In Fishman, Joshua (ed.) *Readings in the Sociology of Language.* 244, Figure 2. Berlin/Boston: Walter de Gruyter. Key: Socioeconomic class scale: 0–1, lower class: 2–4, working class; 5–6, 7–8, lower middle class; 9, upper middle class. A: casual speech; B: careful speech; C: reading style; D: word lists; D’: minimal pairs.
eliciting a range of styles in the sociolinguistic interview is, again, to be able to identify each individual’s least self-conscious style – the vernacular. This focus, and the reasoning behind it, is captured in Labov’s Vernacular Principle, which states that “the style which is most regular in its structure and in its relation to the evolution of language is the vernacular, in which the minimum attention is paid to speech” (Labov 1972c: 112). Hence, the main goal in conducting the sociolinguistic interview was, and still often is, to minimize attention to speech, or to overcome Labov’s Observer’s Paradox, which states: “To obtain the data most important for linguistic theory, we have to observe how people speak when they are not being observed” (Labov 1972c: 113).

In Labov’s view, then, the study of stylistic variation is valuable chiefly because it enables us to locate each individual’s most regularly patterned speech – their least self-conscious, most natural, vernacular style. In addition, the patterning of variation across styles is regular and predictable when we focus on how people respond to situations set up to alter amount of attention to speech vs. conversational content. Finally, according to Labov, the most regular patterns of stylistic variation emerge when data are aggregated within stylistic contexts and across individuals (as in the regular quantitative patterns in Figure 15.1), and hence the meaning of stylistic variation must lie in its quantitative patterning, not in individual usages of particular variables. Thus, Labov maintains, “The use of a single variant – even a highly stigmatized one such as a centralized diphthong in ‘boid’ for bird – does not usually produce a strong social reaction. . . . It is the frequency with which [a speaker] uses such forms that has social significance” (1972a: 108).

1.1 Limitations of the Attention to Speech approach

Despite the predictive power of the Attention to Speech approach to stylistic variation as operationalized in the relatively controlled Labovian sociolinguistic interview, it has been criticized on a number of grounds. For example, it yields a unidimensional focus on only one factor affecting stylistic variation and on only one continuum of stylistic variation – standard-nonstandard – reflecting the sublimation of stylistic variation to socioeconomic class-based variation. In addition, even if we maintain that attention to speech is indeed paramount, or at least important, we do not really know how to quantify it. Most likely there are factors other than varying amounts of attention to speech that contribute to stylistic variation, even in sociolinguistic interviews designed to focus on this very factor, let alone in the myriad styles we find outside the relatively controlled interview situation. Thus, for example, we may question whether reading style lies on the same plane as spoken styles, since it is likely that people have specialized reading registers that differs in a number of ways from spoken speech, not just degree of carefulness (e.g. Macaulay 1977; Milroy 1987: 173–178; Romaine 1978, 1980). Similarly, as Eckert (2001) notes, Labov’s categories for separating casual from careful speech have to do not only, or even primarily, with attention to speech but also
such matters as audience (as with group vs. individual style), topic (e.g. kids), conversational control (as with tangent vs. response), and perhaps even genre (as with narrative vs. soapbox style). And even simply identifying the various contexts can be less straightforward than it might seem. For example, the supposedly careful “soapbox” context can be difficult to distinguish from a casual “tangent,” since both involve the interviewee’s moving the topic away from the interviewer’s question. Recognizing this difficulty, Labov initially offered several paralinguistic channel cues to casual style in addition to interview contexts – namely, changes in tempo, pitch range, volume or rate of breathing, as well as the presence of laughter. However, these cues were quickly abandoned, since it was readily recognized that changes in the first three could be just as indicative of increased nervousness and self-consciousness as of animation and involvement with one’s topic, while laughter too can be a cue to self-consciousness or relaxedness, and it is not clear how close laughter needs to be to a stretch of speech for that speech to count as “casual” (e.g. Wolfram 1969: 58–59).

Finally, researchers have questioned the focus on vernacular, unselfconscious speech that underlies the Attention to Speech model, for several reasons. Variationists increasingly are recognizing that people’s everyday speech repertoires include a variety of self-conscious as well as unselfconscious styles; and further, self-conscious, “stylized” linguistic usages are probably becoming more commonplace as people come into increasing contact with more languages, varieties, and variants (as well as their associated social meanings and norms for use) in the face of increasing mobility, globalization, and mediatization (Coupland 2007). In addition, self-conscious speech is more prevalent than we might like to think even in sociolinguistic interviews, since interviewees can – and do – conceptualize them as occasions for dialect display despite researchers’ best efforts to relegate speech itself to the background (e.g. Coupland 1980; Reah 1982; Schilling-Estes 1998; Trudgill 1972). Finally, even when speakers are feeling relatively unselfconscious about their speech, we can question whether there really is any such thing as an individual’s single “genuine” vernacular – a “default” style unaffected by any contextual factors – since people always shape their speech to fit the situation at hand and suit their various purposes (e.g. Eckert 2000; Hindle 1979; Milroy and Gordon 2003: 49–51; Schilling-Estes 2008).

Indeed, sociolinguists increasingly are coming to see all speech as self-conscious to a degree and stylistic variation as a primary means for the creative performance of personal identity, interpersonal relations, and social categories and meanings. These newer views are, of course, dramatically different from early variationist conceptualizations of stylistic variation as primarily reflective of the demographic categories and responsive to the speech situations in which speakers find themselves – or into which they are placed by sociolinguistic researchers. However, this is not to say that speakers (or researchers) can completely disregard established associations between linguistic and social meaning as they shape their speech styles and identities; rather, interactants necessarily draw on these associations to help craft new meanings, a matter discussed in more detail in the sections that follow.
2 Audience Design

For all the focus on attention to speech as an important conditioning factor in stylistic variation, there has long been at least tacit acknowledgment of other influences on speech style, especially one’s audience. Hence, sociolinguists quickly realized that peer group interviews would often yield more vernacular speech than one-on-one interviews, as for example in Labov’s (1973) studies of African-American teens in Harlem, Hewitt’s (1982) study of London adolescents’ use of Jamaican Creole, and Cheshire’s (1982) study of teens in Reading, England.

The striking effects of audience on speech style are the focus of the second major approach to stylistic variation, Bell’s (1984) Audience Design model, which holds that people engage in style shifting, not in response to shifts in amount of attention paid to speech, but in response to audience members. The model builds on both variation analysis and Speech Accommodation Theory (Giles 1973; Giles and Powesland 1975), a social psychological model that holds that speakers tend to adjust their speech toward that of their addressees in order to win their approval. Less commonly, speakers may adjust away from addressees’ speech in order to create psychological distance. Speech Accommodation Theory (SAT) is grounded in a number of experiments that show convergence, and sometimes divergence, of speakers to addressees in such matters as speech rate, content, pausing, and “accent” (typically not very precisely defined in SAT). The Audience Design model extends SAT by applying the insights of the theory to the patterning of specific linguistic variables and by going beyond addressee effects to consider the effects of others who might be part of a speaker’s audience – namely, AUDITORS, ratified participants in the interaction who are not being directly addressed, OVERHEARERS, persons who are not participants but are known to be within hearing distance of the interaction, and EAVESDROPPERS, unratified persons who are not known to be present but whose possible presence may alter one’s speech patterns (as, for example, the speech patterns of two ratified participants having a “private” conversation at a table in a crowded restaurant).

The Audience Design model provides a fuller account of stylistic variation than the Attention to Speech model in several ways. First, it is less unidimensional. The notion of “audience” is multifaceted, and it is acknowledged, and indeed empirically demonstrated, that direct addressees have more effect on speaker style than do auditors and other audience members. This is seen, for example, in Bickerton (1980), Thelander (1982), and Douglas-Cowie (1978), whose studies show a greater degree of shifting in peer group speech with an interviewer alone than speech between peers when the interviewer is present as an auditor. In addition, Trudgill (1981) shows that interviewers as well as interviewees respond to addressees, in his study of how he himself used different speech patterns when conducting interviews with people of different social class groups for his study of Norwich, England (1974).

Also important is the fact that Audience Design can be applied to real-world contexts as well as research interviews. In fact, Bell developed the model based
in part on his studies of radio presenters in New Zealand, whose styles he observed to shift toward or away from dialectal New Zealand English and “proper” British English, or Received Pronunciation (RP), based on whether they were reading the news on stations broadcasting to lower-status or higher-status audiences (1977, 1984).

The Audience Design model also allows for the effects of other factors besides audience on speech style, for example, topic, setting, and channel. However, the effects of these factors are held to be derivative of audience-related concerns: When speakers appear to shift styles based on shifts in topic (e.g. Blom and Gumperz 1972; Coupland 1981; Douglas-Cowie 1978; Giles and Powesland 1975) or setting (e.g. Hindle 1979), they are actually shifting based on addressees associated with the various topics and settings – in other words, as if talking to these various addressees. If topic- and setting-related effects are indeed derivative of audience effects, then the former should be weaker than the latter (Bell 1984: 178–182). This prediction is borne out in quantitative studies. For example, Coupland’s (1980) study of stylistic variation in the everyday workplace speech of an assistant in a Cardiff travel agency shows a greater percentage of shift for certain variables associated with more or less vernacular Cardiff speech across different audiences than across different topics (see Bell 1984: 179, Table 6). Rickford and McNair-Knox (1994) also test the effects of audience vs. topic in their comprehensive study of usage levels of a number of African American Vernacular English (AAVE) features in the speech of an African-American teenager, “Foxy,” who participates in a series of interviews with an African-American interviewer, as well as a single interview with a white fieldworker. Although Rickford and McNair-Knox show that the amount of style shifting is actually greater across topics within individual interviews than across interviews with different addressees, they maintain that audience effects are actually greater overall, since Foxy generally uses higher frequencies of vernacular variants on every topic when talking with the African-American interviewer than with the white fieldworker (1994: 258–262).

Despite their success in identifying the effects of such factors as audience, topic, setting, and channel on stylistic variation, researchers have come to realize that there is a great deal of stylistic variation that cannot be accounted for by appealing to situational factors, since speakers often creatively initiate style shifts in order to alter the situation in some way. For example, in their classic study of the small town of Hemnesberget in Northern Norway, Blom and Gumperz (1972) found that, while switches from the local dialect to the standard variety (and vice versa) were often accompanied by changes in the external situation (e.g. a person entering the room during a conversation), switching also frequently took place in the absence of such situational changes. For example, a speaker might suddenly switch to the standard variety during a casual conversation with vernacular-speaking friends in order to clinch an argument. Similarly, Coupland (1980) noted that the travel assistant he studied engaged in style shifting not only based on who she was talking to or what she was talking about but also when she changed the purpose of her conversation. For example, she once shifted into more vernacu-
lar style when talking with a difficult client in order to indicate increasing desire to be helpful.

In order to account for such shifts, Bell added an initiative component to his essentially responsive model. However, initiative shifts were considered to represent a small part of the Audience Design model and to be derivative of audience-designed shifts, in that speakers who engage in such shifts were held to be responding to non-present audience members (whom Bell calls referees) who are so important to the speaker that they influence speech even when not immediately present (Bell 1984: 186–187). In more recent formulations (e.g. Bell and Johnson 1997; Bell 2001), initiative, agentive shifts are held to be just as important as responsive shifts. However, initiative shifts are still essentially reactive, in that they involve utilizing styles normally associated with one speaker group or speech situation in contexts in which their use is non-normative (“marked”), thereby “infusing the flavour of one setting into a different context” (Bell 1999: 524).

2.1 Questions concerning Audience Design

Since its inception, the Audience Design model has been well received by variationists, for its explanatory power, its applicability to speech events besides the sociolinguistic interview, and for the strong, testable predictions it makes regarding such matters as the ratio of addressee effects to auditor and overhearer effects and the ratio of audience effects to the effects of setting and topic (e.g. Rickford and McNair-Knox 1994: 241). In addition, in its newer formulations, the Audience Design approach allows for both responsive and creative style shifts, in recognition of the fact that, while people often do predictable things with language, there are a great many occasions when they do not, including even in research interviews designed to control for such effects on style as audience, topic, and self-consciousness about speech. However, Audience Design-based approaches still leave us with some questions.

One central question for the Audience Design model is, if indeed speakers design their speech styles primarily for audiences, what exactly is it about their audiences that inspires them to shape their styles as they do: addressee’s actual speech patterns, the speech patterns we might expect based on demographic characteristics, or other personal characteristics of audience members?

Although speakers do seem to accommodate in part to their interlocutors’ speech, they do not tend to fully accommodate, in the sense of exactly matching their interlocutors’ usage levels for all speech features, as demonstrated, for example, in interviewee speech by Rickford and McNair-Knox (1994) and in interviewer speech by Trudgill (1981). Further, it seems that speakers also accommodate toward the expected rather than actual speech patterns of their addressees. For example, in an early study of AAVE in Washington, DC, Fasold (1972) noted that informants showed higher usage levels for vernacular variants when talking with standard-speaking black interviewers than with white interviewers. However, it is not clear in studies such as this exactly which personal
characteristics the interviewees are responding to: perhaps ethnicity, but also perhaps age, gender, familiarity, personality, or interactional goals specific to a particular addressee.

In an attempt to tease out the effects of various audience characteristics on stylistic variation, Bell and Johnson (1997) designed a quite controlled study involving a series of interviews in New Zealand in which both interviewee and interviewer were varied along both ethnic and gender lines (i.e. Maori and Pakeha [white], male and female). Each of four interviewees was interviewed three times, by interviewers of like and unlike ethnicity and like and unlike gender, excluding only the least like pairing in each case (e.g. Maori man and Pakeha woman). All other factors were kept as constant as possible, including age, setting, and even questions asked, to minimize topic-based variation. The linguistic features examined were a set of discourse/pragmatic features that serve to draw audience attention and bring the listener into conversations, for example, the *eh* particle (“it’s becoming a bit of a business now, eh?”), and high rising terminal intonation on declaratives. These two features also have group associational meanings – *eh* is associated with Maori men and high rising terminals with Pakeha women.

A quantitative analysis of interviewee speech reveals patterns indicative of “classic audience design,” namely, increased use by interviewees of features associated with each of their different audiences. Hence, the Maori man uses the most *eh* with the Maori male interviewer (as well as the most *eh* of all the interviewees), while the Pakeha woman shows the highest usage levels for high rising terminals with the female interviewers (and again, the highest usage levels in general for this feature). However, the interviewers’ usages seemingly run counter to the expectations of Audience Design, in that the interviewers use more *eh* than the interviewees, including interviewees who do not use much *eh* themselves or could be expected to show low usage levels for *eh* based on their demographic characteristics. Hence, for example, while the Maori man not surprisingly receives the most *eh*, the Pakeha woman receives almost as many, even though she herself uses no *eh* whatsoever.

Bell and Johnson suggest that the explanation for this patterning lies in the fact that the features carry both group associational and interactional meanings, and sometimes speakers accommodate to audiences by capitalizing on the latter types of meanings rather than simply adjusting their speech based on audience demographics. Hence, the interviewers use a lot of *eh*, not because it is associated with Maori men, but because it can be used to draw people into conversation, and it is their job as interviewers to do just this. In particular, they use high levels of *eh* with the Pakeha woman because she is the most hesitant speaker, and so the interviewers have to work hardest with her to get her to talk. Thus, in considering the question of what characteristics of their audiences speakers respond to, we have to consider not only demographic factors but also interactional ends. In recognizing the multifaceted meanings of linguistic variants, Bell and Johnson prefigure Speaker Design approaches in which the interactional meaning of linguistic forms figures prominently (see Section 4 below). Their recognition that interviews are interactions, not monologic productions of interviewees alone, and
that both interviewer and interviewee contributions are equally important, also
sets the stage for current approaches to stylistic variation, in which language
and identity are seen as joint constructions of co-conversationalists, performers and
audiences, and speakers and listeners more generally.

Another issue in Audience Design involves the interplay between the respon-
sive and initiative dimensions of style shifting. As noted above, as the Audience
Design model has evolved, it has placed increasing emphasis on initiative, creative
style shifting, while still maintaining that initiative shifts can only get their mean-
ings through established connections between linguistic forms and social mean-
ings. Although, certainly, variants and styles can conjure up meanings normally
associated with particular people and situations, it is not always clear how to go
about identifying normative or unmarked vs. non-normative, marked styles in all
speech situations. In fact, once we acknowledge that language is not merely refl e-
tive of context but co-constitutive of it, then it becomes exceedingly diffi  cult to
correlate styles with situations, since both work together to defi ne (and re-defi ne)
one another. Further, speakers use styles and variants to shape themselves, their
interlocutors, social groups, and even seemingly “given” social categories such as
gender and ethnicity, further problematizing the notion of “unmarked” styles for
certain groups and situations.

In particular, studies of CROSING – that is, people’s use of language variants
and varieties other than their “own” (those that typically correlate with their
“objective” demographic characteristics) – show us how speakers use stylistic
variation not simply as a way of infusing new meaning into “normal” speech situ-
ations and “given” social categories but rather as demonstration and continual
re-enactment of the fl uidity of the language varieties and social groups they are
“crossing” between. Coupland (2007: 137–145) provides insightful discussion of
Rampton’s (1995) pathbreaking studies of how multiracial teens in the south
Midlands of England and in London self-consciously cross in and out of Stylized
Asian English, a performative variety characterized by exaggerated use of stere-
totypical features of South Asian English, to accomplish various social ends. Among
these, crucially, are the destabilization of established social relations (e.g. adult
authority over teens) and the breaking down of clear-cut ethnic dividing lines (e.g.
white vs. Asian). Similarly, white American teens have been shown to cross into
AAVE, or at least some of its features, not to show identifi cation with African
Americans but to demonstrate affi liation with pan-global Hip Hop culture, as well
as project character traits (stereo)typically associated with streetwise African-
American teen males (e.g. toughness, “coolness”; Bucholtz 1999; Cutler 1999).

Hence, whereas Audience Design indeed allows for agentivity and creativity,
it can be argued that it still retains too much emphasis on pre-established linguistic-
social associations and so is essentially responsive after all. However, as we cau-
tioned above, people are not completely free to use whatever features they want
to accomplish the social ends they desire, and even the most creative speakers
draw upon longstanding meanings in the service of crafting new ones. Thus,
multiethnic teens in England who cross into Stylized Asian English and white
American adolescents who cross into AAVE subvert traditional stereotypical
associations between language and ethnicity precisely by drawing on these very associations. Similarly, and even more radically, Barrett (1995) shows how African-American drag queens subvert a number of demographic categories simultaneously – not through inventing new linguistic usages but by juxtaposing several stereotypical varieties that would never “normally” be found together. Namely, the drag queens use features of stereotypical (white) women’s language (e.g. hyperstandard grammar, superpolite forms), African American English (e.g. grammatical features like third person singular –s absence, lexical items like Miss Thing), and gay male language (e.g. adjectives such as fierce and fabulous) to project in their drag performances a unique identity that defies the confines of heteronormative gender and sexuality categories as well as the normative Black-white ethnic divide that pervades the American South. Hence, it seems that creativity and responsiveness go hand in hand, and that speakers capitalize on existing linguistic and social meanings sometimes to sustain them, sometimes to shape them subtly, and sometimes to turn them on their head.

Finally, there is the question of whether linguistic convergence is the only or best way to achieve psychological convergence with one’s interlocutors, or whether sometimes linguistic divergence might sometimes be more effective. For example, we saw how the interviewers in Bell and Johnson’s (1997) study seek increased closeness with the hesitant interviewee by using a feature she never once uses, the rapport-building eh particle. In addition, even in Bell’s early studies of New Zealand radio announcers (1977, 1984), the newscasters who use more RP variants for the upper class audience are not actually converging with their audience’s speech, since the upper class New Zealanders who listen to the station are actually speakers of New Zealand English and not RP. Rather, the newscasters are conforming to the audience’s expectations; in this case, expectations for what constitutes “proper” broadcast speech. In other cases, unexpected speech patterns win audience favor, as with successful drag performances and with crossing into “out-group” varieties with one’s ingroup friends.

The Audience Design model for stylistic variation does not actually preclude psychological convergence through linguistic divergence. Again, the model does not adamantly insist that linguistic convergence equals convergence with audiences’ actual speech patterns but also allows for convergence with the speech (actually or believed to be) associated with audience demographic characteristics, as well as with other demographic groups, character traits, and interactional meanings upon which speakers may look favorably (as with referee design). In addition, SAT, in which the Audience Design model has its roots, has now evolved into Communication Accommodation Theory, the latter of which holds that there are indeed many ways of increasing closeness with audience members besides linguistics convergence (e.g. Giles, Coupland, and Coupland 1991).

3 Speaker Design

As the study of stylistic variation has progressed, we have moved from unidimensional approaches grounded in quantitative correlations between linguistic usages
and social groups and focused on speaker’s reactions to external, contextual factors to multidimensional approaches that consider a full range of factors that impinge on stylistic variation, including audience, topic, setting, and especially speakers’ internal motivations to shape themselves, situations, social groups, and social orders. Because the focus is now on how speakers use variation to fashion themselves and their surroundings, current approaches to stylistic variation can be classified as speaker design approaches.

If, as such approaches assert, the social meaning of linguistic variation is located in the qualitative patterning of stylistic variation in interaction rather than the quantitative patterning of linguistic-social group variation, then stylistic variation must move to center stage in variation analysis, rather than being relegated as secondary to social-group-based variation. Indeed, Eckert (2005) has argued that such a movement has taken place, as variation analysis has progressed through three phases, or “three waves,” with increasing focus on meaning as situated in local settings rather than global correlations between linguistic variation and social group membership.

Briefly, first wave studies are those that focus on correlations between demographic categories and patterns of linguistic variation, and then read the social meaning of linguistic variation in these correlations. For example, in Labov’s (1966) study of New York City’s Lower East Side (see Figure 15.1), usage levels for the incoming prestige variant of (r), r-pronunciation, were found to be higher in higher socioeconomic class groups, and so r-pronunciation was held to be a marker of high social status. Conversely, lower social class groups retained more of the traditional r-less pronunciation, and so the latter was held to be a marker of lower status. Once variations are associated with social groups, they can be used to make stylistic meaning, again as in Labov’s (1966) study, in which New York City speakers show increased use of r-pronunciation, the feature associated with “proper,” higher-class speech, in situations of increasing formality.

Second wave studies are those in which social categories and the potential social meanings of linguistic variables are no longer grounded in predetermined global categories and meanings (e.g. socioeconomic class, standard vs. nonstandard) but rather discovered from below, via ethnographic study of locally important social and linguistic meanings. The classic example is Eckert’s (2000) study of the patterning and meaning of linguistic variation among teenagers in a Detroit-area high school, in which she finds that variation correlates more closely with social groups that are relevant to the teens (i.e. “jock” vs. “burnout” status) than with more global categories such as socioeconomic class. Further, the meanings of the variables studied, mostly those associated with the Northern Cities Vowel Shift, do not have to do simply with regionality (in this case, residence in the US Inland North) or standard vs. nonstandard speech but with locally important matters such as orientation toward the high school and its middle-class values or toward urban Detroit and its working-class norms. Because second wave studies consider a wider range of meanings for linguistic variants, conceptualizations of stylistic variation can be broader as well, and we can consider how people use variants to convey a variety of affiliations, traits, and stances, in both localized community settings and local interactions.
As we move from second to third wave studies, we focus even more on local interactions, considering how variants get their meanings in unfolding discourse rather than via correlations between linguistic features and social categories, whether global or local. Thus, third wave variation studies align with Speaker Design approaches to stylistic variation, in which, again, the focus is on how speakers use linguistic variation in interaction to shape personal identity, interpersonal interactions, and, as individual usages cohere into individual and group styles, to shape group identities as well.

Because there is such emphasis in third wave studies on (local) interaction, there is a focus on the qualitative, syntagmatic patterning of variants rather than quantitative patterns aggregated across speech styles and speakers. In addition, there is such a focus on the interactional vs. group associational meanings of linguistic variants that many researchers now consider the former to hold primacy over the latter, maintaining that linguistic features first take on social meanings having to do with taking up stances and projecting character traits and only later take on social group meaning, as particular groups become associated with particular stances and identity projections. For example, a variant like -ing may carry social group associations such as “working class,” “male,” and southern US regionality; however, it does so only because it has been often used in interaction to project meanings associated with members of these social groups, for example, hardworkingness, being down to earth, not “putting on airs.” In other words, third wave approaches take so-called second order indexical meanings (i.e. meanings associated with stances and character traits; e.g. Ochs 1992) to be primary, and first order indexical meanings (group associational meanings) to be derivative, not central as they were in first and second wave studies. This is an important and intriguing idea but one that remains open to question, as discussed below. For now, it is sufficient to acknowledge that variants can and do take on both group associational and interactional meanings and that speakers draw on both as they use stylistic variation to make social meaning in interaction.

Indeed, variants may carry a host of meanings, and we can speak not only of a variant’s first and second order indexical meaning but its “indexical field” – that is, a constellation of related meanings associated with a particular variant. For example, Eckert (2008: 467–471) outlines a number of sociolinguistic studies of quite disparate practice groups in the US, including Orthodox Jews, high school “nerd” girls (Bucholtz 1996, 2001), and gay men (Podesva 2004, 2006; Podesva, Roberts, and Campbell-Kibler 2002), all of whom show high usage levels for released /t/ in word positions where in American English /t/ would normally be unreleased or flapped. The quantitative component of each study is complemented with qualitative examination of how released /t/ is used in discourse, revealing that each different group capitalizes on similar, related meanings: In the US, released /t/ is considered to be hyper-articulate and so can be used to index such qualities as intelligence, carefulness, and precision, all of which are important to all the groups listed above, at least in particular situations, at particular moments in conversational interaction. At the same time, the stances and qualities associated with released /t/ may be associated with different local meanings in each
different community of practice – for example, with nerd girls in one context and learned Jewish men in another.

The various studies of released /t/ also illustrate another hallmark of third wave and Speaker Design studies – the inclusion of a wider range of types of variables than were considered under earlier approaches to variation and style, including widespread, stable variables like released /t/ in addition to those undergoing localized changes. Current studies also move beyond segmental phonological variation to consider lexical, discourse/pragmatic (e.g. *eh*, tag questions), prosodic, and voice quality features, as well as even components of features. For example, Podesva (2007) shows how a young gay male medical student, Heath, uses falsetto voice quality differently in different interactional situations to achieve different identificational and interactional ends. Broadly, Heath uses a greater number of falsetto utterances in a casual gathering with his friends than in a conversation with his father or an interview with a patient. On a more fine-grained level, Podesva dissects Heath’s falsetto uses to show that they are also of longer duration, have a higher maximum pitch and greater pitch range with friends than in the other two interactions. At first glance, Heath’s stylistic variation seems to be rooted in audience design, in that Heath uses more falsetto, a feature associated with gay male speech, when talking with close friends to whom he is “out” than with an authority figure/family member, such as his father, or with a patient in a professional medical setting. However, detailed analysis of what Heath is talking about as well as how he says it reveals that Heath is doing Speaker Design work, using falsetto in the social event to convey an “expressive” stance and to portray himself as a “diva” – that is, a flamboyant individual who loves to take center stage, is highly image conscious, and expresses strong opinions, usually negative ones. And while this character type is associated with gay men, it is not simply a “gay” identity, since there are many ways of being gay and many facets to every type of identity, whether gender, ethnic, regional/local, and so on.

Heath’s diva performance also serves to point out the importance of self-conscious, performative speech in current approaches to stylistic variation. As noted above, self-conscious styles are ubiquitous in both research and non-research contexts and likely to become more so as people gain increasing exposure to a wider range of varieties and variants out of which they can craft their speech styles, as well as increasing freedom (necessity?) to shape novel identities in a post-modern world, in which traditional structures and strictures recede in the face of increasing social fluidity (Coupland 2007: 29–30, 177–188). Coupland further points out that it may be especially fruitful to study the language of highly performative events (“high performance”) such as media and stage performances, since high performances draw attention to performativity, thereby reminding us that all linguistic usages, as well as the personal and social identities crafted through them, are indeed performances, even those that are seemingly “mundane.” And because they are not really “natural,” identity categories, as well as connections between identities and their associated linguistic usages, are open to scrutiny, critique, and change. For example, Coupland (2001) demonstrates how a radio host and guest speaker use both content and linguistic features of various
sorts to portray a variety of flagrantly hyperbolic personae, including unsophisticated Welsh working class men and women. Crucially, though, the performers are not poking fun at their Welsh compatriots but rather using their obviously stylized performances to poke fun at their own clearly overblown depictions of “typical” Welsh people and of the act of essentializing via stereotyping.

Finally, third wave studies of language style increasingly are taking into account listener perception as well as speaker production, since the social meaning of language variation depends not only on what speakers wish to convey but crucially also on how listeners interpret what they say. Today’s perception studies are often highly experimental and quite technologically sophisticated, as researchers seek to tease out exactly which linguistic features listeners are attending to in making their determinations of social meaning. For example, Campbell-Kibler (2007) tests the effects of a single variable, (ING), by digitally manipulating speech excerpts to create pairs of utterances differing only in the realization of (ING) as –ing or –in. Her fine-grained study shows that -in and -ing convey a range of meanings beyond simply “nonstandard” and “standard,” including southern US regionality (-in), educatedness and articulateness (-ing). Interestingly, for one stimulus speaker, -ing carries such unexpected associations as accentedness (rather than lack of accent), gayness and urbanity. (See Campbell-Kibler 2010 and Preston, this volume, for more on language attitude and perception studies.)

4 Cautions Regarding Third Wave Studies

Despite the many insights that have come out of third wave/Speaker Design approaches to stylistic variation, we might still want to approach such views with caution. It is easy to get caught up in the interactional moment and forget that, as much as we want to celebrate speaker agentivity and creativity, we are all bound by structures and norms, and we cannot create meaningful styles out of nothing. We must draw on pre-existing associations between linguistic usages and social meanings, both interactional and group associational. On an even broader scale, interactional stances and identity categories are implicated in social orders and ideologies about social order, so that when a person performs a working class identity, they are situating themselves within an entire socioeconomic hierarchy, and very often reinforcing this hierarchy, even if elements of their linguistic performance sometimes work to resist or undermine it. Similarly, performing a fairly traditional male or female identity implicates us in a longstanding and deep-seated hegemonic gender order, complete with its ingrained inequities. And further, as with the drag queens in Barrett’s study (1995), even if we purposely craft non-traditional identities, we nonetheless must use linguistic resources with longstanding associations with traditional social groups and/or character types (and stereotypes).

In addition, as important as self-conscious identity performances may be, it does not seem intuitively correct that all speakers in all conversational interactions are deliberately and self-consciously projecting and crafting stances and identities
but rather that sometimes our language styles might be less self-conscious, sometimes to the point of seeming automaticity. However, even automaticity is a choice, adopted perhaps to conserve effort, to avoid calling attention to ourselves, or to maintain a particular status quo (cf. Myers-Scotton’s (1998) Markedness Model for code-switching, in which she discusses the notion of using unmarked codes to preserve existing Rights and Obligations).

Further, as much as we may strive for creative stylistic usages and identity/interactional moves, our linguistic repertoires are limited, even if they are broader today than ever before. And even if we are aware of and can control our usage of particular forms we wish to use in a creative way, there is still the issue of listener uptake; and although I may use a feature to enact a particular stance, this does not mean that my hearers will perceive my intended meaning. For example, one might use a stereotypical feature of the Pittsburgh dialect such as [a:] for /aw/ to project “localness”; however, listeners may perceive [a:] as “incorrect” or “lower class” rather than “local” (Johnstone and Kiesling 2008).

Hence, to truly understand the nature of stylistic variation, it is necessary to consider the inevitable interplay between agency and structure, between the initiative and the (at least relatively) responsive, between creativity and linguistic limitations, and between speaker intention and listener understanding. In other words, as far as we may have sailed over the first and second waves of variation study to reach the third, we would do well to remember that the three waves are part of the same ocean, that elements of all three “waves” of study were present from the outset of variation study (see Eckert 2005), and that the best current studies will approach the social meaning of linguistic variation from a range of perspectives, for example, investigating the qualitative patterning of linguistic variation in discourse against the backdrop of the large-scale quantitative patterning of features across social groups and situations, or, conversely, augmenting studies focused on big-picture patterns with ethnographic and/or discoursal investigation that helps reveal what these patterns actually mean to the speakers who use them.

For example, Podesva’s (2007) case study of Heath’s falsetto use is set against the backdrop of previous studies of voice quality differences across languages, dialects, and speaker groups (e.g. males vs. females; gay vs. straight males), thus situating Heath’s individual usages within larger stylistic and social contexts. Conversely, my involvement in the large-scale study of language variation across ethnic groups in Robeson County, North Carolina, and my puzzlement over the unclear patterns for r-lessness that emerged, prompted me to investigate how this feature was used in unfolding conversation between a Lumbee Indian and an African-American friend. This led to the discovery that r-lessness carries multiple and sometimes conflicting social meanings (e.g. African-American ethnicity, southern regionality, vernacularity) that are variously deployed in ongoing conversation, thereby revealing why it resists straightforward patterning when data are aggregated across social groups (Schilling-Estes 2004).

Another angle to be further explored is the discourse analytic investigation of listener uptake in addition to speaker moves. Hence, for example, Nielsen (2010)
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draws upon positioning theory (Harré and van Langenhove) to show that a teenage African American’s use of falsetto is more prominent (i.e. of higher pitch, wider range and longer duration) when he is engaged in so-called “forced self-positioning” (i.e. responding to how his interlocutor positions him) than “deliberative self-positioning” (i.e. projecting his own personal identity and point of view), perhaps because his interviewer often positions him wrongly (in the interviewee’s view) and the interviewee responds to this by using heightened falsetto as part of the projection of an indignant stance.

Just as linguistic variables derive their meanings from both local interactional usages and wider-scale patterns, from both speaker production and listener perception, so too are they only meaningful in the context of other variables – in other words, as part of individual and group styles. Hence, as tempted as we might be to focus on individual variables and variants, and even parts of individual features, now that we have the computational means to do so, we would be wise to heed the caution of Auer (2007: 12), who points out that “the meaning of linguistic heterogeneity does not (usually) reside in individual linguistic features but rather in constellations of such features which are interpreted together. . . . [W]e do not interpret single variables but a gestalt-like stylistic expression” (cited in Soukup 2011: 350). For example, while a feature such as released /t/ might carry generalized meanings associated with clarity and precision, the specific meanings it indexes for a particular group or particular individual come about only through its co-occurrence with other stylistic features in a given context. Thus, released /t/ may index “educatedness” when it co-occurs with -ing in the speech of Orthodox Jews or “prissiness” when it co-occurs with falsetto in the speech of a gay man who often projects a flamboyant “diva” style (e.g. Eckert 2005, citing work by Benor 2001 and Podesva 2004).

Finally, even if we talk about variants as pointing to fields of meanings that are only narrowed in their stylistic (and interactional) contexts, sometimes the notion of “indexical field” breaks down, too, since there are some (perhaps many) variants that defy association with a single core meaning, however general it may be. One obvious illustration is r-lessness, since it carries oppositional rather than related meanings in different varieties of English (e.g. proper British vs. Standard American) and even within single dialects and individual speakers. For example, the Lumbee Indian mentioned above used r-lessness to index both vernacularity and upper-class status, calling upon the feature’s current associations with non-standardness as well as its historic association with upper-class southern US speech. And even though we might argue that variants undergoing change, such as r-lessness in the US, are not yet stable enough to have acquired a coherent indexical field (Eckert 2005), the association of r-lessness with proper British English is centuries old and literally global in scope, and so we have to conclude that at least some variants do not have widescale meanings or meaning fields and are not likely to acquire them any time soon.

Hence, as exciting as it may be to feel that we are getting to the heart of the social meaning of linguistic variation by uncovering the meaning (fields) of each individual variant that comprises an individual or group style, we would do well
to remember that variants, by classic definition, can have no social meaning apart from those which they are (initially) arbitrarily given by language users, and so variants need not have related meanings across speech communities. Indeed, if we as linguists start believing that a variant like released /t/ “naturally” connotes precision because it is fully pronounced, we are guilty of the same “iconization” (Irvine 2001) of the arbitrary link between linguistic form and social meaning that non-linguists routinely engage in when, for example, equating slow rate of speech with slowness of speakers’ mental processes, hypo-articulation (e.g. word-final consonant cluster reduction in words like des’ for desk) with sloppiness, or paradigm regularization (e.g. myself, yourself, hisself) with uneducatedness. Released /t/ may indeed connote “precision” in word-final position in American English, but it sounds artificial and affected in flapping contexts (e.g. letter, water); conversely, in British English fully articulated /t/ is “proper” in letter and water, but so is hypo-articulated /r/ in these very same words.

Eckert admits that the connection between hypo- or hyper-articulated variants (and hypo- vs. hyper-articulated styles more generally) and social meanings (like “precision”) indeed carries a bit of iconicity but still maintains that the phonetic make-up of some features may predispose them to take on certain types of social meanings more readily than others. This idea bears further investigation, but again we must remember that the social meaning of linguistic variation is at heart social, not linguistic, and variants and varieties can only take on the social evaluations we give them. Because linguistic features do not have inherent social meanings, we need to be cautious in re-ordering first and second order indexical meaning, since it is unclear from where socially meaningless features would originally derive their interactional meanings if not from association with speaker groups who use them. As Labov so aptly noted decades ago, “if a certain group of speakers uses a particular variant then the social values attributed to that group will be transferred to that linguistic variant” (1973: 25).

Asserting the primacy of speakers over linguistic material in no way undermines third wave approaches but rather strengthens them, since current approaches to stylistic variation, above all, focus on how speakers make meanings, and not on how linguistic forms somehow inherently convey meanings apart from the speakers who use them. And in this, even the most seemingly radical third wave approaches stay rooted in classic variation analysis, since the whole point of sociolinguistics is that language and social life are intricately interconnected, and we can never fully understand language without investigating how and why people use it as they do.

NOTE

1 An update of Eckert’s widely circulated (2005) manuscript was published while this chapter was in press. Readers are encouraged to consult her most recent discussion, which refines and develops her original arguments (Eckert 2012).
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Social class is a central concept in sociolinguistic research, one of the small number of social variables by which speech communities are very commonly stratified. Trudgill (1974: 32) states that “most members of our society have some kind of idea, intuitive or otherwise, of what social class is,” and most people, both specialists and laypeople, would probably agree with this. It is ironic, then, that social class is often defined fairly loosely in studies of linguistic variation and change, and linguists do not frequently take advantage of the findings of disciplines that make it their business to examine social class, particularly sociology, to inform their work. As Foulkes (2006: 639) notes, “Recent studies tend to avoid the complex measuring systems that were used in early work [. . .]. Instead, ‘class’ is often no more than a general label for the type of neighborhood being investigated.” Individuals are typically placed in a social hierarchy despite the lack of a consensus as to what concrete, quantifiable independent variables contribute to determining social class. To add to the irony, not only is social class uniformly included as an important variable in studies of linguistic variation, but it regularly produces valuable insights into the nature of linguistic variation and change. Thus, this variable is universally used and extremely productive, although linguists can lay little claim to understanding it.

1 Sociological Background

The theoretical consideration of the notion of social class in modern times was sparked by the dramatic reorganization of society resulting from the industrial revolution. This overhaul of the social and economic order, which transformed a
disseminated, agricultural population into an urbanized one as workers gathered in factory centers, brought about the system of industrial capitalism, beginning in England in the second half of the eighteenth century. It spread to other Western countries in the nineteenth century, notably France, Germany, and the United States, and expanded world-wide as the twentieth century progressed.

The term sociology was coined in 1838 by Auguste Comte (1798–1857), a French philosopher and social reformer, in his *Cours de philosophie positive* (1830–1842). Nearly a century and a half later Wright quoted Stinchcombe as saying that “Sociology has only one independent variable, class” (Wright 1979: 3). This may be an extreme position, but sociologists certainly agree on the centrality of social class to the understanding of social structures, and the sociological literature on class is vast, reflecting the diversity of views on the subject.

Karl Marx (1818–1883) is considered by many scholars to be the founder of economic history and sociology, and he developed the first and one of the most influential theories of social class. Marx was a theoretician, but he was an activist as well. Within his larger project of writing the history of all human societies, he took as his object of special study the newly developed system of industrial capitalism. With his theme of the history of society as the history of class struggles, he emphasized the economic aspect of class stratification. His goal was social reform: he believed that the polarization of the owners of the means of production versus the labor force would increase, that revolution would ensue, that the workers would be victorious, private ownership of the means of production would be abolished, and a classless society would be established.

Max Weber (1864–1920) is the second “classical” theorist of social class. While Marx promulgated socialism, Weber supported industrial capitalism and was opposed to socialism. He agreed with Marx that ownership or non-ownership of property is fundamental in determining the life-chances of an individual or a class, but he added the dimensions of power and prestige as interacting factors creating hierarchies. He introduced the concept of social stratification and elaborated a complex, multi-factored social structure.

Two central components of social class, then, are (i) the objective, economic measures of property ownership and the power and control it confers on its possessor, and (ii) the subjective measures of prestige, reputation, and status. The most simplistic social classification is based on occupational categories, with non-manual (“white collar”) occupations being rated higher than manual (“blue collar”) occupations. This factor combines the objective and subjective components, demonstrating that factors other than income are important in the assessment of social status, since skilled tradesmen such as plumbers and carpenters typically earn more income than lower-level white collar workers such as clerks and cashiers. Similarly, a highly trained professional such as an architect may well earn less than the builder who executes his designs. The reliance on occupational categories as a measure of social class is very common in social science research.

The task of the researcher interested in linguistic variation is to find a way to determine, with reliability and validity, the social ranking, social class, or both, of the members of the speech community under investigation. One sociologist who
is frequently quoted as a guide is W. Lloyd Warner, although his work is, in practice, not fully utilized by sociolinguists.

Warner and his associates represent the view that status groups form the foundation of social stratification. As a social anthropologist, he set out to study in detail (published in six volumes) contemporary American society in the early twentieth century by examining a single, self-contained city. The fieldwork in the small New England city of Yankee City, population about 17,000, involved from five to 15 researchers at any given time. They interviewed 16,785 individuals, most of them repeatedly, over the period from 1930 to 1934. Following the methods of social anthropology, they combined interviewing with observation, gathering a wealth of detailed information that reaches astonishing proportions. In the matter of social class, they followed the indications of their informants, who exhibited a keen sense of the relative social rank of their acquaintances. The researchers quickly learned that neither income nor occupation was the sole predictor of rating on the social scale. The characteristics that were called into play included education, occupation, wealth, income, family, intimate friends, clubs and fraternities, manners, speech, and general outward behavior.

Warner generalized the methods used in Yankee City and in later studies and published a set of procedures for determining social class by two alternative methods: Evaluated Participation and the Index of Status Characteristics (ISC; Warner et al. 1960). The explicit purpose of this work was to provide tools for researchers in other fields to use in assessing social class among the populations of their respective interest. The method of Evaluated Participation provides a set of instructions for, in effect, eliciting the types of information that were gathered in the Yankee City study to determine how community members rated each other on the social scale. The ISC is designed to be simple and inexpensive to use, requiring little skill, little time, and the elicitation of limited, easily obtained information. It was empirically derived and, following testing and refinement, it was validated against the scale of Evaluated Participation which had been calculated for 303 families in a small midwestern city that had been studied in depth. In these respects Warner’s ISC seems to be eminently suited to use in survey-type studies of speech communities.

The writings of Warner et al. (1960) are firmly grounded in an awareness of the necessity of tailoring any study to the particular characteristics of the community being investigated. They advise against a blanket, unthinking application of their procedures to any social science research project. At the same time, their methods rest on solid research, and they have carefully tested their results and made sensible modifications accordingly. As a tool for judging social class, in a survey study in North America (and, perhaps with adjustments for local conditions, in other industrialized societies), it offers a set of procedures that a linguist could defensibly rely on.

One alternative to Warner’s ISC is provided by the occupational prestige ratings and the Socioeconomic Index (SEI) developed by the National Opinion Research Council (NORC). In 1947, the NORC published the North-Hatt scale of occupational prestige, which listed prestige ratings for 90 occupational titles.
In 1950 the US Census Bureau began collecting data on income and education for incumbents of certain occupations, of which 270 were listed that year. To address the need for a ranking of the social status of all occupations, Duncan (1961) calculated a Socioeconomic Index by performing a multiple regression of the NORC prestige ratings on the income and educational levels for those occupations that were common to both the NORC and the Census listings and then extrapolating to occupational titles listed by the Census but not included in the NORC study.

This work has been updated, most recently in 1989. The NORC has reported prestige ratings (Nakao and Treas 1990) for the 503 occupational titles on which the Census Bureau gathered data in 1980, and they also report SEI assignments (Nakao and Treas 1992), using the methods developed by Duncan, with adjustments made for current levels of educational attainment and income. This scale has the advantage of being applicable to speakers on the basis of occupation alone, despite Warner’s findings that many more factors may be involved in detailed social class categorizations and ratings/rankings.

2 Treatments of Social Class

To illustrate the variety of treatments of social class and some of the considerations that it raises in studies of linguistic change and variation, we turn now to a review of some of the studies that have included social class as an independent variable.

2.1 The New York City department store survey

This study by Labov (1972) is unique in that three strata defined by prestige were established first, and then subjects were randomly (and as exhaustively as possible) recruited from within each stratum. Stratification was defined by the prestige of the three New York City stores that were studied: Saks Fifth Avenue, Macy’s, and S. Klein’s. The relative prestige of the stores was established by a number of independent factors: the location of the store; the amount of advertising in the New York Times, with its middle-class readership, and in the Daily News, a working-class newspaper; the relative cost of goods in the three stores, the form of prices quoted in advertising copy, and the relative emphasis on prices; the physical plant of the three stores; and information on the regard held by employees for working conditions at the three stores. Thus the social stratification of the three sites was firmly established, while, in this unusual case, the study controlled for occupation: the interviewees were predominantly salespeople, plus a small sample of floorwalkers, cashiers, and stockboys.

2.2 The Lower East Side

Labov’s study of the Lower East Side of New York City (1966) had the benefit of following in the footsteps of a survey of the same area by the Mobilization for
Youth program (MFY), which had been conducted the year before Labov’s exploratory interviews. MFY was a publicly funded agency with the mission of attacking the problem of juvenile delinquency. The research design for the MFY study was developed by faculty at the New York School for Social Research at Columbia University, who offered Labov the opportunity to use both the demographic data that had been collected for MFY and the roster of interviewees. Thus, he had access to far more exact information on the prospective speakers than linguistic researchers are normally able to gather on their own.

The MFY approach to social class explicitly chooses to rely on factors of production – that is, on objective factors – rather than on consumption, or status – the expression of choices of lifestyle (Michael 1962). Warner, as we have seen, and also the NYC department store survey, rely instead on factors that reflect status. Persuasive arguments seem to be possible for both sides.

The MFY survey established a 10-point scale of socioeconomic class, based on the occupation, education, and income of the informants. The occupational rank was determined by four categories (Michael 1962: 213):

1. professionals, managers, and officials (salaried and self-employed)
2. clerks and salesmen
3. craftsmen and foremen; self-employed white collar and blue collar workers – including small shopkeepers
4. operatives, service workers, laborers, and permanently unemployed persons.

The levels for education were as follows (Michael 1962: 214):

1. completed some college or more
2. finished high school
3. completed some high school
4. finished grade school or less.

The MFY staff determined each family’s income, and from that they calculated an “adjusted weekly income per equivalent adult” by a procedure that counted children as carrying less weight than adults. The actual income figures are out of date, but the qualitative description can be applied at any time:

1. more than the national median
2. more than the Lower East Side median but less than the national median
3. more than the minimum wage but less than the Lower East Side median
4. less than the minimum wage.

The three factors of occupation, education, and income were weighted equally in calculating the index score, which ranged from 0 to 9. The resulting range of index scores was grouped into four categories, when grouping was desired: lower class, working class, and middle class, the last of which was divided into lower middle class and upper middle class when such a division was indicated.
2.3 Philadelphia: The neighborhood study

The work of the Language Change and Variation project in Philadelphia in the 1970s, reported by Labov (2001), strives to discover the social location of the innovators of linguistic change and therefore focuses on the embedding of individuals in their neighborhoods. To this end, five neighborhoods were selected to represent the range of community types within the urban area, and one block in each neighborhood was selected as an entry point to the community. They include three working-class neighborhoods within the city, a lower middle-class suburb adjoining the city to the west, and a middle- and upper middle-class suburban community.

For purposes of this study, Labov constructed a socioeconomic status index based on education, occupation, and residence value. For each factor, six levels were defined, and an individual’s index was calculated as the unweighted sum of the scores for each factor. The categories are as follows:

Education
1 professional school
2 college graduate
3 some college
4 high school graduate
5 some high school
6 grammar school

Occupation
1 professional, owner-director of large firm
2 white collar – proprietor, manager
3 white collar – merchant, foreman, sales
4 blue collar – skilled
5 blue collar – unskilled
6 unemployed.

Residence value was ranked in increments of $5,000, with the lowest level being up to $4,900 and the highest being $25,000 and above. Much more than education and occupation, this factor is critically dependent on time and place and must be set separately for each community to be studied.

As attention was also focused on the neighborhoods themselves as units to be studied, Labov sought to characterize each neighborhood on a socioeconomic scale to judge the adequacy of the sampling of the range of block types in the urban area as a whole. As might be expected, the neighborhoods are most clearly differentiated by house value, although the two Irish neighborhoods, at the lowest levels of the scale, are about equal on this dimension. Occupation shows a similar distribution. The modal value for two of the working-class neighborhoods is unskilled blue collar jobs, while residents of the third urban neighborhood are concentrated in skilled blue collar jobs. The lower-middle-class suburb is characterized by the lower level of white collar positions, and the middle- and upper-middle-class suburb is inhabited predominantly by professionals, proprietors, and managers. Interestingly, education does not distinguish the neighborhoods well,
since for all neighborhoods, the modal level of educational attainment is high school graduate.

Thus house values rank a neighborhood by social status, but occupation ranks an individual by social status. Education in this case does not contribute to the social stratification of speakers. This is a provocative finding, since it is intuitively understood that education affects an individual’s speech. To pursue this issue, linguists might treat education as a separate variable, independent of social class.

The Philadelphia study also considered two additional factors in the effort to assess the full character of an individual’s social position within the community: house upkeep and social mobility. House upkeep is important to a person’s local identity, but it does not apply outside the immediate area. Social mobility is judged as a comparison of the head of household’s occupation with that of his or her parents, whether higher, equal, or lower.

### 2.4 Norwich, England

For Trudgill’s study of Norwich (1974), he set up a social class index based on six parameters: (1) occupation; (2) father’s occupation; (3) income; (4) education; (5) locality; and (6) housing. Each parameter was rated with an index score from 0 to 5, and the scores for all categories were summed without weighting.

The occupational scale presents a familiar ranking:

1. professional workers  
2. employers and managers  
3. other non-manual workers  
4. foremen, skilled manual workers, and own account workers  
5. personal service, semi-skilled, and agricultural workers  
6. unskilled workers.

To obtain information on the sensitive subject of income, Trudgill employed the ingenious technique of showing speakers a card on which salary and wage ranges had been written and asking which range described the income of the person whose occupation was the determinant of occupational status for that speaker (that is, self, husband, or father). With this technique, there were no refusals to give the requested information when it was known to the speaker.

Trudgill’s “locality” is the neighborhood in the city of Norwich where the speaker lives, subjectively ranked for desirability on the basis of the researcher’s native knowledge of the city. Indeed, whether or not one is a native insider, researchers who conduct in-depth studies of speech communities should familiarize themselves enough with the community to be able to judge the relative prestige of neighborhoods within that community.

Trudgill’s measure of housing is rather complex, based on three factors: house ownership, age of the house, and building type, with levels selected as measures of the relative prestige of this most conspicuous aspect of a speaker’s attainment of lifestyle.
With an index of prestige assigned to each of the six factors, the social class index for each speaker can be calculated. In Trudgill's sample, the actual range of the index is 3–26, out of a possible 0–30. Among the 60 speakers, there are a maximum of eight with any one score, with a concentration of speakers in the lower half of the range, from 6 to 13.

Trudgill observes that with multiple measures contributing to a socioeconomic index, it would be possible to examine each one separately and determine which one, or which combination, provides the greatest explanatory power for the study of linguistic variation. This is a tantalizing point; such a study would be invaluable, but, to the best of my knowledge, it has never been done.

2.5 Anniston, Alabama

Feagin (1979) used her knowledge as a native of Anniston, Alabama, to select upper-class and working-class informants, using an informal Evaluated Participation procedure. She is exceptional among sociolinguistic researchers in that she checked her class assignments by calculating Warner's ISC (Warner et al. 1960) for all the speakers in her primary sample, using the scale that Warner established for Yankee City to define the social classes. The exercise is as much a confirmation of Warner's method as of Feagin's, since, as Warner says, the points of demarcation of the social classes properly should be established for each individual community by the methods of Evaluated Participation. Thus, there is very good agreement between Feagin's classification of her speakers and Warner's categorization. Her 27 upper-class speakers include four who would be rated as strongly upper middle class on Warner's scale, and her 41 working-class speakers include five who would be classified as lower middle class by Warner, plus one who would be classified as lower class by Warner.

2.6 Sydney, Australia

While most researchers do not seem to think that occupation by itself is a sufficient determiner of social class, Horvath (1985) used it alone effectively in her study of variation and change in Sydney. She categorized speakers on the basis of occupation, following Congalton (1962, 1969), in which a random sample of 303 Sydney citizens ranked 135 occupations, with rankings later confirmed in a follow-up study of university students. Horvath conflated Congalton's four classes to three, which she termed "Middle Class," "Upper Working Class," and "Lower Working Class." "The Middle Class" consists of professionals and skilled workers who are professional-like, including, for example, accountants, real estate agents, and pharmacists. The "Upper Working Class" consists of less skilled workers, for example, flight attendants, arc welders, builders, chefs, and salesmen; and the "Lower Working Class" consists of unskilled workers such as truck drivers, metal workers, and factory workers.
2.7 Panama City, Panama

Cedergren’s study of Panama City (1973) derived a ranking of speakers by an index calculated without weighting based on education, occupation, and barrio of residence. Education ranges from less than junior high school to at least some college. Occupation is a simple four-point scale of managers, professionals, and proprietors; white collar workers; skilled workers; and unskilled laborers and domestic workers. The ranking of the barrio differs the most from the criteria that are encountered in North America and Europe: each barrio was ranked on the basis of the average number of persons per room in each household, the proportion of households with a private toilet, and the proportion of households with a refrigerator. With an index calculated for each speaker, Cedergren divided her sample of 79 subjects into four groups. The top group consists of less than 10 percent of the sample, the next two groups are each about a quarter of the sample, and the lowest group is just under half the sample.

Thus there are many different ways to stratify a society, both in number of strata and in criteria for stratification. The researcher should try to employ an approach that has validity for the goal of the particular project and type of community. Most researchers, however, are not in a position to measure the validity of any approach. As Warner demonstrated, that is a study in itself. In practice, researchers typically formulate an index of social class, usually based on a combination of measures, which are likely to include both objective and subjective indices. The resulting index scores are grouped into larger categories, and correlations are calculated between the dependent variable and both the index, with its finer scale, and the larger categories, with their grosser scale.

3 The Linguistic Market

Sankoff and Laberge (1978) took a new approach to the ranking of speakers on the basis of their place in society, one which was geared to be specific to language use in a way that social class itself may not be. They adapted the notion of “linguistic market” from Bourdieu and Boltanski (1975) to construct an index intended to measure the extent to which a speaker’s situation in life requires the use of the standard language, and then applied this index to the study of language variation and change in francophone Montreal. While the 1989 recalculation of occupational prestige in the United States (Nakao and Treas 1990) employed 1,250 lay judges, Sankoff and Laberge based their index on ratings by just eight judges. However, these were not lay judges; they were practicing sociolinguists who were intimately familiar with the sociolinguistic relationships within the Montreal francophone community. They were each asked to rank the 120 speakers in the Montreal corpus on the basis of “the relative importance of the legitimized language in the socioeconomic life of the speaker.” As a basis for making their decisions, they were provided with a description of the socioeconomic life history of each speaker. This included all the information available to provide as full a picture of each indi-
vidual’s economic context as possible, including occupation, job description, details about parents or spouses, and occupation of the head of the household. The agreement among judges on the ranking of individuals was strikingly high, with a rate of disagreement ranging from less than 2 percent to less than 10 percent for all pairwise comparisons of judges. This finding echoes the observation by researchers on occupational prestige that such rankings are highly reliable.

From the rankings, Sankoff and Laberge (1978) calculated a linguistic market index for each speaker, and then they examined the correspondence between the index and a parameter indicating the tendency to use the standard variant for each of three linguistic variables. An extension of this method would be to use the same kind of ranking technique to develop a linguistic market index and match it to occupation, just as the NORC socioeconomic index is matched to the occupations listed by the US Census Bureau. This would respond to the objection many linguists have raised that indices of social class do not adequately relate to linguistic behavior. Like virtually every measure of social class, it would be strongly tied to an individual’s occupation, but it would embody other dimensions as well.

The goal of studies of linguistic change and variation is to determine what can be learned about language from the differences in linguistic behavior of people of different social positions. Therefore, the determinants of social position that a linguist considers must be ones that are actually relevant to linguistic variation. Social factors that can realistically be judged – or better, can positively be demonstrated – to affect linguistic behavior are ones that should be included in a measure of social class. These might include an index of the linguistic market, as discussed above. Social mobility is another factor that would plausibly have a strong effect on a person’s speech and could be incorporated into a linguist’s conception of social class. The same holds for orientation towards or away from the local community, which was found to play a major role in Labov’s (1972) study of Martha’s Vineyard and has been shown to carry weight elsewhere as well (Wolfram et al. 1999; Feagin 1998). In the spirit of Warner’s work on Evaluated Participation, another possible component of “sociolinguistic class” might be judgments by peers of who is an “effective speaker.” In Labov’s search (2001) for the innovators in sound change, where all indications point to people who are central figures in their local neighborhoods, the ranking by individuals of their peers as “good,” “average,” or “poor” speakers could be a promising avenue for investigation.

4 Subcommunities

Milroy (1980) objects that the large groupings derived from calculation of an index or other means “do not necessarily have any kind of objective, or even intersubjective, reality” (1980: 14). Membership in a particular group, she says, while serving as an expedient for the researcher, does not necessarily form an important part of the speaker’s own definition of his or her social identity. She introduces the notion of community in a specific, technical sense, as a cohesive group to which people
have a sense of belonging, that is rooted to a particular locale. Indeed, there are numerous studies of such small, closely knit, territorially based communities or subpopulations within larger speech communities. They are on a different scale from the survey-type studies of entire urban areas, and they clearly call for different methods, as she amply demonstrates in her own work in Belfast.

In one such case, Dayton (1996) studied a network of African American Vernacular English speakers in Philadelphia. She observes that, in the broad perspective, her speakers would be classified as urban working-class. A more detailed view would note distinctions that are significant to the speakers themselves. For one, the women were more upwardly mobile than the men. The women had high school diplomas, some of them had some college education, and they expected their children to go to college. Among the men, on the other hand, only half had high school diplomas, and none had completed any years of college. Most of the speakers had full-time jobs, and the women’s jobs tended to be of higher status. They held administrative, secretarial, and clerical jobs, while the men were factory workers, janitors, restaurant workers, and maintenance men. The locally meaningful perspective relates to the African-American definition of class, which differentiates between those who hold a job (and are therefore working-class) and those who do not. The men in her sample described the women as “middle class,” recognizing their upward mobility.

Eckert (1989, 2000) provides another example of a case in which the circumstances of the community under investigation compels a focus on local values. Her study of a high school cohort in suburban Detroit reveals the self-defined social groups of “jocks” and “burnouts” to be fundamentally opposed to each other in multiple ways. The jocks are oriented toward the corporate structure of the school and stand to gain rights, privileges, and power by cooperating with the middle-class, adult-oriented institutions around them. The burnouts see little advantage in what the school offers them, as they will not go on to the college and professional training that the jocks look forward to. The burnouts are connected rather to the world outside the school, which is where they will work and find entertainment and social life after graduation, and in the meantime the school offers them only restrictions. This opposition of relationship to the school and all the structure it embodies sets the stage for a permanent state of conflict between the two groups, which is expressed in all the symbolic behavior the students have at their command, including language.

Rickford’s (1979, 1986) fieldwork in Cane Walk, Guyana, provides a further example of a small community of speakers that must be understood on its own terms. In the context of an East Indian sugar estate community, the social class divisions that are appropriate to an industrialized economy were not applicable. Instead, Rickford found that there were two groups, which could be called social classes, except that they were motivated by such opposed ideologies that they could be taken for different universes. On the one hand, there was the Estate Class, composed of fieldworkers on the sugar estate who performed unskilled, labor-intensive jobs and occupied the lower stratum of the local society. The opposite group was the Non-estate Class, consisting of drivers and foremen on the sugar estate, as well as clerks, shopowners, and skilled tradesmen.
Like the jocks and burnouts in Eckert’s study, the two groups differ dramatically in their opportunities for advancement. Members of the Non-estate Class are able to gain increments in income and power, while the efforts of the Estate Class to better their situations are rarely successful. At the same time, the speech of the Estate Class members is overwhelmingly creole, while the speech of the Non-estate Class members is much closer to Standard English. Rickford proposes that members of the Estate Class use creole by choice, “as a revolutionary act” (1986: 218), to express solidarity with their class and opposition to the system that deprives them of upward mobility.

Cheshire (2005) provides an example of social class differences tied to sociolinguistic variation in a feature of discourse, the marking of discourse-new information. Adolescents in each of three English towns were categorized as to whether they attended school in a middle-class or a working-class neighborhood of the town. Even with such a rough characterization of social class, systematic differences were found among the groups differentiated by sex and class in the discourse/pragmatic marking of new information.

5 Social Class and Linguistic Variation

In determining the relationship between social class and variable language use, there are three cases to consider: stable variation, change from above (that is, from above the level of consciousness or social awareness), and change from below the level of social awareness. The linguistic variants that may be involved in stable variation or change from above may be prestige forms or stigmatized forms. In change from below, “there is no important distinction between stigmatized and prestige forms: the speech form assumed by each group may be taken as an unconscious mark of self-identification” (Labov 1966: 331).

Stratification by social class is not enough to diagnose linguistic change in progress. Since “change” means increasing use with the passage of time, the distribution of variants in apparent time is essential in determining whether a linguistic variable is undergoing change. The distribution of variants across contextual styles also provides strong evidence for the processes that are at work. Table 16.1, from Labov (2006: 205), schematizes the expected distribution of linguistic variants across age groups and styles for a stigmatized feature.

<table>
<thead>
<tr>
<th>Younger</th>
<th>Older</th>
<th>Lower class</th>
<th>Working class</th>
<th>Lower middle class</th>
<th>Upper middle class</th>
</tr>
</thead>
<tbody>
<tr>
<td>high</td>
<td>high</td>
<td>high</td>
<td>higher</td>
<td>higher</td>
<td>low</td>
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<tr>
<td>lower</td>
<td>lower</td>
<td>lower</td>
<td>lower</td>
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</tbody>
</table>

Table 16.1  Stable variation – e.g. the [in] variant of (ing) (adapted from Labov 2006: 205). Copyright © 2006 William Labov. Reprinted with the permission of Cambridge University Press.
Table 16.2  Change from above the level of social awareness (adapted from Labov 2006: 205). Copyright © 2006 William Labov. Reprinted with the permission of Cambridge University Press.

<table>
<thead>
<tr>
<th></th>
<th>Lower class</th>
<th>Working class</th>
<th>Lower middle class</th>
<th>Upper middle class</th>
</tr>
</thead>
<tbody>
<tr>
<td>Younger</td>
<td>[lower]</td>
<td>lower</td>
<td>lower</td>
<td>low</td>
</tr>
<tr>
<td>Older</td>
<td>[higher]</td>
<td>higher</td>
<td>higher</td>
<td>low</td>
</tr>
</tbody>
</table>

Table 16.3  Stable variation of a prestige feature (adapted from Labov 2006: 205). Copyright © 2006 William Labov. Reprinted with the permission of Cambridge University Press.

<table>
<thead>
<tr>
<th></th>
<th>Lower class</th>
<th>Working class</th>
<th>Lower middle class</th>
<th>Upper middle class</th>
</tr>
</thead>
<tbody>
<tr>
<td>Younger</td>
<td>low</td>
<td>lower</td>
<td>lower</td>
<td>high</td>
</tr>
<tr>
<td>Older</td>
<td>low</td>
<td>higher</td>
<td>higher</td>
<td>high</td>
</tr>
</tbody>
</table>

Table 16.2 schematizes the age and social class patterning of a change from above for a stigmatized feature. The variable in this case is the recession of centralized, upgliding variants of the nucleus in bird, curl, and verse in New York City, realized as [ɔɪ], registered in the shibboleth “Toity-Toid Street.” This scenario also holds for the relic forms in Norwich examined by Trudgill (1974): the backing of (ir) in bird, hurt, fern; the shortening to [ʊ] of (ə) which had been raised to [u:] in comb, alone, boat; and the shortening to [ʊ] of the (i) in boot, spoon, roof.

It is evident that without looking across age groups, the difference between stable variation (Table 16.1) and change from above (Table 16.2) for a stigmatized feature would likely be lost. The lowest class in the older age group could demonstrate a difference between the two types of features, but only a slight one.

Table 16.3 is simply the inverse of stable variation involving a stigmatized feature, schematized above in Table 16.1. It holds for the standard or prestige members of a pair of variants in a state of stable variation: the [ŋ] variant of (ing), the interdental variants in the alternation of [θ] and [t], [d] and [d] in think and this, and so on.

The patterning across age and social class groups for changes from above the level of awareness is schematized in Table 16.4, using the classic example of New York City post-vocalic /r/-pronunciation as an example. This patterning is also shown in what is probably the most-reprinted diagram in the history of sociolinguistics, in which Labov presents the crossover pattern by which the lower middle class exceeds the upper middle class in the production of constricted /r/ in word-lists.
and minimal pairs (Labov 1966: 240, Figure 11). The (r) variable also displays fine stratification, in contrast to the finding of sharp stratification that is typical of stable linguistic variables. A recent case of the advance of a prestige variant from upper to lower social classes, with age-grading, is described for the fronting of /ow/ (the GOAT vowel) in Charleston, SC (Baranowski 2006, 2008).

The predominant characteristic of linguistic changes from below as shown in Table 16.5 is the curvilinear pattern of social distribution. Early observations of this pattern were Labov’s study (1966) of the raising of (oh) in New York City, Cedergren’s (1973) description of the lenition of (ch) in Panamanian Spanish, and Trudgill’s (1974) investigation of the backing of (e) and the centralization and backing of (i) in right, ride, rye in Norwich. Labov’s studies of the Philadelphia speech community show further evidence of innovation by the interior social classes for the fronting and raising of (aw) in house, south; the raising and backing of (ay) preceding voiceless segments, as in right, bike; the raising and fronting of checked (ey) in made, take; and the fronting of (uw) and (ow) in move, boo and phone, go (Labov 1980).

Over time, a change from below may become subject to social stigmatization, as is the case, for example, with the tensing and raising of short a in Philadelphia and New York City. This development complicates the picture of social class and age, as the middle social and age groups are caught between longer duration of exposure to the advancing change on one hand and the inclination to produce more prestigious forms on the other. The evidence of style shifting across the social

| Table 16.4 | Change from above the level of social awareness – NYC post-vocalic (r) (adapted from Labov 2006: 205). Copyright © 2006 William Labov. Reprinted with the permission of Cambridge University Press.

<table>
<thead>
<tr>
<th>Lower class</th>
<th>Working class</th>
<th>Lower middle class</th>
<th>Upper middle class</th>
</tr>
</thead>
<tbody>
<tr>
<td>Younger</td>
<td>low</td>
<td>lower</td>
<td>lower</td>
</tr>
<tr>
<td>Older</td>
<td>higher</td>
<td>higher</td>
<td>higher</td>
</tr>
</tbody>
</table>

| Table 16.5 | Change from below the level of social awareness – early stage (adapted from Labov 2006: 208). Copyright © 2006 William Labov. Reprinted with the permission of Cambridge University Press.

<table>
<thead>
<tr>
<th>Lower class</th>
<th>Working class</th>
<th>Lower middle class</th>
<th>Upper middle class</th>
</tr>
</thead>
<tbody>
<tr>
<td>Youngest</td>
<td>high</td>
<td>high</td>
<td>medium</td>
</tr>
<tr>
<td>Young adults</td>
<td>medium</td>
<td>high</td>
<td>medium</td>
</tr>
<tr>
<td>Middle aged</td>
<td>low</td>
<td>medium</td>
<td>low</td>
</tr>
<tr>
<td>Oldest</td>
<td>low</td>
<td>low</td>
<td>low</td>
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</table>
Social Differentiation spectrum is a considerable aid in untangling the picture of the processes at work. Evidence from the distribution of the variants with respect to other social factors, such as ethnicity and gender, is also called into play.

Stable variation shows sharp stratification, with monotonically increasing or decreasing use of, respectively, the prestige or stigmatized variant with ascending social class. This relation holds across social contexts (styles) as well: in more formal styles, speakers use less (or more, for a prestige feature) of the marked variant. The alternation of the velar and apical variants of the variable (ing) is a well-known example. These generalizations were found by Fischer (1958) in his study of New England schoolchildren, and they have been repeated in many succeeding studies of this variable. Labov presents the same findings for the adult white New York City speakers (1966: 398, Figure 3). At every point, the ordering of social classes shows that lower classes use the [m] variant more than higher classes. The finding is reinforced by being repeated three times, in the three contextual styles that are presented on the graph. Trudgill (1974) arrived at the same picture, with sharp stratification between the middle class and the working class in spontaneous speech (1974: 92, Figure 14). It is also notable that the social class lines are quite widely and regularly separated. For a stable prestige feature, one would expect the social distribution to follow the same principles, except the slope of the lines is reversed.

When linguistic variation is part of a change in progress, the greatest use of the incoming variant is expected to be found in the innovating social group, with levels of use falling off progressively in adjacent social groups of increasing distance. However, beyond this, usage levels for different age groups must be taken into account. An important contribution to the understanding of socially conditioned linguistic change is given for the replacement of apical [r] by dorsal [R] in Montreal French (Sankoff and Blondeau 2007; Sankoff, Blondeau, and Charity 2001). These authors reported the finding that middle-aged speakers who moved up in social class standing made a rapid shift from the non-prestige variant [r] to the prestige variant [R] over the course of a decade and then made further advances over the course of a second decade. This observation highlights the importance of evaluating social class for all speakers at all sampling points.

6 Understanding Social Class

Researchers interested in linguistic variation and change have been wrestling with the problems of defining and implementing the notion of social class as long as they have been studying the social embedding of language. There is as yet little contact between sociolinguists and sociologists, nor has there been systematic study of social class itself within the field of sociolinguistics, and the variable of social class may sometimes be handled rather mechanically and naively in sociolinguistic analysis. However, it may be appropriate to accept this state of affairs without excessive lamentation. As Mallinson and Dodsworth (2009) point out, social class frameworks imported from sociology or other fields may not be
clearly applicable to sociolinguistic studies, since the object of inquiry of these studies is the dynamics of linguistic variation and change, not the study of social class itself. The dimension of social class has repeatedly been found to be highly productive in sociolinguistic research, despite the lack of a single, unified theory of social class.

If social class is determined by a combination of features, the single indicator that accounts for by far the greatest portion of the variance is occupation. Some researchers use occupation alone as a determiner of social class, and it is hard to imagine a composite index that excludes occupation. Even the cross-cultural applicability of occupation as an indicator of social class may be greater than researchers are inclined to expect. Inkeles and Rossi (1956) found the ranking of occupations to be approximately the same in a cross-section of industrialized nations, including the United States, the United Kingdom, Germany, New Zealand, Japan, and the Soviet Union. Further, judgments of occupational prestige seem to be fairly stable over time, at least in the short run. Nakao et al. (1990: 7) go so far as to state that “Occupational evaluations are clearly part of the core value system of American society.” This is based on the findings that assessments of occupational prestige are consistent from one subgroup to another, are learned at a relatively early age, are relatively stable over time, and “are close to immutable in the short run.”

Still, it is usually the case that occupation is not allowed to stand as the sole indicator of social class. When additional factors are included, they should be used in a motivated way, with an awareness of the distinction between objective factors of economic power and ownership vs. subjective matters of status and prestige.

A second issue that comes from sociological theory is the distinction between a conflict model of class structure and a functional, or consensus, model. As Rickford (1986) shows, both conflict and consensus can occur within one speech community. Linguists frequently express concern over the importance of tailoring the notion of social class to the particular community under study, and such customization extends to deciding whether a conflict or a consensus model applies to a community. In practice, though, a researcher working intensively in a community almost always does take the norms, values, and special characteristics of the community into account, though the understanding of local dynamics may take time to acquire. If the researcher is truly engaged in the community, if he or she has talked and listened to its members enough to visit in their homes, to ask about their families, to know what topics are of burning local interest and concern, then he or she will learn how the members of the community regard each other and will tailor the formulation of all social variables to describe the community in its own terms.

NOTE

1 Much of the material in this section is drawn from Edgell (1993) and Tumin (1967).
REFERENCES


Mallinson, Christine and Dodsworth, Robin (2009) Revisiting the need for new approaches to social class in variationist


The ubiquity of gender in publications about language variation is tied to its status as a particularly salient, meaningful and cross-culturally relevant social category. In this chapter, I review some of the broader trends in scholarship that focuses on the connection of language variation and gender and pay particular attention to scholarship that explores these issues as connected to sexuality and sexual identities. Throughout, I often use “gender” as an umbrella term for “sex, gender, sexuality, and sexual identity.” This is primarily for brevity and not to suggest that these are all interchangeable. When relevant, I make specific reference to a given term.

Perhaps the most consistent thing that can be said about the field of language, gender, and sexuality research is that it has been profoundly influenced by theories of social constructivism. These theories hold that relations between language and social categories like gender and sexual identities emerge out of myriad processes linked to interaction, institutions, genres, roles, and relations. As I will discuss throughout this chapter, this is both an important insight and one that can obscure some other fundamental facts concerning our understanding of gender. For as much as we can critique the position that women and men do what they do precisely because they are women and men – a position that obscures the often small-scale nature of purported differences, that erases inter-gender similarities, and that ignores intra-gender differences – we cannot get away from the cross-cultural ubiquity of assumptions about an essential dichotomy based on biological sex. As Holmes and Meyerhoff (2003: 9) write:

There is extensive evidence to suggest that gender is a crucial component of people’s social world; many people really do find it vital to be able to pigeonhole others into the normative, binary set of female-male, and they find linguistic or social behaviors that threaten the apparent stability of this “essential” distinction extremely disturbing.
In other words, gender (and sex, sexuality, and sexual identity) matters for and to human beings. Because it does, research on language and gender continues to flourish as scholars seek new ways of capturing, analyzing, and understanding how language variation and gender are intertwined.

A second hallmark of research on language and gender highlights its fundamentally interdisciplinary nature. Scholars within this field crosscut disciplinary boundaries, coming from linguistics, cultural studies, literary and areal studies, sociology, political science, neurobiology, psychology, anthropology, and philosophy. As such, they also crosscut methodological approaches, theoretical epistemologies, and ideas about what constitutes data for analysis.

In this chapter, newly commissioned for the second edition of this Handbook, I lay out the historical dimensions of this field of inquiry, particularly as it has unfolded since approximately the mid-1970s and present some of the key findings and theoretical issues that have emerged. The chapter focuses primarily on work that has appeared since the first edition of the Handbook was published (Chambers et al. 2002) or that was not covered in the relevant chapter there (see Cheshire 2002), though some overlap is unavoidable. This chapter is meant as a complement to that one and interested readers are referred there for additional information and discussion. The two chapters together provide a balanced introduction for anyone interested in understanding the basics of this field of inquiry.

1 History

An interest in language variation and gender goes back to Jespersen’s (1922) work Language, its Nature, Development and Origin, which included a dedicated chapter called “The Woman.” As might be expected, Jesperson is both surprisingly modern in his skepticism about men and women speaking different languages and, as the quote below illustrates, unreflectively essentialist in his explanations for why purported differences might arise (246):

There can be no doubt that women exercise a great and universal influence on linguistic development through their instinctive shrinking from coarse and gross expressions and their preference for refined and (in certain spheres) veiled and indirect expressions.

Like much of the linguistic scholarship of the early part of the twentieth century, the majority of what Jespersen has to say in his chapter on the woman resides in anecdotal and overly generalized descriptive accounts about both men and women.

It is not until Fischer (1958) that a quantitative approach to linking variation to sex and gender first appears. In his classic study, Fischer showed that boys were more likely to use the more vernacular alveolar variant of the progressive morpheme -ing while girls were more likely to use the velar variant. Intriguingly,
Fischer also identified “model” boys, who, like the girls, were more likely to produce the velar variant. In doing so, Fischer highlighted what has become the common practice in the sociolinguistic study of gender, namely to recognize and explain variability within gender groups as well as across them. Following Fischer’s study, there has been a fairly robust pattern of sex-linked variation reported from a variety of different communities and linguistic contexts. Scholars working in the tradition of variationist sociolinguistics typically include gender as a critical social variable and, as Fischer’s work illustrates, this has been true since roughly the beginning of the variationist tradition (and its earlier dialectological counterpart). However, it was not until the mid-1970s that language and gender emerged as a field of inquiry in its own right.

The ontological moment for language and gender as a field can largely be linked to the publication of Robin Lakoff’s (1973) article (which later became a book of the same title) “Language and woman’s place.” Lakoff’s work was pivotal because it linked the study of language variation and gender quite specifically to the social importance of gender more generally. It also dealt directly with issues of meaning, both linguistic and social. Just as the American Structuralists had seen political imperatives in the ways they discussed the structures of the indigenous languages of the Americas, Lakoff similarly saw a political imperative in her discussion of the ways in which language and gender could be viewed as intersecting. In so doing, she linked the study of language and gender squarely to feminism and similar political movements that were being advanced during that time period, such as the queer civil rights movement. She also moved the discussion of language and gender away from seeing whatever women happened to do as the marked or deviant case and connected it instead to the ways in which power circulates between and among men and women. This new perspective on language and gender ushered in new theoretical discussions concerning the co-construction of language and social identities and meanings and presaged the theoretical movement toward poststructuralism within late twentieth century and early twenty-first century sociolinguistic thought.

In terms of institutional structures for the field, the Berkeley Women and Language Group (BWLG) was established in 1985 by a group of graduate students at the University of California, Berkeley (http://linguistics.berkeley.edu/BWLG). Between 1985 and 1998, the group hosted five mostly bi-annual conferences and published their proceedings (Bremner, Caskey, and Moonwomon 1985; Hall, Bucholtz, and Moonwomon 1992; Bucholtz et al. 1994; Warner et al. 1996; Wertheim, Bailey, and Corston-Oliver 1998). Much of the work that has subsequently become classic in the field of language and gender was first presented at one of these conferences. In 1999, a more formal organization, the International Gender and Language Association (IGALA) (http://www.lancs.ac.uk/fass/organisations/igala/Index.html), was founded, and in 2006, the journal *Gender and Language* began under the auspices of IGALA. As is true of the field, IGALA and its journal are methodologically, theoretically, linguistically, and culturally diverse, representing a wide spectrum of approaches to understanding the complex ways in which gender and language variation are interconnected.
About the same time that BWLG was established, a new theoretical debate emerged concerning the positioning of social power as a key to understanding how women and men used language. Daniel Maltz and Ruth Borker (1983) published a now canonical piece promoting a new model, the two-cultures model, which located apparent differences between men and women not in differentials of social power but rather in different patterns of socialization that led to different norms and expectations of language use. This model ignited what is now known within the field as the “difference vs. dominance” debate, a debate that engaged the fundamental question of whether the apparent differences that people perceived between men’s and women’s ways of using language were centrally linked to differential forms of and access to social, political, and economic power or whether apparent differences emerged due to differential social engagements and socialization. Throughout the 1990s scholars debated how to understand purported differences and a variety of new theoretical trends emerged. While theoretical discussions in the field have moved away from this central question, in some ways the debate has remained unresolved (see, however, Uchida 1992).

Overlapping with this work, and in many ways made possible by it, was the emergence of work among scholars who were curious about the ways sexuality and sexual identities played a role in much of the apparent variability found among men’s and women’s speech patterns. This group of scholars pointed out that heterosexuality was taken for granted in virtually all of the work to that point that dealt with language and gender and argued that it would be fruitful to uncouple sexuality from gender theoretically and analytically (see Hall 2003 for a discussion of this period.). In 1991, the first Lavender Languages and Linguistics conference was held at American University (http://www.american.edu/cas/anthropology/lavender-languages) and it has been held annually since that time. William Leap’s publication (1996) of Beyond the Lavender Lexicon and Anna Livia and Kira Hall’s publication (1997) of Queerly Phrased mark two of the earliest interventions in what has quickly become known as “queer linguistics.”

Much like the difference vs. dominance debates of the 1980s and 1990s, one of the central debates to emerge within this corner of the field has concerned the place of identity within studies linking sexuality and language variation. Kulick (2000) initiated this conversation with his review of work on “gay and lesbian language.” In the review, Kulick argued that examining the language practices of any particular social group did not necessarily tell you anything useful about that social group; thus, studying the linguistic practices of gay men and lesbians revealed little about gay men and lesbians per se. His theoretical solution to this problem was a turn to theories of language that were more centrally informed by psychoanalytic theory and to argue that a focus on voicing desires would be a more promising avenue. His model was challenged in an influential paper by Mary Bucholtz and Kira Hall (2004), which focused on the place of identity, and particularly the place of social and material power as manifest in identities, within models seeking to link language variation to social dynamics like gender, sex, and sexuality. Just as the wrangling over the role of power in explaining apparent differences in how men and women use language pushed the field toward a more
constructivist orientation, discussions about identity, and specifically sexual identities, have pushed the emergence of new theoretical models about the connection between language and personhood, stance and linguistic style.

In what follows, I show some of the other ways in which language has been connected to gender, sex, sexuality, and sexual identities, focusing on those studies that examine linguistic variation as tied to lexical meaning, as an independent variable in statistical models seeking to understand language change, as emerging from interaction, and as a perceptual condition. Readers interested in a more in-depth treatment of all these matters are referred to the *Handbook of Language and Gender* (Holmes and Meyerhoff 2003).

### 2 Meaning

Perhaps the most accessible area of language and gender research for non-specialist audiences is the one that has received the least attention from linguists, namely the connections of gender to content word meaning. One means through which scholars have addressed the question of lexical meaning in connection to gender has been to look specifically at lexical items that are either explicitly gender marked (such as *she*) or implicitly gender marked (such as *president*). Such examinations, for instance, led many feminists and feminist scholars to argue that gender marking was linked directly to the kinds of discrimination faced by women, particularly in the workplace (Spender 1998; Valian 1998). These critiques, in turn, helped feed the kind of attention to language and word choice that is popularly known in the United States and elsewhere as “political correctness.” Movements toward so-called political correctness prove interesting precisely because of the ways in which they lay bare the relationship of meaning to broader systems of social, cultural, and political power (Cameron 1995). The power to name, to regulate and control meaning, and to sanction others for their linguistic behavior has been of central interest to scholars both within and outside disciplinary linguistics.

From within linguistics, Sally McConnell-Ginet has done some of the most significant work exploring these issues, specifically from the perspective of formal models of semantics and pragmatics. As she writes, “meaning interacts with gender because it links the social/psychological phenomenon of language with the abstract formal notion of a language, an interpreted linguistic system” (2011: 57). Her body of work on this issue has centered on the interrelationships between what words mean, what they are taken to mean in the context of particular speakers and particular listeners, and the ways in which the intention and interpretation of meaning are constrained by both broad and local social and cultural norms. For instance, in an essay on the meanings of identity labels like “queer,” “gay,” and “lesbian,” she illustrates how lexical meaning is much more fluid than many speakers (and scholars) are comfortable admitting (2002). Lexical meaning can and does shift depending on the actors, actions, and context involved. As she writes, “Defining is seldom ‘just’ semantics but is consequential precisely because words are key resources for thought and action, central players in theory and in politics.”
In other words, lexical meaning is more akin to a theory than to a predetermined position existing independently of its context of use. In another essay, she shows how a term like “marriage” emphasizes the fundamental possibility of coexistent variable meanings (2006). Like coexistent variability in other areas of language, variability in lexical meanings highlights the fundamentally social nature through which meaning becomes conventionalized.

Another means by which linguists have addressed variability in the lexicon comes from corpus linguistics. Here, scholars have explored what the distribution of gender-marked terms might reveal. In an engaging article examining explicitly marked gender terms such as pronouns and nouns as well as terms that collocate with these in four corpora of British English, Paul Baker (2010) illustrates that while there has been some decrease in the use of explicitly marked male terms like *Mr.* or *he*, this decline has not coincided with an increase in explicitly marked female terms. Baker interprets this finding to suggest that the resolution to the asymmetrical practice of using titles more commonly for men than for women has been an overall decline in the use of titles rather than an increase in the use of titles to refer to women. This study also examined the frequency of specific adjectives used to describe the terms *man* and *woman* (e.g. *young*, *old*, *married*, *fat*) and found that they are largely convergent and have not changed significantly over time. Further, gender neutral terms for nominal designations such as *police officer* and *spokesperson* appear to be increasing. Studies such as Baker’s show the promise of methods that examine large sets of data for lexical trends and how such studies engage questions that have been historically quite difficult to pursue.

The use of corpus-based data can present challenges as well, however. Cameron (2007b) discusses the reception of and comments to a statistical algorithm called the Gender Genie (http://bookblog.net/gender/genie.php). Developed by two computational linguists, the Gender Genie uses a statistical frequency algorithm to predict the sex of the author of a particular text. Cameron shows that blog commenters on the Gender Genie blog find it difficult to move beyond commenting about individual words such as personal pronouns to an orientation toward the broader syntactic structures that a statistical algorithm based on word frequency would indicate. For instance, the frequent use of function words like *the* will generally indicate a full noun phrase, and the Gender Genie has found that male authors are more likely to use full noun phrases (as compared to pronouns) than are female authors. Some commenters to the blog seemed to understand the algorithm’s parsing of *the* as indicating a male author to mean that *the* was used primarily by men and that women used something else (245).

Cameron further notes two critical problems that face researchers of language and gender as non-specialist audiences interpret our work. First, many people hold a strong essentialist ideology concerning gender differentiation that makes apparent differences between men and women particularly salient and even expected. Second, many have a difficult time thinking of language in terms of structure as well as content and tend to focus primarily on the idea that languages are made up of words (247). These tendencies have likely led, on the one hand, to popular movements focusing on word meaning, such as political correctness, and on the other, to a lack of interest on the part of linguists to engage with those
components of language variation that seem to point to this kind of unconsidered essentialism. Nonetheless, focusing on issues of word meaning, particularly in the ways scholars like McConnell-Ginet, Baker, and Cameron have, offers a powerful means through which to reach non-specialists concerning matters related to language and gender.

3 Sex as an Independent Variable

Starting with Fischer’s early work examining allomorphic variation in progressive verbs, researchers have developed quantitative methods to understand and model gender as an independent variable that language variation and change depend on. In other words, gender is assumed to predict or otherwise account for some degree of linguistic variation. Generally speaking, gender has not been considered in isolation and many quantitative studies have linked gender and other social demographic categories such as ethnicity, social class, age, and so on, to structured linguistic variation as well as to language change. The important point for much of this work has been first to show that speakers with different sexes (generally male and female) have different relative frequencies of various linguistic outputs and then to offer explanations for why those patterns obtain. For instance, in his classic study of variable /r/ production in New York City, Labov (1972) showed that females were, across all socioeconomic and age groups, more likely than males to produce /r/ in postvocalic contexts. In this case, postvocalic /r/ was undergoing a change in which more speakers were producing this variant than had historically been the case. Additionally, the occurrence of postvocalic /r/ was gaining in prestige. Thus, the women in Labov’s study were producing more of the prestigious variant whereas the men were producing more of the less prestigious variant.

This particular finding, that females are more likely to produce the prestige variants of sounds undergoing changes of which people are consciously aware and males are more likely to produce less prestigious variants, has been widely reported across many different cultural and linguistic contexts. In addition, even when changes are below the level of awareness and so not overtly associated with prestige or lack thereof, women also lead in favoring the innovative variant. The general finding that women are the leaders of language change and that men lead in the use of forms that are socially marked as nonstandard has been so widely found that it has been deemed the “gender pattern,” and Labov (1990, 2001) links it directly to three principles of language variation and change (2001):

For stable sociolinguistic variables, women show a lower rate of stigmatized variants and a higher rate of prestige variants than men. (266)

In linguistic change from above [the level of awareness], women adopt prestige forms at a higher rate than men. (274)

In linguistic change from below [the level of awareness], women use higher frequencies of innovative forms than men do. (292)
Despite the fact that this pattern appears quite robust, explanations seeking to account for it have been varied. Further, the undertheorized use of gender as a social demographic and independent quantitative variable among sociolinguists within the variationist tradition has been widely and resoundingly critiqued as suggesting that gender is somehow a fixed and static property of individuals (see Romaine 2003; Ehrlich 2004; Cameron 2007a). As a response, many scholars within this tradition have probed beyond gender for understanding the so-called "gender pattern." For instance, Patricia Nichols (1986) showed the familiar pattern among speakers in coastal South Carolina involved in the shift from Gullah to American English, with women generally being more likely to be shifting to English and men being more likely to maintain Gullah. However, she located the pattern not in gender per se but rather in the patterns of employment and economic opportunity that led women to be in more contact with speakers of varieties of American English and men to have more linguistic capital tied to Gullah because of their involvement in the tourist industry. Thus, the particular "meaning" of the shift for speakers was not necessarily linked to gender and the connection to gender was primarily indirect.

There have also been a variety of studies showing different patterns than those captured by the principles above. For instance, Cheshire (1987; 1999) showed that while a group of male and female school children differed in their linguistic production of several variables, it was not the case that the males all had more vernacular forms. Cheshire argues that it is not specifically gender that explains her findings but the structure of the students' peer groups and individual student's orientation toward the norms of those groups that were the primary predictors of linguistic behavior. Comparably, in her work in a Detroit area high school, Penelope Eckert likewise showed that the patterns among male and female high school students did not follow the "gender pattern" exactly, in part because of a nuanced interaction between the students' gender and their social group affiliation as "jocks" or "burnouts" (1989, 2000). Like the Nichols study, both Cheshire and Eckert explain the quantitative relationship between linguistic variation and gender as being linked to other patterns of behavior that are gender linked. Thus, while gender correlates in fairly clear ways with linguistic variation, the meaningfulness of that variation is only indirectly linked to gender.

In a slightly different version of the same argument, Tagliamonte, D'Arcy, and Jankowski (2010) show that the use of possessive have and possessive have got in Toronto varieties of English are stratified by gender and education along the expected lines in which the more innovative form have is favored by people who are more educated and female and the more conservative form have got is favored by people who are less educated and male. They argue, however, that this pattern is not particularly linked to prestige (as predicted by the gender pattern) because there is a third variant, got, which most speakers recognize as the non-prestige variant. Instead they argue that as have has become more frequent, it has become available as a means to differentiate gender groups. Similarly, recent work on the grammaticalization of innovative forms of like, specifically quotative and discourse marker like, has shown variable results in rates of production between men...
and women. The bulk of the research that has examined *like* has found that women are distributionally more frequent users. D’Arcy (2007), however, shows that there is an interesting interaction between gender and the linguistic function of *like*, with women being more frequent producers of clause-initial discourse marker *like* (e.g. “I saw you yesterday. Like you looked zonked.”), and men being more frequent users of clause-internal discourse particle *like* (e.g. “We had *like* vanilla ice cream.”). In addition to differences in distributional frequency tied to the function of *like* and speaker sex, speaker age has also been shown to interact such that, among younger speakers (under age 30), women are more likely to produce quotative *like* than are men but that pattern is the reverse – and the gender difference greater – among speakers older than 30. Tagliamonte and D’Arcy (2004) argue that this pattern illustrates that as *like* grammaticalized it became more likely to differentiate male and female speakers.

More recent research, such as Buchstaller and D’Arcy (2009) and Durham *et al.* (2012), each of which examine innovative *like* in several different English-speaking contexts, has shown less consistency in the linkage between *like* usage, age, and sex (see also Ferrara and Bell 1995). In a study of children’s acquisition of *like*, Odato (2010) found decreasing acceptance of *like* among older girls but no difference linked to age among boys. Children also became increasingly sensitive to the grammatical constraints on *like*, with girls becoming more sensitive at an earlier age than boys to both grammatical constraints on *like* and to the social consequences of *like*.

These various findings point to the emergence of a different way of approaching the quantitative modeling of language variation and gender. In this new approach, specific associations between a linguistic variant, such as *like*, and social characteristics, such as gender, are likely to be meaningful locally and thus have somewhat different meanings in different local contexts. Even though the variant and the social characteristic may in some sense be the same, the underlying generation of their correlation can be completely different.

As Eckert (2008) writes concerning the relationship between linguistic variation and social identities:

> This generalization [the “gender pattern”] says nothing about the kinds of behaviors and ideologies that underlie these patterns, what kinds of meaning people attach to the conservative and innovative variant, who does and does not fit the pattern and why. It says nothing about language use and gender in everyday life, and it says nothing about why the same generalization applies to class stratification – that is, not only women, but working-class people, lead in sound change. Yet variationists continue to use labels such as “female-led changes” as if such changes all had a direct relation to gender. Quantitative generalizations of the sort made in survey studies are important, but exploring the meaning of variation requires that we examine what lies beneath those generalizations. (455)

Eckert labels this position as the “third wave” in sociolinguistics and defines it by focusing centrally on the meaningfulness of linguistic variation, particularly as linked to styles, stances, and personas. Within the third wave of sociolinguistics,
there has been a general shift away from the interest in language change that animated earlier variationist work and toward an interest in highlighting and seeking to understand how gender and other social meanings are (and are not) implicated in the social dynamics of linguistic variation. Within that context, not only do outputs correlated with social demographic categories vary but also the “meaning” of sociolinguistic variation is itself variable and emergent through practice. In this way, the same linguistic variant can have multiple meanings depending on complex layers of indexical association. Third wave sociolinguistic studies thus bear a tight kinship with the by far larger body of research on language variation and gender that uses qualitative and social constructivist methods.

4 Interactional Discourse

The majority of the work within the field of language and gender falls under a broad rubric that might be labeled an interactional discourse-based approach. Different strands of research within this approach have different foci, but the perspective that gender emerges through interaction and is both enabled and constrained by myriad processes, institutions, cultural norms, and social values unites the majority of this work. Further, it is largely in this research tradition that the complicated relationships between language variation, gender, sex, sexuality, and sexual identities have emerged.

As Bucholtz (2011) writes of the interactional approach (in relation to discourses linked to race as well as gender), it is important to examine speech “not only for its content but also for its discursive structure, its ethnographic and interactional context, its co-construction by the researcher, and its ideological effects” (385). Such questions engage fundamental issues concerning how local, particular moments of interaction become conventionalized and ritualized into institutional, political, and social processes, policies, and generalizations. Ochs (1994), for instance, argues that gender is rarely indexed directly through specific discursive practices; rather, particular stances (for instance, of nurturing) or personas (for instance, a father) are more likely to be the direct indexical that is then linked via conventionalized norms indirectly to a macrosocial category such as gender. The interactional discourse-based approach is largely concerned with exploring both direct and indirect indexicalities.

For instance, in a wide-ranging body of work exploring the discursive construction of masculinity, Kiesling (1997, 2002, 2005) has argued that exploring the mechanisms by which men engage in homosocial bonding provides an important lens into how hegemonic positions of power are attained and maintained. Kiesling (2005) notes that these discourses include essentialized gender difference, heterosexism, dominance, and male solidarity. One of Kiesling’s important points is that the men in his studies go to great lengths to constrain the possibilities that they be perceived as gay, something which they feel would undermine their claims to particular kinds of power. In this way, gender and sexuality become indirectly implicated in the ways the men use language to achieve power. Using a quite
different kind of data, Zimman and Hall (2010) illustrate something similar to Kiesling in their discussion of how transgender men index sex and gender indirectly via the discursive construction of their bodies. For instance, transgender men frame their own genitalia using the same lexical referents regardless of whether they are speaking of an anatomical penis or clitoris. They also refer to their and others’ bodies in complex ways that serve to undermine their connection to femaleness and assert their essential similarity to other men. In this way, language becomes a critical component of the decoupling of sex and gender as natural correlates to one another, even though the discourse itself may not be specifically about doing “gender.”

Further, in a pair of articles about speaking as a heterosexual and speaking as a lesbian, Kitzinger (2005) and Land and Kitzinger (2005) show how the dynamics of sexuality, and especially compulsory heterosexuality, play themselves out in places where sexuality does not overtly matter, for instance in telephone calls about other topics. Land and Kitzinger (2005) illustrate that in intimate phone conversations where their interlocutors know their sexual identities, lesbians are not significantly different from people of other sexual orientations in the ways they make their sexuality relevant in a conversational context. In institutional contexts, however, where the presumption is of heterosexuality but the discourse may be about any number of topics, lesbians employ several strategies for challenging the presumption of heterosexuality, including both implicit and explicit correction and repair. For instance, in the excerpt below, the insurance agent presumes heterosexuality and the customer must explicitly come out in order to manage the transaction.

This example illustrates nicely how gender and sexual identities may be both implicitly and explicitly indexed during interactions. Certainly the lexical items husband and wife explicitly point to gender. In this particular case, they also explicitly index sexual identities. As Land and Kitzinger (2005: 387) point out, “heteronormativity enables heterosexuals to take for granted their right to refer
to their heterosexual relationships without this being treated as conveying information about who they go to bed with or as stating that they are heterosexual.” Institutional interactions such as these are particularly fruitful arenas for exploring the interactional processes through which language helps make gender, sex, and sexuality available as indexical and indexed social resources.

These resources are particularly visible within institutional contexts because of the highly conventionalized roles and stances people take when doing institutionalized work. These stances and roles are frequently ideologically gendered regardless of the actual sex of the person performing the role. McElhinney’s (1995, 2010) work on female police officers and Sunaoshi’s (2005) study of Japanese factory managers both illustrate the ways in which women functioning in institutional roles that have been historically gendered as male must find ways to both perform their jobs and not be perceived as too masculine. Much like the fraternity men discussed by Kiesling above, these women typically must find ways of fulfilling these roles without calling into question their sexual identities, and they must do so in a way that also does not call into question their competence at performing the job, something they manage by adopting profession-specific stances and personas. Similarly, in her work on two institutions devoted to helping victims of domestic violence, Osterman (2003) examines how institutional roles that are explicitly tied to gender vary considerably, even when they are ostensibly doing the “same” work. In Brazil, there are two separate institutions devoted to working through cases of domestic violence. One of them is governmental and staffed by female police officers and the other is structured more like a shelter and is staffed primarily by workers who identify as feminists. The women working in the two different institutions use quite different linguistic strategies, which Osterman shows to be linked to gender but perhaps more directly to social class, socioeconomic positions, and broader belief systems about the nature of domestic violence. Thus, she shows that the linguistic strategies used by the workers are not specifically about gender but are rather about broader sets of institutional practices and institutional roles that are available to the different types of professionals working in the two contexts.

Finally, Ehrlich has focused on how court proceedings rely on and reinscribe gendered meanings in cases involving sexual assault. Ehrlich (2001), for instance, illustrates how specific linguistic elements such as nominalization, passive voice, and unaccusatives may be mobilized to create reasonable doubt about an accusation of sexual assault. In a 2007 paper she further illustrates how judicial decisions typically reframe the local talk of a trial to reflect cultural norms for the interpretation of behavior as gender appropriate or inappropriate. In so doing, they specifically create gender as a meaningful social category (Ehrlich 2007). She writes, “Cultural norms make certain performances of gender seem natural . . . these same cultural norms render other gendered identities inappropriate or unintelligible. . .” (453). In the case of the sexual assault cases that she discusses, these cultural norms lead to the view that a lack of overt struggle on the part of someone making a claim of sexual assault is actually an indication of sexual consent precisely because of the uninterpretability of someone being submissive to unwanted sexual activity as a strategy for avoiding something they fear could be worse.
As these various cases illustrate, institutions provide a useful site for exploring language and gender. Increasingly, institutions also provide a flashpoint for understanding how language, gender, sex, and sexuality are affected by globalization. Globalization is about the changing ways in which people, objects, technologies, and ideas circulate. These paths of circulation naturally include, often centrally, aspects of language. Heller (2011) points out that globalizing trends have two broad effects on language: spreading “generic” means of interaction – language as a technical skill (e.g. Cameron 2000) – and promoting authenticity as a mechanism of commodifying the local. These forms of commodification are also intertwined with gender in both predictable and novel ways as gender, too, comes to be linked to both generic, global orientations and locally specific ones.

The interaction between the generic and the locally specific often highlights challenges to local power structures, particularly those that are hegemonic (Besnier 2007). For example, in her research on the effects of a globalized youth culture on Cypriot teenage girls, Skapoulli (2010) illustrates how contradictory gender ideologies have led to heightened moral panic about female sexuality, which in turn has led teenagers to begin policing one another’s moral and sexual character in ways that were not traditionally in place. The basic contradiction lies in relatively liberal ideas of gender and sexuality that come to Cyprus via Western-oriented youth culture and ongoing migration on the one hand and more traditional Cypriot ideas about the same on the other.

In another example of the intersection of the global and the local, Hall (2009) points out how Western-style discourses of queer civil rights became incorporated in the context of middle-class Hindi lesbian, gay, bisexual, and transgender (LGBT) activists working on HIV/AIDS education. In this case, a global discourse of queerness was used locally to distinguish the middle-class activists from groups such as “boys” – that is, women who orient toward existing models of female masculinity tied to rural India rather than to broader discourses of civil rights. Likewise, Barrett (2003) illustrates how different travel guides aimed at English-speaking, gay male tourists engage in the ideological work of positioning American gay men as either culturally unique as gay men or as culturally no different from straight men save for their particular sexual desires (see also Leap and Boellstorff 2004 for similar points). In this case, local ideas of desire become anchored in global tourism. Piller and Takahashi (2006) also engage the issue of globalized desire. They illustrate that the bilinguals in their study turn language itself into an object of desire in their hopes of attracting a partner who speaks a particular language and then, with that partner, raising bilingual children. In their analysis, romantic and sexual desires become wholly enmeshed with linguistic desire.

5 Perception

While the majority of both variationist and interactional discourse-based scholarship on language and gender examines linguistic production by people linked to particular social categories, a relatively newer body of work focuses on gender,
sex, and sexual identity as part of the perceptual context of language. These studies test whether listeners are apt to alter their understanding of linguistic input if they believe the speaker is of a particular gender or if they are likely to change their assumptions about the characteristics of the speaker based on hearing variable linguistic input. This body of work generally seeks to understand processes of linguistic perception as they may connect to the perception of the social world.

A range of studies has demonstrated that speakers use linguistic variation as a cue to social properties of speakers. Foulkes (2010), for instance, shows that speakers who are local to a specific area in Tynside were more likely to identify speakers with non-laryngealized, word medial, intersonorant stops (as in words like happy or banker) as girls than were listeners who were not local to the area. Likewise, Munson et al. (2006b) find that listeners are sensitive to the degree of retraction of /ae/ in gay and straight men’s speech and categorize speakers with retracted /ae/ as more gay sounding than those without. Munson, Jefferson, and McDonald (2006a) also show that perceptions of masculinity, femininity, and perceived sexual identification are correlated with one another. However, it was not the case that speakers who were perceived to be gay were also perceived to be less masculine based on the same set of acoustic and perceptual criteria. Indeed, the criteria listeners used to label a speaker as gay or lesbian differed from those used to label a speaker as more or less masculine/feminine.

In a grammatically oriented study, Squires (2011) showed that male speakers were more likely to be perceived as producing nonstandard structures than were female speakers. Squires conducted a series of priming experiments in which listeners were primed with standard and nonstandard agreement structures and then asked to choose an image that corresponded to the likely speaker. They were more likely to choose a male speaker if they had been primed with a nonstandard example than the reverse. This was true despite the fact that the grammatical variants being tested have not previously been linked to gender. Squires analyzes her findings as indicating an indirect relationship between gender and standardness/nonstandardness more broadly.

These cases illustrate how listeners use linguistic information to make inferences about or otherwise categorize speakers. The other type of perceptual and sociophonetic work that has been conducted involves using sex (or sexual orientation) as a means of influencing the perception of linguistic input. One of the primary studies to pursue this line of inquiry as related to gender is Strand (1999), in which listeners were told a speaker was male or female and were then asked to categorize phonemes along an /s/-/ʃ/ continuum. The point at which they indicated a phonemic boundary differed depending on whether they thought they were listening to a man or a woman. Additionally, speakers were also sensitive to the gender typicality of the speaker (see also Johnson 2005).

The reliance on typicality points to another area in which perceptual work has been conducted, primarily among cognitive and developmental psychologists, and this is in the area of gender essentialism and its connection to language. Some of this work has linked social gender to grammatical gender. For instance, in a
now widely cited study, Lera Boroditsky and her colleagues showed that speakers of German and Spanish described nouns differently in ways that ascribe properties of socially oriented gender to nouns based on their grammatical gender assignment (Boroditsky, Schmidt, and Phillips 2003). In this study, a list of English nouns was generated in which the nouns differed in their grammatical gender assignment in German and Spanish. German-English and Spanish-English bilinguals were asked to state the first three adjectives that came to mind to describe the objects. Independent raters then rated the adjectives on a feminine-masculine scale. The results were that speakers’ adjectival choices were more feminine when the noun was classified in their language as grammatically feminine and vice versa. Later work, particularly Vigliocco et al. (2005), expands on this idea to show that speakers’ gendering of the nouns in their language occurred primarily via analogy with broader cultural ideas about human gender expression and thus were much stronger for languages with a two-gender grammatical system than one with three or more genders.

Developmental psychologist Susan Gelman and her colleagues have approached the question of language and gender from the perspective of a more general cognitive essentialism that is linguistically supported through mechanisms such as generic nouns. Cognitive essentialism captures the belief that categories are fixed, static, and linked to features that are fundamentally shared by all members of the category. In focusing on cognitive essentialism, this body of work does not engage in questioning whether or not essentialism is accurate but instead focuses on the general cognitive inclination toward essentializing and tries to understand what sorts of factors encourage and support essentialism. In the case of gender essentialism, Smiler and Gelman (2008) found that terms that were explicitly gendered (such as mother) as well as those that were implicitly gendered (such as jock) were more essentialized when they were masculine than when they were feminine, suggesting a more rigid view of normative male behavior than of normative female behavior among their participants. Further, implicitly gendered terms showed a larger effect of essentialism than did explicitly gendered terms. Smiler and Gelman interpret this finding as evidence for gender beliefs that may be difficult to elicit overtly.

In work on the perception of linguistic variation and gender, we see a somewhat similar pattern to those that we saw in lexically based, third wave variationist, and interactional discourse-based approaches, namely an interaction between explicit (or direct) and implicit (or indirect) gendering. These similarities point to complex and nuanced relationships between gender and language variation as linked both to production and perception and simultaneously rooted in mechanisms of social cognition and the outcomes of social interaction.

6 Connections

As the preceding discussion shows, there is a great deal of variation in how researchers have approached the question of entanglements between language,
gender, sex, sexual identity, and sexuality. Despite this variability, however, there are several points of agreement across the various traditions of research: (i) gender, sex, and sexuality are not static social categories; (ii) gender is implicated either directly or indirectly in language variation and language change; (iii) gender can be manipulated to achieve different perceptual results; (iv) gender is often used to explain variable phenomena even when it is not the cause of the variation; (v) gender, sex, sexual identities, and sexuality are connected to one another in surprising as well as predictable ways.

In the face of these generalizations, we might imagine that the field is coming to a point of a more unified theoretical and analytic approach; however, this is only partially the case. While social constructivism has largely taken the place of undifferentiated ideas of what sex is and the static ways in which it might be connected to language, that shift is often not realized in more than a cursory way. Biologically based arguments about purported differences in language behavior across the sex classes continue (see, for instance, Locke 2011). Since sex, gender, and sexuality are culturally, socially, and biologically ubiquitous among humans, it is no surprise that they are also theoretical shape shifters, available to a host of approaches, ideas, and theoretical treatments. While it may not be possible to resolve certain theoretical tensions concerning these concepts because of the fundamental differences in theoretical axioms and epistemologies, the undeniable connection between language variation and gender renders gender (and its con-specifics, sex, sexuality, and sexual identity) one of the most effective windows into both the study of language variation and the study of human cultures.

REFERENCES


18 Ethnicity

CARMEN FOUGHT

1 What Is Ethnicity?

What is *ethnicity*, and how is it reflected in language variation and change? As sociolinguistic theory has moved toward making the social construction and ongoing performance of identity central, the study of how language reflects and constructs ethnic identity has become more complex. Just as labeling by sex (i.e. assigning a speaker to the category “male” or “female”) cannot substitute for a careful study of the social practices that constitute gender in a particular community (cf. Eckert and McConnell-Ginet 1992), race as a category is useless to us without an understanding of the construction of ethnicity by individuals and communities. Ethnicity is not about what one *is*, but rather about what one *does*. The concomitant category of *race*, however, is also socially constructed, and has proven impossible to delimit scientifically (as Zack (1993), Healey (1997), and Zelinsky (2001), among others, show). It is beyond the scope of this chapter to explore the complexities of the study of race and ethnicity by anthropologists, sociologists, and others.¹ A reasonable point of departure, though, can be found in the classic study by Omi and Winant (1994), where race is defined as “a concept which signifies and symbolizes social conflicts and interests by referring to different types of human bodies” (1994: 55).

Modern sociolinguistic research views the construction of identity as a complex, multi-faceted project, in which ethnicity is only one component. The construction of an ethnic identity, for example, is simultaneous with (and may even be in conflict with) the construction of a gendered self. As Bucholtz puts it, “any performance of ethnicity is always simultaneously a performance of gender” (1995: 364). Urciuoli (1996) discusses the conflation of social ideologies of race with those of class in the Puerto Rican-American community she studied.

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At the same time, the construction of ethnic identity is not just influenced by or correlated with these other factors in a separable way. One crucial principle of modern sociolinguistic theory is that speakers often index “polyphonic identities” (Barrett 1999) through their use of language, so that utterances reflect the nuances of identity in multilayered ways that cannot be broken down into smaller components. We know, for example, that to be a “black woman” in the USA is not a sum of the experience of being “black” plus the experience of being “a woman.” Thus, Troutman (2001) focuses on the specific linguistic practices of African-American women, a group that has been multiply marginalized in society and in the linguistic literature. In an even more complex example, the African-American drag queens studied by Barrett (1999) used language to present themselves simultaneously as African Americans, gay men, and drag queens. These polyphonous identities are a crucial research focus for sociolinguists, as we seek to understand how language reflects and restructures our social worlds.

This chapter will explore some of the theoretical contributions of the study of language in minority ethnic communities to the field of sociolinguistics. In keeping with the theme of the volume, I will discuss variation (within and across communities) and change (as the linguistic variables that reflect and shape the social or geographical contexts of particular groups and individuals shift over time). Particularly in the latter category, I will focus on communities within the USA, where a majority of the studies in the variationist tradition have been done. So many significant works have been produced on language and ethnicity that it is impossible to discuss all of them; in many places I have selected illustrative examples, rather than trying to list everything that has been done.

2 Linguistic Resources and Ethnic Identity

2.1 Linguistic repertoires

Within any self-defined ethnic group, there will be a range of ways of speaking that are appropriate to the complexities of identity construction, a pool of resources from which individual members draw the linguistic tools they need. These tools can take many forms, but some of the ones that have been found to be most relevant are:

- a heritage language (such as Chinese for Chinese Americans)
- a heritage dialect (such as Chicano English for Mexican Americans)
- a “borrowed” variety (such as the use of African American Vernacular English, or AAVE, by Puerto Rican Americans)
- a “mixed” variety (such as the use of “Spanglish”, i.e. code-switching, by Mexican Americans)
- suprasegmental features (such as the use of more syllable timing in Chicano English)
- specific discourse features and/or language norms (such as the use of signifying, a display of humorous verbal skill, by African Americans).
These elements may interact with each other as well. For example, in some cases, a dialect associated with a minority ethnic group may integrate features of the heritage language associated with that group, as is the case with many dialects of English spoken in Latino communities. Wald (1984), for example, refers to Chicano English as a “phonological creole” (1984: 21), whose sound system originated in numerous non-native English systems of immigrants, which were later inherited by their children and developed into a stable dialect with phonological norms of its own. Though historically more remote, the influences of African languages on AAVE are another example. Similarly, Leap (1993) provides an analysis of the role of ancestral languages in a number of dialects spoken by Native Americans in different parts of the United States.

The use of specific discourse features and language norms may be part of the use of an ethnically marked variety, such as Chicano English, or it may be incorporated into a more mainstream or standard variety, as a way of signaling ethnic identity while still accessing the privileges of a more socially prestigious code. Smitherman (2000, Chapter 14), for example, presents an analysis of the 1991 Clarence Thomas-Anita Hill hearings. She shows that while Thomas, a judge, does not use grammatical or phonological features of AAVE, he does use a combination of African-American rhetorical strategies to mark his ethnicity. The ability to index ethnic identity while speaking a standard variety is crucial, because of the complex ideologies surrounding the concept of “selling out” that often are found in marginalized groups of all types, ethnic and otherwise. Morgan argues that in some African-American communities, those who exclusively use Standard English can even “risk losing community membership” (2002: 67).

2.2 Variation at different levels of language

One of the interesting theoretical issues in language and ethnicity is how different components of the language system (phonology, syntax, lexicon, suprasegmental features, discourse) play different roles in the construction of ethnicity. We saw in the discussion above that using standard grammar and phonology with ethnically specific rhetorical strategies was one strategy for constructing a distinct “middle-class African-American” identity. Weldon (2004) conducted a study of middle-class African-American intellectuals participating in a political symposium. One very common pattern was for speakers to use a wide range of phonological features, including some that might be stigmatized (e.g. stopping of interdental fricatives), but very few grammatical elements. This result supports Lippi-Green’s (1997) observation that while outsiders may criticize phonological features of AAVE, the debate among African Americans is focused almost solely on grammatical issues. It seems logical that grammatical features are the most sensitive to situations where the degree of standardness is relevant, as in a relatively more formal setting.

In other types of contexts, though, the same components may be organized differently, especially when there is an intersection of regional and ethnic identities. Rickford (1985) looked at two older speakers, one white and one black, on one of the South Carolina Sea Islands. Both speakers’ personal histories involved
contact with members of the other group, which Rickford found had influenced their dialects at the phonological level. The European-American speaker, however, showed a complete absence of the creole grammatical features used by the African-American speaker. Rickford’s interpretation is that “non-standard phonological features are part of a regional Sea Island identity in which both Blacks and Whites participate, but non-standard morpho-syntactic features are more heavily marked as creole and serve as ethnic markers” (1985: 107). In other words, phonetic markers are associated with a local identity, while syntactic features are associated with a specifically ethnic identity.

Interestingly, Wolfram et al. (1999) found exactly the opposite pattern in studying the speech of Muzel Bryant, who grew up as a member of the single African-American family on the island of Ocracoke, in North Carolina. Muzel’s phonological system was basically typical of AAVE, and showed few phonological features of the local island dialect. She also revealed a lack of familiarity with local terms such as O’cock for “Ocracoker.” In the areas of morphology and syntax, however, Muzel’s speech was more mixed, and the researchers found both AAVE features and features of the local Outer Banks English. These cross-currents in Muzel Bryant’s speech reveal that her ethnicity served as a significant barrier to integration in the island community. Wolfram et al. suggest that the phonology and lexicon are the components of the Ocracoke brogue that are most often identified as unique, and thus it makes sense that the social distance experienced by Muzel’s family would be reflected in these components, rather than in the morphology or syntax.

This analysis coincides well with Rickford’s (1985) discussion of the difference between local and generalized prestige. Rickford disagrees with the analysis by Labov (1984), in which sound changes are treated as associated with local identity and prestige while grammatical variables are associated with more generalized resources (Rickford 1985: 111). He accepts the distinction itself, but rejects the association of phonology with “local” and syntax or morphology with “general,” and gives a number of examples of grammatical variables strongly associated with local communities, and phonological ones that seem to have a generalized prestige. This analysis can encompass both the speech of Muzel Bryant, which lacks the phonological features so symbolic of Ocracokers, and the speech of the white Sea Islander, which lacks the grammatical features most characteristic of creole/black identity on the Sea Islands.

When a variety associated with a particular ethnic group is used by people of other ethnicities, which may happen for a variety of reasons, different components of the linguistic system may come into play. Sweetland (2002) presents a linguistic analysis of a young European-American woman, “Delilah” (a pseudonym), who grew up in a predominantly African-American area of Cincinnati, Ohio. Delilah was completely integrated into an African-American network of peers, and spoke a variety of AAVE as her primary dialect, showing complete fluency in its complex syntactic and morphological patterns. In terms of her phonological system, however, the pattern was more mixed. While Delilah used some AAVE features, there were other variables that she avoided, for example the metathesis of ask to
“aks.” Sweetland attributes Delilah’s “phonological restraint” to “her sensitivity to the norms of the black community” (2002: 532), because heavy use of certain AAVE phonological patterns by young European Americans outside the community is often the subject of overt negative commentary among her peers.

Another phenomenon in which variation can take place at different linguistic levels is crossing; the deliberate use of a language variety associated with a group to which the speaker does not belong (Rampton 1995), which will be discussed in more detail below. Cutler (1999) described the dialect patterns of a European-American teenager (“Mike,” a pseudonym) who crossed into AAVE, despite his upper-middle-class status and his lack of regular contact with African Americans. Mike used many phonetic features of AAVE (e.g. stopping of fricatives); Cutler even observed Mike “correcting” his pronunciation of the word ask to the stigmatized “aks” [æks]. He also used numerous lexical items associated with hip-hop culture (such as yo and phat). At the same time, Mike did not use the core features of AAVE morphosyntax: the complex aspectual system, the regularization of third person singular verbs, and so on. It is likely that Mike lacked sufficient social contact with African Americans to acquire the morphosyntactic complexities of AAVE. One implication of these results might be that, over time, phonology and lexical items that were originally associated with AAVE might come to be characteristic of a broader “Hip Hop” culture, while the morphosyntactic features continue to be associated with African-American ethnicity specifically.

2.3 Mixed varieties: Mapping complicated identities onto complicated forms

As alluded to earlier, sociolinguistic inquiry into the relationship of language and ethnicity is becoming more complicated as societies and communities construct ethnicity in increasingly complex ways. The population of multiracial individuals, for example, is increasing dramatically in a number of countries, including the USA, affecting the functions and definition of ethnicity (Zelinksy 2001: 22–23). In the USA, individuals whose parents represent two different ethnic groups might choose to identify themselves as belonging to one of these ethnicities only, to both of them, or to neither, with resulting effects on language (Azoulay 1997; Harriman 2000). In addition, smaller communities may have their own local perspectives on race and ethnicity, and in some cases these may contradict the dominant national ideologies. For example, in the Rhode Island community that Bailey (2000) studied, individuals whose parents represented more than one ethnic group were always referred to clearly as “half X and half Y.” If a person with a single African-American parent described their ethnicity as “black,” it was sometimes challenged, although in many other areas of the country this practice would be unremarkable. Despite these intriguing facts, the use of sociolinguistic variables in the speech of multiracial individuals has not been systematically investigated, yet it no doubt contains crucial insights for the study of language and ethnic identity.
Even an individual who identifies as having a single "ethnicity" must construct an identity at the confluence of a multitude of other social communities, categories, and ideologies about categories, as discussed earlier. Code-switching (as well as other mixed varieties) can provide a particularly effective way of signaling the complexities of minority ethnic identity. By code-switching, individuals can capitalise on the linguistic values associated with both a heritage language and a variety with broader regional, social, and national implications.

At the same time, the mixed variety itself provides a third set of values, often marking, among other things, a generational difference. Speakers in Fought (2003), for example, associated code-switching (or "Spanglish") with the speech of young Mexican Americans born in the US, and explicitly contrasted it with the speech of recent immigrants from Mexico. The use of code-switching to mark complex identities has been documented for many groups in the US, including Puerto Rican Americans (e.g. Zentella 1997), and Korean Americans (Lo 1999). In addition, Milroy and Wei (1995) document the role of Chinese-English code-switching in the construction of ethnic identity by members of a Chinese community in Britain, where the use of certain code-switching strategies was related to ethnic network. Finally, McCormick (2002) documents a mixed variety (Afrikaans and English) in South Africa, used by a group that was classified as multiracial under Apartheid to signal their unique ethnicity.

2.4 The role of "place"

As Johnstone (2004) demonstrates, the role of place in the construction of identity is highly significant. At the same time, we must remember that for ethnic minority speakers the question of "membership" in the wider regional community is a complicated one. The dialect of the dominant European-American ethnic group for an area may be privileged as being representative of "regional speech" in that area, and "sounding white" is often viewed negatively (Jacobs-Huey 1997; Rickford 1992; Wolfram 2000). At the same time, as we saw earlier, different local variables may be interpreted as "local" but unmarked for ethnicity versus specifically signaling ethnic identity. Wolfram and Schilling-Estes (2006) provide another example of this pattern. They note that in some parts of the South, the monophthongal variant of the variable /ay/ is used by both African-American and European-American speakers before voiced consonants, for example in ride or time. The use of this variant before a voiceless consonant (in a word like right), however, is associated specifically with white ethnic identity and not with general regional identity.

An interesting development in sociolinguistic research on language and ethnicity is the study of new dialect formation in areas where there has been a recent shift in the ethnic composition of the area. In North Carolina, for example, there has been a recent increase in the number of Latino residents in areas that until recently were predominantly European-American or African-American, and sociolinguists have been documenting the emergence of new varieties of Latino English. Studying how Latino speakers in these communities negotiate their
identities linguistically provides us with a rare opportunity to see how elements of language in contact settings are woven together over time to create new varieties.

Wolfram, Carter, and Moriello (2004) looked at two communities of this type in North Carolina, addressing the same type of ethnic/regional negotiation that we have seen in other communities. Their focus was on the degree to which second language speakers of English acquire local dialect traits, traits which might then be transmitted to future (native) varieties of Latino English. As in other cases of dialect accommodation that have come up, the various components of the linguistic system seem to play different roles in the formation of new Latino English dialects and their use of resources from local varieties.

For the phonological component, the researchers explored the unglided production of the /ay/ diphthong, characteristic of local European-American and African-American varieties. In general, there was not a widespread assimilation to the local /ay/ variant, but some speakers in the more rural community did show accommodation to the local norm. One adolescent boy produced 63 percent of his diphthongs as unglided, a factor which Wolfram et al. trace to his strong identification with the local “jock” culture. With respect to the lexical component, on the other hand, Wolfram et al. found widespread adoption of forms that signaled local identity, such as the use of second person plural y’all, and the auxiliary fixin’ to. These forms, which were strongly linked to a local identity, were used even by heavily Spanish-dominant speakers, whose phonology and grammar showed little adaptation to local norms. As a new Latino English develops and stabilizes, new permutations of these patterns may emerge, reflecting the integration of ethnic and local identity in different ways.

2.5 The effect of interlocutors

The use of particular linguistic resources in constructing ethnic identity is not a static process. It is a dialogue with others in the speaker’s community and takes place in a context of ideologies about language and about ethnicity. As a speaker moves through multiple communities of practice (Meyerhoff and Strycharz, this volume), performing and highlighting a variety of identities, a flexible linguistic repertoire will be needed. In other words, we need to be able to perform our polyphonous identities at different times and places.

One of the clearest illustrations of this fact is the variation that can be seen when a speaker interacts with different individuals who are perceived as more or less similar to the speaker. The most detailed sociolinguistic study of this phenomenon in the USA is Rickford and McNair-Knox (1994). The researchers compared two interviews with the same young female African-American speaker: one where the interviewer was a 25-year-old European-American woman and one where the interviewer was a 41-year-old African-American woman. As might be expected, the speaker used significantly higher levels of AAVE features with the African-American interviewer.
Another very relevant study is Bell and Johnson (1997), conducted in New Zealand. The authors selected four speakers as research subjects: a Maori ethnicity male, a Maori female, a Pakeha (Anglo ethnicity) male, and a Pakeha female. Each of these people was interviewed three times: once by a person who shared their gender and ethnicity, once by a person of the same sex but the other ethnicity, and once by a person from their same ethnic group but of the opposite sex. Bell and Johnson were able to trace quite specific rises and falls in the levels of linguistic variables as the characteristics of the interviewer were varied. For example, the use of *eh* functioned primarily as a marker of ethnicity (Maori) but also secondarily as a gender marker associated with Maori men. Once again, this underscores the importance of looking at ethnicity in the context of other factors such as gender, rather than in isolation, and confirms that differences between intraethnic and interethnic discourse can have a tremendous effect on the realization of linguistic variables by a particular speaker.

3 The Role of Interethnic Contact

In today's ethnically complex communities, the construction of ethnic identity often takes place in an environment of interethnic and cross-linguistic contact. Of course, the effects of such contact are complex and multi-layered. Theoretically, the issue of linguistic contact among ethnic groups raises some interesting questions, related to the possibility for convergence, divergence, and other phenomena. Sociolinguistic research to date suggests that there is a wide range of variation in the possible effects of interethnic contact, at both the community and the individual levels. In addition, the effects seem to be more closely tied to social and linguistic ideologies than to the nature of the contact itself. As Walt Wolfram (cited in Hazen 2000) notes:

[D]ialect adoption is not a simple matter of who you interact with under what circumstances – it’s a matter of how you perceive and project yourself – much more capturable in cultural identity schemes than interactional reductionism. (Hazen 2000:126)

Studies of interethnic language contact must begin by understanding the context in which speakers in a community construct their own ethnicity, as well as the ideologies that affect how they view other groups.

3.1 Contact between members of dominant and minority ethnic groups

Interethnic contacts between a minority ethnic group and the local European-American majority group play an important role in language variation. Because varieties associated with the dominant group are privileged in the larger social ideologies, it is inevitable that members of minority groups will come in contact
with these varieties in some form – through the educational system, for example, or in the media. Therefore, the construction of identity for speakers who grow up with an ethnically distinct vernacular always takes place in a situation of linguistic contact.

It is important to keep in mind, though, that the mere fact of interethnic contact is not a certain predictor of dialect convergence. We saw in the case of Muzel Bryant (from Wolfram et al. 1999) how, despite having frequent contact with European Americans, her ethnicity served as a significant barrier to integration into the local community. Similarly, Henderson (1996) discusses racial isolation in Philadelphia among African Americans (who seem superficially to be completely integrated into European-American communities), and she reveals how this social distance is reflected in their speech. Both Ash and Myhill (1986) and Labov and Harris (1986) looked at interethnic contacts at the personal level in Philadelphia, and found that the effects of contact were asymmetrical for African-American and European-American speakers. Numerous contacts outside the ethnic group affected the dialects of African-American individuals to a greater degree, and were more likely to affect morphosyntactic variables rather than the phonological system. It is clear from these types of studies that the boundaries of ethnicity can be very strong indeed, rooted in prejudice and a deep sense of the “other.” Even where, on the surface, extensive interethnic contact and integration might seem to be the norm, the study of linguistic variation reveals the underlying preservation and expression of identities divided along the lines of ethnicity.

Another question that arises in terms of contact between majority and minority ethnic groups is whether there are influences from the minority ethnic variety onto the surrounding mainstream version of the regional dialect. Of course, such influence is clearly acknowledged in the realm of the lexicon (see Smitherman 1998), but less investigation of possible phonological and grammatical influences in this direction has been done. Wolfram (1974b) found evidence of African-American influence on European Americans in the South with respect to copula absence (as in, for example, *He my friend* instead of *He is my friend*). Moreover, Feagin (1997) concludes that non-rhoticity (lack of post-vocalic /r/) in European-American dialects of the South was influenced by the speech of African Americans as well. This question provides an interesting path for possible future research.

### 3.2 Contact among minority ethnic groups

In situations where two (or more) minority ethnic groups are in contact, one group may end up borrowing linguistic features or an entire variety from another local minority community. This phenomenon has been well documented for Puerto Rican-American groups, where adolescents in particular have been found to use certain features of AAVE in their English. Wolfram (1974a), for example, found that Puerto Rican speakers in New York who had many African-American contacts used habitual *be*, or had surface realizations of /θ/ as [f] (cf. also Poplack 1978; Zentella 1997). Not surprisingly, the strongest use of AAVE features tends to occur among those who have the most extensive contacts in local African-American
communities. However, as Wolfram (1974a: 200) points out, even those with very few outgroup contacts may assimilate AAVE features from Latino speakers in their social circle who do have such contacts.

Although a majority of studies that have been done have focused on contact between two ethnic groups, there are also situations in which multiple ethnic groups are involved. Wolfram and Dannenberg (1999) discuss the Lumbee Indians of North Carolina, whose history includes a particularly long period (almost 300 years) of tri-ethnic contact among Lumbee, African-American, and European-American groups. They describe the many ways in which the Lumbee have worked towards an identity which goes beyond the white/non-white dichotomy that is the focus of the surrounding culture. Their research on current Lumbee speakers found specific grammatical markers of Lumbee ethnicity (such as regularization of \textit{was} to \textit{were}) that the other varieties in the region do not share. The Lumbee also use features from the local variety of AAVE, but with a slightly different distribution, such as the extension of habitual \textit{be} into non-habitual contexts. A pattern of some shared and some distinct forms was found in the Lumbee phonological system and lexicon as well. The use of variables from outside the community by the Lumbee Vernacular English speakers may serve to reinforce both local ties and a specific and separate ethnic identity.

3.3 Crossing: “borrowing” someone else’s ethnicity

The phenomenon of “crossing,” where speakers deliberately use styles associated with other ethnic groups (Rampton 1995, 1999), represents one of the most interesting current trends in research on language and ethnicity. Given that, as sociolinguistics, we expect speakers to use linguistic variables indicative of their own identity, the deliberate use of forms from an “outgroup,” is of inherent interest.

Two researchers in Britain first documented this phenomenon in detail. Rampton (1995, 1999) looked at the use of several language varieties associated with particular ethnic groups in London (including Jamaican Creole, Asian-accented English, and Punjabi) by young people outside the particular ethnic group, such as Anglo Londoners using “creole.” Hewitt (1982) focused on the role of creole use in black British identity, as well as on its symbolic use by white adolescents. Both of these studies explore the complex attitudes of the ingroup users of a variety toward crossing by outsiders. Hewitt, for example, points out that while black youngsters in London often talk negatively about Anglos’ use of the creole, even to the point of saying “they are stealing our language” (1982: 226), these same adolescents may have Anglo friends among whom they freely encourage creole use. Rampton (1995) discovered that an emblematic use of Punjabi (e.g. swearing terms and stock phrases) by outgroup individuals seemed to reflect a sense of interethnic unity among Asians and their non-Asian friends.

In the USA, Cutler’s (1999) study of “Mike,” mentioned earlier, is particularly revealing about language use and integration into the community. She reports that, although Mike used AAVE features, he clearly was not attempting to construct a black identity for himself, or to be integrated into an African-American
peer group. Instead, he seemed to be “borrowing” elements of the African-American experience, through Hip Hop culture, while maintaining an identity that is “in opposition to the black community” (Cutler 1999: 435). Bucholtz (1999) also argues that crossing does not necessarily represent the breaking down of boundaries between ethnic groups, and that it can in fact be used to perpetuate racial stereotypes.

4 Language Change and Ethnicity

4.1 The focus of research on language in minority ethnic groups

The sociolinguistic research on which current theories of language change (particularly sound change) are based has focused on dominant ethnic communities, often on speakers of European-American ethnicity in large urban settings. Almost all the variationist studies of dialects associated with minority ethnic groups have focused on the following areas:

- grammatical variables that are unique to the community in question, such as habitual *be* in AAVE
- stable variables found also in a number of European-American dialects, such as variation between [in] and [ŋ]
- variation between standard and nonstandard variants, whether grammatical or phonological, including changes that involve either more use of a prestige variant (such as post-vocalic /r/), or less use of a nonstandard variant (such as Ø for third person singular –s).

Surprisingly little has been done on internally motivated sound changes in minority ethnic communities, despite the crucial role that changes in progress have played in sociolinguistic theory.

4.2 Minority ethnic group participation in (local) European-American sound changes

One factor that may have contributed to the inadequate research on phonological change among minority ethnic groups is the finding in a number of studies that members of these groups were not participating in the local sound changes affecting European-American speakers (e.g. Labov 1966; Labov and Harris 1986; Bailey and Maynor 1987). Taken as a group, these studies were originally interpreted as illustrating a general fact about the role (or lack thereof) of non-European-American speakers in sound change. Labov (1994), for example, comments on the non-participation of minority speakers in regional vowel shifts by suggesting that they “are instead oriented to a national pattern of koine formation within the nonwhite groups” (1994: 157). This claim was made particularly strongly for AAVE, and it dovetailed with another early mistaken assumption about AAVE in
particular: that it was a unitary variety, a myth which will be discussed in more detail below.

As minority ethnic communities in new places have begun to be studied by sociolinguists, more cases of participation in local sound changes (including those characteristic of European-American speakers) have been documented. Such patterns of drawing on a local regional style as well as one that signals ethnicity specifically are not new. Labov’s (1963) classic study of Martha’s Vineyard, for instance, revealed that the Portuguese and the Native-American groups on the island were participating in the centralization of (aw) and (ay). Also, Poplack (1978) found that among Puerto Rican children in Philadelphia there was evidence of phonological influences from the European-American local community. Most notably, the children were participating in several Philadelphia vowel shifts, including the fronting of /ow/ and the raising and backing of the nucleus of /ay/ before voiceless consonants.

Still, there are only a handful of recent studies focusing on sound changes in minority ethnic communities, and most of these do so in relation to changes taking place in the matrix dialect. My research on Mexican-American speakers in Los Angeles (Fought 2003) revealed that these speakers are taking part in sound changes characteristic of the local European-American community (as documented by Hinton et al. 1987), namely /u/-fronting, /æ/-backing, and /æ/-raising. The social factors that correlated with the use of these variables included gender, social class, and gang status, and the three factors interacted with one another in complicated ways to index different styles relevant in the local community. Similarly, in one of the few sociolinguistic studies focusing on an Asian-American community, Hall-Lew (2009) found that Asian Americans in San Francisco were participating in (and sometimes even leading in) local sound changes taking place among European Americans.

Interestingly, Fought (2003) showed that the “curvilinear pattern” (Labov 1980) of interior social classes leading changes from below did not apply among Chicano English speakers. The effects of gang status and gender were more powerful than those of social class with respect to the use of local variables in this community. This serves as a good reminder that, until more research is done on change in minority ethnic communities, we cannot be certain which patterns associated with change among European Americans will apply. The negotiation of ethnic identity in a regional context has clear implications for patterns of sound change, and sociolinguistic theory would benefit greatly from more information about how this negotiation affects linguistic shifts.

4.3 Other studies of change in ethnic minority communities

As mentioned in Section 4.1, there has been a fair amount of research on shifts toward more use of standard forms within minority communities, with many of these studies focusing on morphosyntactic variables. One very interesting study in this group is Nichols (1983). Her fieldwork with African-American speakers in
a rural area of coastal South Carolina revealed complex correlations of gender with the use of creole-like vs. standard forms. In particular, while there was little difference between the oldest groups of men and women, young and middle-aged women led in the use of standard forms. Nichols shows how this pattern is related to different economic and employment opportunities for men and women of the younger generation. Similarly, Rickford (1992) looked at six different morphological and syntactic variables among African Americans in East Palo Alto. Rickford’s results are intriguing in that the younger speakers in the study showed decreasing use of some nonstandard forms, but increasing use of others.

The studies discussed so far were motivated by questions about how the minority ethnic dialects fit in with the local European-American vernaculars. To my knowledge, there has not been a single large-scale study of sound change internal to an ethnic minority community. That is, nobody has looked for sociolinguistic patterns of vowel shift within, say, an African-American community, in the same way that such shifts have been studied for European-American speakers in Philadelphia, Detroit, and so on, focusing on the internal phonological system of the dialect without reference to European-American varieties. Sound changes are a universal feature of languages over time, and as such must be present in AAVE, Chicano English, and so on. Research on this topic could make great contributions to sociolinguistic theory.

Why has so little been done on this topic? It is easy to fall into a pattern of treating minority ethnic groups as marked, as the “other,” even for researchers who themselves come from historically marginalized backgrounds. Debates about divergence and convergence, the study of interethnic contacts, the findings about when ethnic minority speakers do or do not participate in European-American sound changes, all have contributed to the field of sociolinguistics as a whole. Yet all of them can be seen as lenses for viewing the dialects of ethnic minority groups relative to a European-American standard. Even research on features such as habitual be is based in part on the fact that such features are perceptually salient due to their absence in other dialects. Researchers on ethnic minority communities and language should be confident in taking an “internal” approach to their topic, and moving beyond comparisons with European Americans, to the benefit of sociolinguistic theory in the future.

5 Myths, Realities, and Directions for the Future

5.1 Regional differences in minority ethnic dialects

Decades of studying language variation and change in minority ethnic groups has enabled linguists to contribute to overturning dangerous language ideologies, both in the larger society and in our local communities. It is beyond the scope of this chapter to explore such contributions in detail; many other excellent resources are available, such as Rickford (1999), which looks at the effects of language ideologies in education, as well as Wolfram (this volume), which provides an overview of various types of sociolinguistic educational programs benefiting a wide
range of communities. In the process of addressing mistaken “folk” ideas about language, however, linguists have also generated a number of incorrect assumptions of their own. One is the claim that speakers of other ethnic groups do not participate in sound changes taking place among European-American speakers, as discussed in Section 4.2. Another is the assumption of uniformity among particular ethnic varieties, and the resulting neglect of questions of regional variation within ethnically marked varieties. This pattern has been particularly salient in discussions of AAVE.

Historically, sociolinguists working on AAVE gave primary importance to the grammatical similarities in the dialect that were found across the country. For example, Wolfram and Schilling-Estes (2006) give the following summary of regional variation in AAVE in the textbook American English (Second Edition), which, though not completely evident from its title, is a comprehensive, up-to-date survey of sociolinguistic topics:

> While admitting . . . regional variations, it is necessary at the same time to point out that one of the most noteworthy aspects of AAE is the common set of features shared across different regions. Features such as habitual be, copula absence, inflectional –s absence, among a number of other grammatical and phonological structures, are found in locations as distant as Los Angeles, California; New Haven, Connecticut; Austin, Texas; and Meadville, Mississippi, cutting across both urban and rural settings. The foundation of a core set of AAE features, regardless of where it has been studied in the United States, attests to the strong ethnic association and supraregional dimension of this language variety. (Wolfram and Schilling-Estes 2006: 218; italics added)

This passage summarized accurately, until very recently, the prevailing stance of sociolinguists toward the issue of regional variation in AAVE. It was known that there were some regional differences, but generally these were taken to be minor, relative to differences among European-American populations.

Fortunately, sociolinguists have now adopted a critical stance toward their own assumptions in this regard. Wolfram (2007) is a particularly detailed and clear discussion of the origins of this myth of uniformity within sociolinguistics, and of the evidence indicating that in fact there is regional variation in AAVE, just as we would expect in a context where we view this variety as a non-exotic, non-marginal variety of American English. Wolfram also discusses other myths around AAVE, such as the assumption that change in this variety would be unilateral, moving in a single direction across the country. There is still a need for more research on the question of AAVE and regional variation. We should find out more about exactly which subsets of AAVE morphosyntactic features are definitely characteristic of multiple regions, as well as exploring the phonological features which are clearly not common across regional variants of AAVE.

### 5.2 Other areas for future study

One crucial direction for future research, in my view, is the study of sound change within ethnic minority communities, as discussed above. Sound change has had a central role in sociolinguistic theory, and yet the vast majority of our data on this phenomenon comes from European-American communities. Along with these
projects, an in-depth study of regional dialect differences within AAVE and other dialects across the USA would be extremely interesting. In addition, there is a need for more studies of a wider range of language features; in particular, the area of intonation in studies of AAVE, Chicano English, and other dialects has been fairly sparse, although the few studies that exist suggest that this would be a very fruitful area (e.g. Thomas 1999; Fought and Fought 2002). Further, while there has been some exploration of how gendered ethnic identities are constructed (e.g. Barrett 1999; Troutman 2001) there is room for much more analysis of these complex identity practices. Research into these questions would contribute greatly to modern sociolinguistic theory.

More studies on US communities that are neither African-American nor Latino are also badly needed. There has been some work on Native-American communities (e.g. Leap 1993; Anderson 1997; Wolfram and Dannenberg 1999) but much less than for other groups. With the exception of Hall-Lew (2009), there is very little in-depth sociolinguistic study of Asian-American groups at all. In addition, more research on communities outside the USA, particularly in areas where ethnic differences are an important part of the social structure, is also critical. For example, South Africa, post-apartheid, may be the most interesting setting for sociolinguistic research in the world right now. A related but separate area that has received very little attention from linguists is, as mentioned above, the construction of ethnicity by multiracial speakers. Not everyone belongs unequivocally to a single ethnic group. Investigation of the speech of such individuals, along with an in-depth study of their construction of identity, both personally and within a community, could provide an exciting new area for sociolinguistic research on language and ethnicity. In listing these lacunae, we see reflected the youth of the field of sociolinguistics as a whole. But we also see the great opportunity available to future generations of linguists.

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NOTES

1 See Fought (2006) for a more detailed discussion.
2 See Fought (2010) for more on this topic.
3 Bailey and Thomas (1998) is possibly the closest, but it focuses on individuals, and ultimately on a comparison with European-American varieties.
4 It is, in my view, particularly laudable that Wolfram looks critically at his own work and his own contributions in this regard.
REFERENCES


Wolfram, Walt, Hazen, Kirk, and Schilling-Estes, Natalie (1999) Dialect Change and...


Part VI  Domains
An individual’s social network is straightforwardly the aggregate of relationships contracted with others, and social network analysis examines the differing structures and properties of these relationships. Such analysis has been applied by variationists fairly extensively over the last three decades or so to explicate informal social mechanisms supporting language varieties specific to particular social groups. Researchers have also addressed the question of how some social groups maintain nonstandard dialects or minority languages, often over centuries, despite pressures (of the kind described by Lippi-Green 1997) to adopt publicly legitimized national languages or varieties.

Social network is better treated as a means of capturing the dynamics underlying speakers’ interactional behaviors than as a fixed social category (see Eckert 2000: 1–33 for a discussion of different concepts of “speaker variables”). Given that the ties contracted by individuals within and between speech communities may change for many reasons, analysis of change in the operation of the social network mechanisms that support localized linguistic codes can illuminate the phenomenon of linguistic change. Network-oriented accounts of linguistic change have emerged both in variationist studies of contemporary speech communities and as post hoc sociohistorical studies of changes completed at earlier stages of the language (Lippi-Green 1989; J. Milroy 1992; Milroy and Milroy 1985; Nevalainen 2000; Tieken-Boon van Ostade 2000; Marshall 2004; Bergs 2005; Fitzmaurice 2007; Sairio 2009 and others).

Some recent analyses build on Milroy’s proposal that, along with network content and structure, attitudinal factors provide a basis for measurement of speakers’ integration into the community (L. Milroy 1987: 140). Sensitivity to aspects of speaker agency, attitude, or orientation aligns social network analysis
somewhat more closely with the communities of practice model (see Meyerhoff and Strycharz, this volume), although social network accounts of groups or communities are generally rather more abstract – referring, for example, to locality, region, or group of language users. However, a partial convergence of the two approaches can be seen in some recent studies which have utilized the friendship network as a means of grouping speakers; a method which, to some extent, falls between the social network and the community of practice approaches (for examples, see work on ethnic varieties among adolescent speakers by Fox (2010), Cheshire et al. (2008), and Gabrielatos et al. (2010), among others; see also Kirkham and Moore, this volume, for an overview of language and adolescence).

1  The Concept of Social Network

Social network analysis of the kind employed by variationists was developed by social anthropologists mainly during the 1960s and 1970s (see L. Milroy 1987; Li 1996; Johnson 1994). Scholars from many different disciplines employ the concept for a range of theoretical and practical reasons. Personal social networks are always seen as contextualized within a macro-level social framework, which is “bracketed off” for purely methodological reasons – that is, to focus on less abstract modes of analysis capable of accounting more immediately for the variable behavior of individuals. Since no one claims that personal network structure is independent of broader social, economic, or political frameworks constraining individual behavior, a social network analysis of language variation does not compete with an analysis in terms of a macro-level concept such as social class.

A fundamental postulate of network analysis is that individuals create personal communities which provide a meaningful framework for solving the problems of daily life (Mitchell 1986: 74). These personal communities are constituted by interpersonal ties of different types and strengths, and structural relationships between links can vary. Particularly, the persons to whom ego is linked may also be tied to each other to varying degrees – ego being the person who, for analytic reasons, forms the “anchor” of the network. A further postulate with particular relevance to language maintenance or change is that structural and content differences between networks impinge critically on the way they directly affect ego. Particularly, if a network consists chiefly of strong ties, and those ties are multiplex or many-stranded, and if the network is also relatively dense – that is, many of ego’s ties are linked to each other – then such a network has the capacity to support its members in both practical and symbolic ways. More negatively, such a network type can impose unwanted and stressful constraints on its members. Thus, we come to the basic point of using network analysis in variationist research. Networks constituted chiefly of strong (dense and multiplex) ties support localized linguistic norms, resisting pressures to adopt competing external norms. By the same token, if these ties weaken, conditions favorable to language change are produced. The idealized maximally dense and multiplex network is shown in Figure 19.1 in contrast with a loose-knit, uniplex type of network shown in Figure 19.2.
A social network may be seen as a boundless web of ties which reaches out through a whole society, linking people to one another, however remotely. Indeed, the term “social network” is now more commonly associated with the web-based service where users interact over the internet (for research on online social networks, see, for example, Garton, Haythornthwaite, and Wellman 1997; Paolillo 2001). However, sociolinguistic research has generally focused on face-to-face interaction, and usually on first-order network ties – that is, those persons with whom an individual directly interacts. Second-order ties are those to whom the link is indirect, as shown also in Figure 19.1. Within the first-order zone, it is important to distinguish between “strong” and “weak” ties of everyday life – roughly ties which connect friends or kin as opposed to those which connect acquaintances. To supplement the notions of multiplexity and density, Milardo distinguishes “exchange” from “interactive” networks (1988: 26–36). Exchange networks consist of persons such as kin and close friends with whom ego not only interacts regularly but also exchanges direct aid, advice, criticism, and support. Interactive networks, on the other hand, consist of persons with whom ego interacts frequently and perhaps over prolonged periods of time but on whom he or
she does not rely for material or symbolic resources. An example of an interactive
tie would be that between a store owner and customer. In addition to exchange
and interactive ties, Li (1994) distinguishes a “passive” tie, which seems particu-
larly important to migrant or mobile individuals. Passive ties entail absence of
regular contact, but are valued as a source of influence and moral support. Exam-
pies are physically distant relatives or friends.

2 Social Networks and Language Variation:
Methods and Findings

This section reviews some variationist studies which have employed the network
concept, and begins by noting that the effect of interpersonal relationships on
language choices has long been explored in sociolinguistics; witness Gauchat’s
(1905) account of variation in the vernacular of the Swiss village of Charmey.
Much later, Labov’s (1972) sociometric analysis of the relationship between lan-
guage use and the individual’s position in the group resembles in important
respects Eckert’s account of communities of practice as the sites where linguistic
norms and social meaning are co-constructed (see also Cheshire (1982) and Moore
(2010) for comparable accounts of language variation in adolescent peer groups;
see Kirkham and Moore, this volume, for an overview). Following an ethno-
graphic, non-quantitative tradition of research which has strongly influenced vari-
ationist methods, Gumperz (1982) provides an extensive discussion of the effects
of changing network structures on language choice in bilingual communities.
Chambers (2009: 74–75) identifies Milroy and Milroy’s study in Belfast, Northern
Ireland, in the mid-1970s (Milroy and Milroy 1978; L. Milroy 1987) as the first
systematic account of the relationship between language variation and social
network structure in the variationist literature. In this section, we discuss some of
the major methods and findings of this research, before reviewing two later studies
which take it as a point of departure.

An ethnographically oriented data-collection procedure was used in Belfast
whereby the researcher introduced herself to initial contacts as a “friend of a
friend” – that is, a second-order network contact of these individuals. Crucially,
the unit of study was the pre-existing social group, rather than a series of isolated
individuals as representatives of particular social categories. Data were collected
from 46 speakers from three low-status urban working-class communities – Bal-
lymacarrett, Hammer, and Clonard. Eight phonological variables, all of which
were clearly indexical of the Belfast urban speech community, were analyzed in
relation to the network structure of individual speakers. In all three communities
networks were relatively dense, multiplex, and often kin-based, corresponding to
those regularly described as characteristic of traditional, long-established com-
unities minimally impacted by social or geographical mobility (see, for example,
Young and Wilmott 1962; Cohen 1982).

Although a social class index of the kind used in the early days of sociolinguis-
tics could not discriminate between these speakers, the extent of individuals’ use
of vernacular variants was found to be strongly influenced by level of integration into neighborhood networks. Such differences in personal network structure clearly spring from many complex social and psychological factors, and so interact with a number of other variables; examples are generation cohort, the recent history of the neighborhood, and gender, which we comment on here.

Men in the Belfast neighborhoods generally contracted denser and more multiplex localized network ties than women, and network structure correlated with language use patterns differently for men and women. A similar disjunction between the effect of male and female networks is reported in Dubois and Horvath’s (1998) variationist account of Cajun English. And Labov found significant correlations between network and sound change only in female speakers in Philadelphia (2001). Eckert confirms and elaborates the strongly gendered character both of network clusters and of the network/language relationship (2000: 120–124). Noting a tendency for women to contract ties across a wider social spectrum, Chambers (2009: 135–136) attributes the frequently observed tendency of men to approximate more closely than women to vernacular norms to this difference in network structure, apparently common in developed countries at least.

2.1 Measuring social network structure

Given the ethnographic orientation of social network analysis, a major challenge for variationists is to devise a procedure for characterizing differences in network structure that reflects the everyday social practices of speakers. The Belfast study developed a Network Strength Scale to assess speakers’ network characteristics on five indicators of multiplexity and density (for further detail see L. Milroy 1987: 141f). The relevant indicators were:

- membership of a high-density, territorially based group (e.g. one organized around a sport or pastime);
- having kinship ties with more than two households in the neighborhood;
- same workplace as at least two others from the neighborhood;
- same workplace as at least two others of the same gender from the neighborhood;
- voluntary association with workmates in leisure hours.

The strongest vernacular speakers were generally those whose neighborhood network ties were the strongest. Figure 19.3 illustrates this tendency in Ballymacarrett, where patterns of use for the variable (th) are plotted against network structure. The variable pattern represented here is the presence vs. absence of the voiced interdental fricative [d] in intervocalic contexts in such words as mother and brother; deletion scores for each speaker, whose age group and gender are also specified, are plotted as percentages against individual network strength scores. The interacting effects of gender and network noted above are evident in these data.
2.2 Network analysis in small-scale communities: Some examples

The attractions for variationists of a network approach can be stated quite briefly. First, it provides a set of procedures for studying small groups where speakers are not discriminable in terms of any kind of social class index – as, for example, the eastern US island communities investigated by Wolfram, Hazen, and Schilling-Estes (1999). Other examples are minority ethnic groups, migrants, rural populations, or populations in nonindustrialized societies.

A second advantage is that social network is intrinsically a participant rather than an analyst concept, and so has the potential to elucidate the social dynamics driving language variation and change. Finally, network analysis offers a procedure for examining variation between individual speakers, rather than between groups constructed with reference to predetermined social categories. Eckert (2000: 1–33) discusses the very different concepts of a social variable implied here.

Bortoni-Ricardo’s (1985) account of the sociolinguistic adjustment of rural migrants to Brazlandia, a satellite city of Brasilia, addresses the changing language behavior of mobile individuals, all of whom were relatively poor. Taking the migrants’ own linguistic norms as a starting point, Bortoni-Ricardo examined the extent to which speakers had moved away from the stigmatized Caipira dialect, rather than attempting to identify a linguistic standard “target.” She suggested that the change in social structure associated with rural to urban migration involved a move from an “insulated” network consisting largely of kinsfolk and neighbors to an “integrated” urban network where ties are contracted in a wider range of social contexts. The linguistic counterpart of this change is increasing dialect diffuseness – a movement away from relatively focused dialect norms (see further Le Page and Tabouret-Keller 1985). Two separate network indices are constructed to measure the changing patterns of the migrants’ social relationships; the *integration index* and the *urbanization index*.

The integration index assesses relevant characteristics of the three persons with whom each migrant most frequently interacts – for example, whether they are kin or non-kin, whether ties were contracted prior to migration. The final score measures progress in the transition from an insulated to an integrated type of network – effectively the gradual loosening of close-knit network ties. These changes are correlated with a linguistic movement away from the norms of the Caipira dialect. The urbanization index focuses not on the migrant, but the characteristics of members of his or her personal network, such as educational level and mobility; indicators are selected to assess the extent to which the migrant’s contacts are integrated into urban life. In developing these two quite different types of index Bortoni-Ricardo extends the application of the network concept beyond an analysis of small, close-knit groups of the kind described so far to consider the extent
to which individuals have detached themselves from such groups and the linguistic consequences of that detachment.

Marshall (2004) applies the network concept to a rural community in his study of the Doric dialect spoken in Huntly in the North East of Scotland. Using the framework in conjunction with Højrup’s (1983) theory of life-modes and Pedersen’s (1994) later extension of it, Marshall builds sociological and linguistic indices for individuals and tests for correlations between indices. A mental urbanization questionnaire measures informants’ orientation to the rural area versus the nearby city of Aberdeen, and finds that speakers with the most positive orientation towards the city use correspondingly fewer dialect forms. He reports that while integration into social networks in itself does not correlate with use of or attitude towards vernacular forms, attitude and orientation towards the local group and relevant outgroups is a powerful predictor of language behavior. In incorporating this attitudinal dimension to social network analysis, Marshall proposes a model in which speaker agency is foregrounded, and concludes that the network framework would be greatly improved by taking account of attitudinal factors (2004: 216).

3 Language Maintenance and Shift in Bilingual Communities

Although the discussion so far has concentrated on the language/network relationship in monolingual communities, researchers investigating the social mechanisms of language maintenance and shift in bilingual communities have employed a variant of the same general principle: networks constituted chiefly of strong ties function as a mechanism to support minority languages, resisting institutional pressures to language shift, but when these networks weaken, language shift is likely to take place. Some of this work is reviewed below (see also Sankoff, this volume, for an overview of variationist studies of bilingualism).

It has sometimes been suggested that close-knit networks such as those studied in Belfast and Detroit are marginal to contemporary urban life. While this perception certainly reflects important aspects of contemporary urban life (we shall later discuss the linguistic consequences of social and geographical mobility) it does not tell the whole story. Certainly, traditional working-class communities like the Italian-American “urban villagers” described by Gans (1962) or the close-knit Yorkshire mining communities described by Dennis, Henriques, and Slaughter (1957) have all but disappeared. However, Giddens (1989) points out that neighborhoods involving close kinship and personal ties seem still to be created rather than discouraged by city life, since those who form part of urban ethnic communities gravitate to form ties with, and often to live with, others from similar linguistic or ethnic backgrounds. Hence, the older style of close-knit working class community is apparently being replaced in industrialized countries by similar types of community created by newer immigrants. Dabène and Moore (1995) describe
the supportive function of such migrant networks during the period when immi-
grants are developing resources to integrate more fully into urban life.

The type of close-knit network structure that seems to help maintain commu-
nity languages is therefore by no means a residue of an earlier type of social
organization; not only recent immigrants but also long-term stigmatized and
marginalized minorities, like the New York Puerto Ricans studied by Zentella
(1997), construct personal communities which function as powerful support
systems in a hostile environment. Gal (1978) and Li (1994), whose work is dis-

cussed in more detail below, have correlated observed patterns of language use
with specific network patterns in much the same way as researchers working in
monolingual communities. Indeed, Gal explicitly compares her model of language
shift to a variationist model of language change, in being both gradual and rooted
in synchronic patterns of variation in language use.

Gal’s (1978) analysis of language shift in the bilingual German/Hungarian
community in Oberwart, Austria, measures individuals in terms of the relative
“peasantness” (a local social category) of their networks. This variable operates
differently for men and women (recall this pattern in other network studies) but
is found to correlate more closely than individual peasant status with patterns of
language choice. Oberwart had been bilingual for several centuries, and changes
in network structure (and subsequent language shift) are associated with higher-
level economic changes. In immigrant communities, however, a pattern of language
shift over three generations is common, reflecting intense pressure on members
to assimilate to the monolingual norm of the host country. Grosjean (1982) and
Jørgensen (1998) describe these pressures in the United States and Europe,
respectively.

Li (1994) and Milroy and Li (1995) report an investigation of social trajectories
of language shift which associates different network types with variable patterns
of language choice. Three Chinese migrant groups are distinguished, overlapping
with (but not exactly corresponding to) a grandparent, parent, and child genera-
tion. Each group contracts characteristically different types of network ties, the
first associating mainly with kin, the second chiefly with other British Chinese,
and the third more extensively with non-Chinese peers. Variable network patterns
are in turn correlated with seven different patterns of language choice, where
English and various Chinese languages were used either monolingually or in dif-
ferent combinations. Following Milardo (1988), interactive and exchange networks
were distinguished, corresponding roughly to “weak” and “strong” types of tie.
A comparative analysis of individual exchange networks was based on a list of
up to 20 persons who constituted significant and regular contacts for each indi-

dual, adapting the procedure described by Mitchell (1986). These sets of 20 could
then be compared on relevant dimensions – for example, different ethnic composi-
tions. Not surprisingly, the strongest ethnic networks were associated both with
the oldest generation and with the most extensive use of Chinese, and the weakest
with the British-born generation and with the most extensive use of English. There

were, however, many subtleties associated with different network patterns within
each group; particularly interesting is the role of the True Jesus Church, one of the
community’s institutions. Li (1995) documents a very much stronger pattern of Chinese language maintenance amongst the young British-born members of the True Jesus Church than amongst the young community as a whole, a pattern attributed to the strong ties maintained by True Jesus youngsters with church members who were monolingual in Cantonese. Thus, a network analysis can help explain not only the social trajectory of language shift, but specific patterns of code-switching (see also Labrie’s (1988) network-based account of code-switching by Italians in Montreal).


Authors of recent studies in non-Western contexts report that social network analysis is less successful in predicting patterns of language maintenance and shift. Investigating the minority immigrant community of Malayalees in multilingual Malaysia, Govindasamy and Nambiar (2003) find that the Malayalees interact socially with their own ethnic group but that the language of interaction is increasingly shifting from Malayalam to English in response to external pressures. Mukherjee (2003) examines code choice in relation to social networks among multilingual Bengali women in Malaysia, but argues that the women’s marriage choices specifically, rather than personal social network structure, directly affect language loss and language maintenance.

4 Weak Ties and Theories of Language Change

Social network analysis has most commonly been employed in communities where ties between speakers are generally strong. While studies such as those reviewed above show that it is relatively straightforward to operationalize the network concept in such communities, how to handle socially and geographically mobile speakers whose personal network ties are not predominantly dense or multiplex is much less obvious. Yet, geographical and social mobility is the rule rather than the exception in contemporary cities, and an increasing amount of work carried out by variationists within dialect contact frameworks focuses on mobile speakers (see, for example, Trudgill 1986; Watt 2002; Kerswill and Williams 2005; Auer, Hinskens, and Kerswill 2005; Britain 2010; Cheshire et al. 2011; see also
the chapters in Part VII of this volume). Chambers (1992) points out that dialectology was traditionally oriented to non-mobile speakers in isolated communities, and that sociolinguistics has sometimes struggled to accommodate mobile populations. The focus of network studies over three decades has reflected this orientation.

At a purely operational level, loose-knit networks are hard to work with. Analysis of close-knit networks involves comparing speakers who differ from each other in certain respects (e.g. multiplexity of ties contracted at the workplace) but are still similar enough in other relevant ways for a comparison to be meaningful. But it is difficult to see how the loose-knit network structures of individuals who differ from each other in many different respects (for instance, in their educational level, occupation, region of origin, or mobility) might meaningfully be compared.

To identify these operational difficulties is not to suggest that loose-knit networks are uninteresting to variationists: quite the contrary. For if a close-knit network structure supports localized linguistic norms and resists change originating from outside the network, the corollary, that communities composed of weak ties will be susceptible to such change, is also likely to hold. Following Granovetter’s (1973) argument that weak and apparently insignificant interpersonal ties (of “acquaintance” as opposed to “friend,” for example) are important channels through which innovation and influence flow from one close-knit group to another, Milroy and Milroy (1985) proposed that linguistic innovators are likely to be individuals positioned to contract many weak ties. Since weak ties link close-knit groups to each other and to the larger regional or national speech community, they are likely to figure prominently in a socially accountable theory of linguistic diffusion and change.

Milroy and Milroy (1985) argue that a “weak tie” model of change can account rather generally for the tendency of some languages to be more resistant to change than others (Icelandic vs. English, or Sardinian vs. Sicilian, for example). They suggest that a type of social organization based on overlapping close-knit networks will inhibit change, while one characterized by mobility (for whatever reason), with a concomitant weakening of close ties, will facilitate it. Although it may at first seem counterintuitive, this model of change is plausible for several reasons, as suggested by Granovetter (1973). First, persons central to a close-knit, norm-enforcing group are likely to find innovation of any kind socially risky but the adoption of an innovation already on the fringes of the group less so. Second, weak ties are generally more numerous than strong ties, providing links to many more individuals. Conversely, information relayed through strong ties tends not to be innovatory, since strong tie contacts are likely to be shared (that is to belong to overlapping networks). Thus, mobile individuals who have contracted many weak ties but occupy a position marginal to any given cohesive group are in a favorable position to diffuse innovations.

Interestingly, this argument is consistent with the traditional assumption of historians of language that the emergent, mobile merchant class was largely responsible for the appearance of northern (and other) dialectal innovations in Early Modern London English (see, for example, Baugh and Cable 1978: 194).
Using standard variationist methods, historical sociolinguists are able to examine systematically the social trajectories of such earlier changes with attention to the effects not only of social network but of gender and social status as well (Nevalainen 1999; Nevalainen and Raumolin-Brunberg 1996, 2003; Tieken-Boon van Ostade, Nevalainen, and Caon 2000). Thus, as well as explaining different large-scale linguistic outcomes by comparing different types of social organization, the weak tie model can address specific problematic examples of change.

5 Social Network, Social Class, and Mobility

The weak tie model of change discussed above can illuminate dynamics of dialect leveling – that is the eradication of socially or locally marked variants (both within and between linguistic systems) in conditions of social or geographical mobility and resultant dialect contact. Leveling might reasonably be viewed as a linguistic reflex of the large-scale disruption, endemic in the modern world, of close-knit, localized networks which have historically maintained highly systematic and complex sets of socially structured linguistic norms. Such disruption arises from (for example) internal and transnational migration, war, industrialization, and urbanization. While these dynamics have operated earlier and more intensively in colonial contexts, as discussed by Chambers within a broad social network framework (2009: 65–66), they continue to affect geographically or socially mobile populations. In any event, leveling gives rise to simplification, and a tendency for the localized norms of the kind supported by a close-knit network structure to become obliterated (Britain 1997; Watt and Milroy 1999; Kerswill 2003; Britain 2010; see also the chapters in Part VII of this volume). This process raises interesting psycholinguistic as well as sociolinguistic issues concerning the functions of close-knit networks, as outlined below.

On the basis of evidence from language attitudes research, sociolinguists generally assume an ideological motivation to underlie the long-term maintenance of often stigmatized norms in the face of pressures from numerically or socially more powerful speech communities; speakers want to sound (for example) Welsh, Irish, Northern English, New Zealandish, Canadian, African-American, American Southern and unlike whatever social group they perceive themselves as contrasting with. The dialect loyalty of such speakers and their resistance to change originating from outside the group is usually said to be motivated by their desire to index group identity. This socioindexical function of forms has recently been examined experimentally with attention to social network structure and the perceptual relevance of rhythm among Maori English and Pakeha English speakers in New Zealand (Szakay 2008). Listeners who were more closely integrated into Maori social networks are reported to be significantly better at using rhythm to cue ethnicity than those who were less integrated. Szakay thus demonstrates the role the social network plays in accounting not only for variable frequency of forms used but also for speakers’ accuracy in identifying ingroup and outgroup members.
While attitudes and awareness of social indexicality play a key role in the persistence of localized forms, the motivations to index group identity alone are insufficient to maintain nonstandard varieties reliably (see Wolfram, Hazen, and Schilling-Estes (1999) for a discussion of this issue in an American context). Relevant here is Payne’s (1980) demonstration of the social conditions needed for children to learn the highly localized phonolexical complexities of the Philadelphia system; particularly, their parents needed to be locally born for such learning to take place. What this amounts to is that, if a close-knit community network structure loosens and members become mobile, the social prerequisites for supporting highly localized norms disappear and dialect leveling takes place. Thus, not only does a community’s sense of distinctiveness become redundant as network ties loosen (a social and ideological issue) but, from a psycholinguistic perspective, speakers lack the extensive and regular input needed to maintain localized norms.

Such norms are sometimes complex; for example, Belfast speakers whose networks are relatively loose-knit reduce the number of linguistically conditioned allophones of /a/ by eliminating the extreme back and front variants characteristic of the vernacular system, often converging on a very narrow area of vowel around the centre of the vernacular range (J. Milroy 1982; L. Milroy 1999). Thus, close-knit networks may be viewed not only as social and sociolinguistic support mechanisms which facilitate the construction and maintenance of local distinctiveness; from the point of view of the language learner, they also provide the intensive input required to master complex, localized linguistic structures which lack the support of institutional models. By way of example, Docherty et al. (2006) document the daunting (socio)linguistic complexity encountered by infants acquiring the phonology of their ambient Tyneside dialect. Leveling, which from this cognitive perspective can be viewed as a simplification strategy, takes place when such input is no longer present (see Trudgill (2011) for discussion of the social conditions in which both simplification and structural complexity flourish).

We conclude by considering the links between mobility, social network structure, and social class. Following Giddens (1989: 205–273), class is viewed here as one of four systems of stratification which promote inequality in society. While the other three (slavery, caste, and estates) depend on institutionally sanctioned inequalities, class divisions are not officially recognized, and since an individual’s class position is to some extent achieved, class stratification is accompanied by varying degrees of mobility. Issues of power inequalities between groups and individuals are raised in this discussion, which so far have only been touched upon.

Different types of network structure seem to be broadly associated with different social classes: loose-knit networks with the socially and geographically mobile mainly middle classes, and close-knit ties with very low status and very high status speakers. In terms of the predictions of the weak tie model of change discussed above, this association is consistent with Labov’s principle that innovating groups are located centrally in the social hierarchy, characterized as lower-middle
or upper-working class (1980: 254). The question then arises of how an integrated model of change and variation might be constructed which takes account of the relationship between social class and social network structures. Such an integration is desirable, since the association of different network types with different social class groups is not arbitrary but springs from the operation of large-scale social, political, and economic factors (contra Guy (1988), who views network and class as unrelated but pertaining, respectively, to a micro- and macro-level of analysis).

Traditionally, sociolinguistics has assumed a consensus model of class, where the community is said to be fundamentally cohesive and self-regulating. Yet, the vitality and persistence of nonstandard vernacular communities highlighted by network studies is more readily interpreted as evidence of conflict and division than of consensus. Accordingly, Milroy and Milroy (1993) argue that a dynamic model of class as a process which splits the community into subgroups (characterized by different orientations to work, leisure, and family) is helpful in constructing an integrated theory of variation and change (see further Højrup’s (1983) work on life-modes).

With the link between social class and network structure as their point of departure, Kerswill and Williams (1999) investigated the relationship between social class, mobility, and susceptibility to change by comparing the language behavior of low- and high-mobility speakers of different social statuses in the English towns of Reading and Milton Keynes. They conclude that network structure has the predicted effect – that is, close-knit networks maintain localized norms, while loose-knit networks facilitate change. However, they argue that the variables of class and network need to be considered independently, given the different language behaviors of mobile high-status and mobile low-status groups.

Further light is shed on the links between class and network by research currently in progress in the North East of England, which examines differences between members of low-status groups who are classified as either working and mobile (those commuting within the region) or long-term unemployed and non-mobile. Use of highly localized phonological features rather than supralocal forms, and orientation to highly localized, close-knit communities rather than (sub)regional centers of gravity are investigated in relation to this widening social division (see further Llamas et al. forthcoming).

While the relationship between class, network, and mobility is evident, its precise character is as yet unclear, as are the linguistic outcomes associated with interactions between these social variables. However, since they are constructed at different levels of abstraction, it is likely that a two-level sociolinguistic theory would be helpful. Such a theory should link the small-scale networks, where individuals are embedded and act purposively in their daily lives, with larger-scale social structures which determine relationships of power at the institutional level. The different sociolinguistic patterns associated with both strong and weak ties would need to be considered, with attention to recent research on the sociolinguistics of mobility (see for example Britain’s (2010) work on routinization and supralocalization). For while strong ties give rise to a local cohesion of the kind
described by network studies of close-knit neighborhoods such as those in Belfast or Detroit, they lead also to overall fragmentation in the wider community. Conversely, it is weak ties that give rise to the linguistic uniformity across large territories such as that described by Chambers in Canada, Labov in the United States, and Trudgill et al. (2000) in New Zealand. The social dynamics underlying both diversity and uniformity lie at the core of an accountable theory of language variation and change.

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Domains


The community of practice (CofP) describes an analytical domain, and its use invokes certain principles for, or assumptions about, the proper analysis of variation. The goals associated with the CofP framework require a serious investigation of both the social and the linguistic aspects of sociolinguistics. This chapter will describe the domain, explain its use in terms of its basic associated principles, and show how it has been used to satisfy those goals.

The CofP domain is rather smaller than that usually circumscribed by the term “speech community” (though see Santa Ana and Parodi 1998); crucially, a CofP is defined in terms of the members’ subjective experience of the boundaries between their community and other communities. Especially important are the range of activities that members participate in and that contribute to the construction of these boundaries. Analyses of variation based on the CofP emphasize the role of language use and linguistic variation as pre-eminently social practices, and they link the analysis of linguistic variables to speakers’ entire range of social practices. In this way, language is understood as but one vehicle by which speakers construct, maintain, or contest the boundaries of social categories and their membership in or exclusion from those categories. The CofP is not a different way of talking about social categories like the middle class. Social categories will certainly have significance at a very local level but they may also have broader significance, recognized by society at large. By focusing on speakers’ engagement in a matrix of interrelated social practices, the CofP can provide a framework for understanding both the social and the linguistic facets of sociolinguistic variation.
1 Defining the Community of Practice

A concise definition of the CofP is provided by Eckert and McConnell-Ginet (1992a): “A community of practice is an aggregate of people who come together around mutual engagement in an endeavor. . . . practices emerge in the course of this mutual endeavor” (1992a: 464).

A key notion here is practice; it is therefore important to define what is meant by practice. “Practices” are a particular kind of activity “way[s] of doing things . . . grounded in and shared by a community” (Eckert and Wenger 2005: 583).

Wenger (1998) uses the CofP to study the duality of participation and reification. Wenger spells out the three criteria which must be met in order to talk of a CofP. In the spirit of the CofP itself, they are to an extent mutually dependent, inseparable from one another when it comes to their detailed explication. We will first go over the basic criteria and then discuss in more detail some case studies that illustrate their significance.

First, there must be mutual engagement of the members. That is, the members of a CofP need to get together in order to engage in their shared practices. Wenger points out (1998: 77, 85) that mutual engagement may be harmonious or conflictual, so a CofP is not necessarily a group of friends or allies. An example of a CofP based on harmonious engagement might be a group of women from different workplaces who regularly get together on Friday evenings, sharing drinks and giving each other a fresh perspective on issues that may have arisen at their respective workplaces. The routines and practices that this CofP converges on might primarily be positive and constructive. You can imagine that such a CofP would be sustained over time because this mutual engagement is so useful to the members’ emotional and practical needs.

But less harmonious engagement might also hold. Imagine a group of divisional heads (say, department chairs) who regularly meet in order to discuss their organization’s shrinking budget and the allocation of funds in the organization as a whole. This group might be characterized by the continual re-enactment of personal feuds, or repetitions of complaints about undue favoritism of one group over another. The practices that evolve in a situation like this may be unhelpful and simply perpetuate the existing conflicts, but we could still talk of the group as a CofP as it satisfies the requirement for mutual engagement (and, indeed, the next two criteria to be discussed).

Wenger notes that “talking on the phone, exchanging electronic mail, or being connected by radio can be part of what makes mutual engagement possible” (1998: 74), but most work has emphasized the importance of face-to-face interaction as crucial in constituting a CofP. Paolillo (2001) shows how the use of social networks can be applied to analyzing language in online communications, but as yet no one has invoked the CofP as an analytic framework for mediated communication. A key issue here is simultaneity of contact. Online social networks can be both temporally and spatially non-simultaneous, however Wenger’s formulation of a CofP suggests temporal (if not spatial) simultaneity of contact between
members. If, therefore, within a particular online community members interact at the same time (e.g. on a Bulletin Board Service or a chat) and Wenger’s other definitional criteria are satisfied, then it may be reasonable to analyze such a community as a CofP. How useful this framework is for analyzing language variation in online interactions remains to be seen.

The second criterion for a CofP is that members share some jointly negotiated enterprise. Because the enterprise is negotiated, there is some circularity involved in its identification: members get together for some purpose and this purpose is defined through their pursuit of it. It is the pursuit of this enterprise that creates relationships of mutual accountability among the participants (Wenger 1998: 77–78). It is important that this shared enterprise be reasonably specific and not very general or abstract, a position we will motivate more fully below. Meyerhoff (1999) has argued that however the enterprise is defined (and Wenger (1998: 84) points out that the members of a CofP themselves may not be able to articulate their shared enterprise) it ought to contribute something meaningful to an understanding of the dynamics of the group involved. Sociolinguists who wish to use the notion of CofP in their analyses have to exercise caution and ensure that as researchers they are not attempting to constitute “communities of practice” for which a shared enterprise is explanatorily vacant.

Third, a CofP is characterized by the members’ shared repertoire. These resources (linguistic or otherwise) are the cumulative result of internal negotiations. An analysis can focus on the variables that members of a CofP are actively negotiating as currency in their CofP. Bucholtz’s (1999, 2011) discussion of teenagers does this, but only in the first case does she explicitly position her analysis in terms of CofP. Alternatively, an analysis may focus on the outcome of such negotiations, as, for example, Holmes (2000, 2006) does in discussing differences in the practices that have been established as normative for the repertoire of several different workplace communities of practice.

In short, the CofP is a domain defined by a process of social learning. Lave and Wenger (1991) originally developed the CofP as a means of describing and understanding how professional communities (tailors or insurance company employees) induct and train new members, and perpetuate set routines for accomplishing specific tasks. It has been suggested that because the CofP is so crucially tied up with the notion of learned social behavior it may be inherently better suited to the study of certain groups or certain periods in peoples’ lives than it is for others. As we will see, the CofP framework has frequently and very successfully been employed for the analysis of variation in adolescent groups. Bergvall (1999) wonders whether this represents an intrinsic constraint or limitation on the CofP. She notes that American culture expects adolescents to expend a good deal of time and effort working on their self-image (both through identification with and differentiation from others). She suggests that, because of this, the framework of the CofP might transpose more readily into the analysis of variation among this age cohort than it does for variation among other age groups. The pattern she has observed is probably an accident rather than a genuine limitation on the framework, and an alternative explanation for why the variation found in adolescent
groups seems to be particularly amenable to analysis under the CofP framework is discussed below. (See also Kirkham and Moore, this volume, for an overview of studies of adolescence and language variation.)

The importance of a jointly negotiated enterprise can be illustrated by a case study from Vanuatu (a nation in the southwest Pacific). Meyerhoff (1999) examined the distribution of an apology routine in Bislama in northern Vanuatu, and noted that there was marked variability in terms of who used the apology routine sore “sorry” and for what purpose. Both men and women used it to express regret for a transgression and to say they missed someone, but only women were observed using it to express empathy with another person. Here then we had a clear difference in practice, but Meyerhoff argued against calling women and men separate communities of practice. Although women shared a practice (use of sore to show empathy), the criterion of mutual engagement was satisfied only weakly. But even more problematic was the fact that it was impossible to specify what kind of enterprise all the women who were observed using sore to express empathy might share. The most one could say is that the women observed using it were engaged in an enterprise of constructing an association between being female and being empathetic. But this would fail to elucidate the relationship between language and its users any further than a simple description of the variation does. To claim that women engage in empathetic practices in order to define themselves as members of the category of women might be a faithful description of the way in which language and society are mutually constitutive, but it brings us no closer to explaining and understanding what it actually means to be a woman in this community nor to understanding the social significance of empathy there. Moreover, defining the enterprise in this way would also ignore the fact that the association between empathy and femaleness is partly constructed by men through their avoidance of the use of sore to express empathy.

Since one goal of analyzing variation in the CofP framework is to better understand the social meaning of language, we need to avoid situations where the closest we can get to defining a shared enterprise is to say that speakers are engaged in “constituting a social category.” If the so-called enterprise is specified at such a high level of abstraction we begin to (i) be divorced from the sensitive social goals of the CofP; (ii) lose a good deal of the explanatory power of the CofP; and (iii) be left with something very little different from established notions such as groups (in intergroup theory) or social strata in the speech community. Consequently, the criterion of a shared, negotiated, and fairly specific enterprise is absolutely crucial.

So we have established that the CofP is about an aggregate of individuals negotiating and learning practices that contribute to the satisfaction of a common goal. These fundamental criteria are associated with even more specific characteristics. Wenger (1998: 125–126) suggests that a CofP will be characterized by (among other things):

- the rapid flow of information and propagation of innovation;
- absence of introductory preambles and very quick setup of a problem to be discussed;
substantial overlap in participants’ descriptions of who belongs and mutually defining identities;

- specific tools, representations, and other artifacts, shared stories and inside jokes;
- jargon and shortcuts to communication;
- a shared discourse that reflects a certain perspective on the world.

1.1 Distinguishing the community of practice from other frameworks

The CofP shares a good deal with the notion of social networks in sociolinguistics (e.g. L. Milroy 1987; J. Milroy 1992; also Milroy and Llamas, this volume). Eckert points out (2000: 35) that although variation acquires meaning within dense social networks, the CofP also captures the fact that linguistic variants acquire their meaning beyond dense networks. In addition, members of dense networks and communities of practice are characterized by different degrees of agency: one can be a member of a dense network by chance or circumstance, while membership in a CofP is conscious. Of course, the notion of simplex vs. multiplex ties in a network does introduce the kind of qualitative measures of relationships that are important to defining a CofP. Milroy and Llamas (this volume) discuss networks in great detail.

The CofP differs in more fundamental ways from some pre-existing concepts which have been widely used for analyzing linguistic variation, for example the speech community and intergroup theory (intergroup theory provides part of the theoretical backdrop for Giles’ communicative accommodation theory (e.g. Giles 1973; Gallois et al. 1995) which is perhaps more widely known in sociolinguistics). A sketch of what seem to be the most salient aspects of the CofP setting it apart from the speech community and intergroup theory might focus on the following five features (see also Patrick (2002) and Kerswill, this volume). The outline that follows builds on the discussion in Holmes and Meyerhoff (1999).

1.1.1 Relationship between an individual’s multiplicity of identities

Individuals may belong to or participate in a number of different communities of practice and their memberships are mutually constitutive. The kind of role that they play in a CofP will partly reflect their own personal history and goals, and also the goals of the group that is jointly engaged in those practices.

At different points in time, intergroup theory has postulated different relationships between individuals’ group (or social) and personal identities. Tajfel (1978) saw group and personal identities as being part of a single continuum; the continuum expressed his intuition (similar to the stance within the CofP framework) that it is unlikely that any identity is defined wholly in interpersonal or intergroup terms. Subsequent work has expressed this interdependence in other ways. Giles and Coupland (1991) represent group and personal identities as orthogonal to one another (see also Turner 1999); Tajfel’s basic intuition about the relationship of the
interpersonal and the intergroup is shared, but their fundamental distinctiveness is asserted.

However, a major difference between the CofP and the other constructs lies in how individual style is conceptualized. The CofP framework sees the larger styling of the self as involving the interplay and resolution of an individual’s participation in multiple communities of practice (Eckert and McConnell-Ginet 1999: 189), while intergroup theory does not see membership in a group to be necessarily part of a broader enterprise of self-styling. The classic definition of a speech community says little about the relationship between an individual’s personal and group identities. Labov’s observation that in New York City it may be difficult “to distinguish . . . a casual salesman from a careful pipefitter” (1972: 240) makes some connection between personal, stylistic variation and social or class-based variation, but there is no onus to explain how the dimensions casual–careful and blue collar–white collar are defined by members of the speech community and how these dimensions might become linked in this way.\(^1\)

1.1.2 **Boundaries** Although most of the case studies that follow involve groups in which participation is voluntary, a CofP may not always have members that are actively in control of their membership. For example, the family unit may constitute a CofP (Hazen 2002), yet, while children are young, the possibilities for opting in and out of membership as parent or child are extremely limited.

The way in which boundaries are maintained can also provide a salient basis for discriminating between the constructs. Competitive opposition to others is a feature of intergroup theory (and critical discourse analysis, discussed further in Section 3), but it is not necessarily a constitutive feature of a CofP. There are some clear examples showing that opposition to other groups is not central to the process of constituting a CofP.

Hall (1996) provides an interesting discussion of how Hindi kinship terms are co-opted by the hijra community in Banaras (northeast India) and are used to denote relationships particular to the hijras’ community (hijras are people who were born biologically male but in various ways construct female identities for themselves). For example, it is the practice among the hijras to use Hindi /Betī/ “daughter” to denote a hijra’s disciple. Hijras’ practice of lexical appropriation involves mapping from the domain of Hindi usage to a domain constructed by the hijras. (Besnier 2003) makes similar points about lexical appropriation by fakaleitī in Tonga. Fakaleitī are a traditional transgendered category of individuals; comparable categories are found in much of Polynesia.)

Nonetheless, it is often through practices that stand in opposition to those of other groups that the boundaries of a CofP are revealed most clearly. Bucholtz (2002) examines the way women strive to define themselves as competent members of the hacker community among computer users using evidence from the discourses these women employ as a way of presenting themselves in the virtual world online. Through these practices, the feminist identities they construct for themselves are placed in (sometimes sharp and explicit) contrast to other discourses
of feminism and other feminist identities that the hackers wish to set themselves apart from.

1.1.3 Basis for defining membership in the salient group  The membership and boundaries of a CofP, including whether an individual is a core or peripheral member, are defined on the basis of criteria that are subjectively salient to the members themselves and membership is reciprocally recognized. Membership in a speech community can be defined on externally salient criteria, such as whether or not one lives in a particular region or town. However, it is worth noting that Labov (1972) gave a prominent place to subjective factors too, defining membership in a speech community by shared evaluations of norms.

Experimental exploration of intergroup principles often arbitrarily assigns participants to a group (e.g. Billig and Tajfel 1973) or highlights characteristics of the participants in the hope that subjects will share the experimenters’ intuition about the salience of those characteristics. Some work on intergroup theory attempts to blend participants’ subjective group membership with externally salient criteria (e.g. Noels et al. 1999).

1.1.4 Members’ shared goals  A fundamental difference between the CofP, the speech community and intergroup theory lies in the nature of goals shared by co-members. By definition, participants in a CofP are engaged in the satisfaction of some jointly negotiated enterprise. No such requirement exists for defining members of a speech community or of groups in the framework of intergroup theory.

1.1.5 Power structure  Another difference can be found in the structure of CofP (compared to other frameworks) and the power and hierarchy within it. Unlike the speech community, the CofP framework is inherently interested in issues of power and legitimate membership. The concept of power within the CofP, however, may not necessarily always be understood in terms of a static hierarchy (Davies 2005; Eckert and Wenger 2005). Since negotiation of practices is crucial in the formation of a CofP, there cannot be “a linear stratification with a well-defined top and bottom” (Eckert and Wenger 2005: 582) but rather a constantly evolving structure, where all the practices are continually shared, developed, and negotiated. Thus, even if there is a clear hierarchy in a given CofP, members at the top need to constantly (re)assert their place there. The issue of how power and hierarchy are organized within each CofP (and how this is related to the spread of linguistic change) is one of the questions research sets out to answer when analyzing a CofP.

A decision to use the CofP as the basis for analyzing variation does not mean that it is inevitably to be preferred over other frameworks. Eckert (2000) makes it clear that its introduction constitutes an addition to the tool chest, not an attempt to throw out the old tools. The value of the CofP lies in the social information that it highlights and which other constructs may, by virtue of the features just discussed, miss. It explicitly focuses on (i) individuals’ social mobility and (ii) the negotiated nature of social identities, thereby elucidating ties between abstract
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social categories and the social groups that people are members of on an everyday basis (Eckert 2000: 40–41). Insightful generalizations involving a social category like gender “are most likely to emerge when gender is examined . . . in interaction with other social variables” (Eckert and McConnell-Ginet 1999: 191).

Since the introduction of the CofP framework into sociolinguistics, several studies in the late 1990s have shown how it can be effectively applied and used in addition to the previously existing tools. It seems, however, that in subsequent years the explicit use of this framework has appeared less often than we may have expected. One of the reasons may lie in the methodological challenges the application of CofP presents. The introduction of CofP has, nonetheless, brought about a reinforced sensitivity to some locally situated constraints, locally constructed groups (and their workings), and a more focused attention on the perspective of the speakers themselves, which can be seen even in the studies that do not directly engage with CofP terminology.

In the next section, we look at how an analysis of variation that integrates social and linguistic practice helps shape a more textured analysis of abstract categories like gender that we might be interested in.

2 The Community of Practice in the Analysis of Variation and Change

Undoubtedly, the most exemplary exponent and user of the CofP in sociolinguistics has been Penelope Eckert. Not only did Eckert co-author (with Sally McConnell-Ginet) the paper that introduced the term “community of practice” to most sociolinguists (Eckert and McConnell-Ginet 1992a, 1992b; see also Eckert and McConnell-Ginet 1999) but in addition she has done more than any one other linguist to show how contextualizing linguistic variation within a larger picture of individuals’ social behavior enriches the overall analysis. What makes Eckert’s body of work particularly valuable is the fact that she so comprehensively satisfies two important goals for any sociolinguist.

First, she demonstrates how analyzing variation within speakers’ communities of practice advances the sociolinguist’s goal of better understanding the social significance of linguistic variation. Eckert shows how linguistic variation fits coherently into the picture of speakers’ broader social patterns. The analysis of variation does not occur independently of the analysis of other social facts, because the sociolinguistic variants themselves do not exist independently of other behavioral variants. An important corollary of this is that linguistic style shifting is neither a function of the attention speakers pay to their speech (cf. Labov 1972), nor of their attention to social characteristics of the addressee or audience (Bell 1984; Gallois et al. 1995). Instead, linguistic style is part and parcel of speakers’ work to construct a social identity (or identities) that is meaningful to themselves and to others.

The second task that Eckert tackles is answering the question of how best to understand the relation between variation at the level of the individual and
variation across large and heterogeneous groups. Her work on variation neatly illustrates how macro-level categories like social class emerge, are sometimes contested, and sometimes maintained, through the actions of individuals. Variation “has to do with concrete places, people, styles, and issues. At the same time, these concrete local things are what constitute broad cultural categories such as gender, class, ethnicity, region” (Eckert 2000: 4). The meanings associated with variants at the most local level do not, Eckert points out, emerge “with no relation to larger social patterns” (2000: 24).

One hazard of focusing on practices in highly local groups like communities of practice is that it potentially leads to positions of extreme relativism, as Dubois and Horvath (1999) suggest, generating results that cannot be used for further generalization. However, by grounding the use of the CofP in the broader goals of sociolinguistics, Eckert shows that the CofP framework is not necessarily a Trojan Horse for extreme relativism.

Eckert conducted her research in four high schools in the suburbs of Detroit. Because she wanted to avoid being caught up in the institution of school and the power hierarchies associated with being an adult in the adolescent world of high school, she chose not to go into classrooms and not to use teachers as intermediaries in her research. (Recognizing that this left her out of a lot of the important social practices in which kids participate, Eckert has negotiated ways to observe students in class as well as out in her current research in California; see Eckert 1996; Eckert and McConnell-Ginet 1999.)

Instead, she wandered the corridors and the courtyards of the school, watching who talked to whom, who wore what and who avoided or congregated in different spaces. In other words, she observed patterns of mutual engagement and shared repertoires and practices (both verbal and non-verbal). Gradually, she got to know the students and started out by asking them if they would agree to chat about themselves and who their friends were while she tape-recorded the conversation. The taped conversations were supplemented by observations and note-taking about practices as diverse as what kinds of jeans the students wore, how they carried their cigarettes (if they smoked), whether they walked across or around the school’s central courtyard and what other school activities (academic, athletic, social) they participated in. With some of the students she had further follow-up conversations, so the amount of speech and, to a large extent, the topics covered were not controlled by Eckert.

In some other studies of variation an attempt is made to control the topics covered; researchers usually believe this will enable them to isolate the effects of specific, objectively identified social variables. That is, they hope that by controlling variation in the topics that speakers discuss, they will strengthen any subsequent claims about the effects attributable to differences in, for example, speakers’ class or sex. Controlling content and amount of speech is not a concern for the analyst working with communities of practice. The CofP is not intended to be treated as an independent variable, like class or ethnicity. Rather, by studying the ways in which the students participated in a variety of social practices, the communities of practice that Eckert identified ultimately help to shed light on the
meaning of more objectively identifiable social categories like class and gender. In this way, she shows that the use of communities of practice in the analysis of variation and change is not “to dispense with global categories, but to attach them to personal and community experience in such a way that the structure of variation makes everyday sense” (Eckert 2000: 222).

In one respect, what Eckert is saying here is that this approach to data collection and analysis is a constructive response to the feeling that the way social dialectologists often divide up a “speech community” masks salient aspects of individual variation. Horvath (1985), for example, reanalyzed some of Labov’s (1972) data from the New York City survey and showed that generalizations about style based on speaker sex masked some men’s adherence to more standard-like norms. She noted that this meant that some salient information about the social factors defining the notion of a “standard” was missed.

In the course of her investigations (interviews with 200 students, eventually culled to 69 for detailed analysis) Eckert found, for instance, that in the Detroit suburbs, adolescents formed three major groups while in high school: “jocks,” who identified with school values and participated most actively in the activities sponsored by the high school; and “burnouts,” whose most significant social ties and aspirations were often shared with the urban and more working-class culture of Detroit city, and who chose not to participate in the activities that generally measure success in school. Finally, there were a large number of students who defined themselves negatively in terms of these polarized groups. The so-called “in-betweens” participated to a greater or lesser extent in the school-based activities associated with the jocks, and the external activities associated with burnouts. The heart of Eckert (2000) lies in elucidating the complex relationship between individuals’ participation in practices associated with these groups – their shared repertoire of social practices defining them as more or less prototypical or core members of those groups – and their linguistic practices. The links she establishes shed light on the process by which other, larger social categories such as gender are understood and maintained or contested.

The high schools Eckert studied were located in an area in which a major vowel shift is taking place (the Northern Cities Chain Shift (NCCS); see Gordon, this volume). She examined both the relative frequency with which the teenagers she interviewed used innovative and conservative variants of the vowels undergoing the shift, and also the same teenagers’ participation in practices that serve as other indices of social innovation or conservatism. By employing this bifurcated approach, Eckert could show that the high school students who used the most innovative forms of newer variables in the vowel shift (backing of the vowels in cut and bet and raising of the nucleus in bite) were also the speakers who participated in other social practices that positioned them beyond the pale of conservative norms of the school (and sometimes the wider community too). These were, in many cases, the so-called “burned out burnout” girls, that is, girls who were identified as extreme exemplars of the social category of burnouts. Eckert found that their linguistic flamboyance (i.e. their more frequent use of innovative variants of the newer variables) was accompanied by other flamboyant displays. In
addition to the way they talked, their makeup, clothes, and ways of finding fun outside of school also indicated their distance from, or rejection of, conservative norms. In other words, having a cutting-edge personal style was linked to being the kind of person who defines and leads in the diffusion of linguistic innovations.

Similarly, Eckert (1996) discusses the social significance of emphatic, low, back tokens of short a before nasals. Use of this variant before nasals sets Latina girls in northern California apart from the non-Latino tendency to raise short a in this environment. But Eckert noted that the girl who produced the most extreme forms of this variant also tended to engage in other behaviors which established her as a leader in other domains, particularly as being savvy and forward with boys. In this case, you could say that the shared enterprise of the CofP lies in defining the social roles of trend-setter, follower, or those who opt out and the hierarchy attendant on that social structure.

Of course, these indicators are not equally salient or meaningful to all observers. But within the larger CofP of the Detroit high school or the California elementary school their significance was clear. There, both the fact that some speakers actively participate in even the incipient changes of a vowel shift, and that others choose not to participate in the shifts until they have acquired significance in the community/ies outside the school, are understood as part of a more general pattern of participation in practices that confer status or prestige in the school or the society in which the school is located.

Use of the CofP framework allows this nexus to be highlighted. It also enables us to focus on the way an innovation is coined, crystallized, and begins to spread because it focuses on the negotiation of meaning based on individual praxis.

In the same spirit, Mendoza-Denton (2008) and Bucholtz (1999) have found the CofP framework useful for studying how linguistic variation relates to other practices in which adolescents participate, shaping their personal and group identity in school and beyond. Mendoza-Denton showed that the extent to which speakers participate in vowel shifts taking place in California is but one way of demonstrating their social position in wider social networks. Selection of linguistic variants correlates with speakers’ dress and fashion sensibilities and their decision to be involved in different local gangs.

Bucholtz (1999) shows how a small group of determinedly uncool girls differentiate themselves from the other kids in their high school through a range of social practices. These girls fail to participate quite so actively in the ongoing California vowel shifts (especially fronting of the vowels in *boot* and *boat*). This sets them off from cool students, who use fronted variants much more frequently, and the girls she studied bolstered their distance from whatever defines coolness by developing a repertoire of other practices that cool students seldom participate in, for example demonstrating a taste for reading and verbal play.

Although the CofP may seem to apply most productively to the analysis of variation among adolescents (we noted earlier Bergvall’s (1999) suggestion that this related to the importance of developing self-image for this group), there is no inherent reason why its usefulness should be limited to this age group. It may
prove to be true, as Eckert and McConnell-Ginet suggest (1999: 189), that some of the communities of practice we belong to in our youth have especially strong and perseverative effects on our verbal styling, but the business of constructing a social identity for ourselves hardly finishes after adolescence. Throughout adulthood, we continue to participate in a variety of communities of practice (both as expert, core members and peripheral, neophyte members). These present the possibility of strengthening existing identifications and redefining ourselves with new ones as Wenger’s (1998) and Holmes’ (2000, 2006) workplace studies so clearly demonstrate.

A major benefit of the recent interest in the notion of the CoP is that it restores an emphasis on relating large-scale, quantitative analyses to the micro-level practices of the groups of speakers being studied, very much in the spirit of Labov’s analysis of variation on Martha’s Vineyard (1972). Dubois and Horvath’s (1998, 1999) discussion of language variation among Louisiana Cajuns is particularly compelling because of the way they approach this synthesis. They link speakers’ use of variants of the (th) and (dh) variables and voiceless stops with their participation in other social practices. Users of variants that are strongly indexed as Cajun also engage in other practices marked as Cajun, such as learning and playing Cajun music, or maintaining a household where tasks and roles are divided along traditional Cajun lines (Dubois and Horvath 1999).

Their work also reminds us that practices pursued within a CoP may be reinforced by external factors such as others’ expectations. They point out that being identified as “Cajun” in Louisiana sometimes translates into important economic opportunities in an otherwise depressed region. So using variants that are strong markers of Cajun-ness and playing Cajun music help define a speaker as authentically Cajun, but ironically the significance of these practices as ingroup markers has been ratcheted up by external factors such as the rewards of catering to tourists’ expectations or demands (Dubois and Horvath 1998).

To date, the CoP as a domain of analysis has been adopted most wholeheartedly by researchers working on language and gender. We think there are a number of reasons for the apparent specialization of the CoP in language and gender studies. As is often the case, the reasons have perhaps as much to do with the history of the science as the philosophical underpinnings of the theory. Historically, the CoP was first introduced to sociolinguists in the context of language and gender research (Eckert and McConnell-Ginet 1992a, 1992b). Presented to this audience, the CoP gained a sympathetic ear; the CoP was attractive to gender researchers because it provides a useful framework for exploring gender as a learned (and consequently, mutable) social category, rather than a categorial primitive. This perspective is enticing for gender theorists for several reasons. First, it immediately foregrounds the likelihood of there being considerable differences in how the notion of “being a woman” or “being a man” is constructed among any aggregate of individuals. Second, it makes clear the possibility or even inevitability of these notions being constructed differently across a person’s life span, through participation in different practices. Third, cross-cultural variability in what constitutes gendered practices is also highlighted.
In that vein, Ana Cristina Ostermann’s work (2003) shows how the CofP framework can be helpful in analyzing intragender variation (that is, not the differences between the two genders, but within the same gender). She looks at the discourse in two all-female institutions in Brazil that assist women who have experienced domestic violence: a police station and a feminist NGO. Ostermann analyzes the interactional patterns in the two institutions, focusing on different types of responses to the victims’ turns of talk. She shows that there are not only quantitative differences between the types of responses used by employees in the two institutions but that the interactional meaning of these responses is also different. For example, silence as a response is used very rarely by the women in the feminist NGO, while it is one of the two most common types of response at the police station. But more interestingly, the use of silence conveys different meanings, as Ostermann argues, when used by the feminists and when used by the police officers. In the interactions at the police station, silence was used as a way of asserting control and of leaving “the communicational burden of the continuation of the interaction” (Ostermann 2003: 486) to the victim. In the feminist NGO, on the other hand, silence was used as a way of challenging the victims to reflect on the situation and as an invitation to further elaborate on the topic. Thus the same kind of response (silence) was used to achieve very different interactional goals, depending on the CofP.

Ostermann also argues that we need to take into consideration the different histories of the members of each CofP in order to better understand and contextualize their practices. This resonates with other discussions of CofP (e.g. Meyerhoff 2005), and reminds us that a CofP is a “collection of identities” (Eckert and Wenger 2005: 584) and as such it is tied to the histories and biographies of its members.

In theory, there is no reason why these advantages should not be as attractive to researchers on the linguistic construction of age and aging, or ethnicity, as they are to those interested in the construction of gender, but, in fact, less research has focused on these constructs within the CofP framework (though some studies investigating the linguistic construction of ethnicity were mentioned above; cf. also Foster 1995). Of course, since a tenet of the CofP approach is that categories like “Japanese,” “woman,” or “grandparent” cannot be handled atomistically, even a study focusing principally on gendered practices inevitably tells you something about what it might mean to be, for example, a Hispanic teenage mother with former gang affiliations.

Again, it is perhaps a historical accident that relatively little work within the CofP framework has studied the social construction of age and how this relates to agism. There is a vigorous and extremely productive program among social psychologists examining these topics but the focus of these studies is rather different to the focus you would expect to find if communities of practice were taken as the starting point for analysis. The social psychology research has focused on how people talk to the elderly, and how they interpret the utterances of older speakers (or apparently older speakers, in the case of matched-guise experiments). A number of studies (e.g. Ryan, Hummert, and Boich 1995; Giles et al. 1994;
Harwood and Giles (1996; Harwood 2000) have examined patronizing modes of talk directed at elders, younger people’s interpretations of such patronizing talk, and younger people’s attitudes towards talk produced by elders. This research strongly suggests that what these patronizing speech patterns do is construct an identity for the elderly that associates age with qualities such as confusion, incompetence, enfeeblement, and asexuality.

In other words, this research takes the reverse perspective of the CofP. Instead of foregrounding speaker agency and the relationship between the social construction of self and speech (and other) behaviors, this research scrutinizes on how others construct identities for us.

Ehrlich (1999) looks at how the communicative practices, or shared repertoire, which members of a sexual harassment tribunal engage in, manage to compete with the way two female university students represent experiences in which they were the victims of date rape. The tribunal members’ discursive practices constructed an alternative view of the women’s roles. Because the tribunal members shared certain assumptions (cf. Wenger’s characteristic features of a CofP, above) about what constitutes reasonable behavior under the circumstances of the complaints, and because the tribunal members shared questioning practices that reified these assumptions, they managed to effectively recast the salient identity of the women complainants as architects of their own misfortune, not as victims of fear and assault.

Up to this point, we have principally focused on how the CofP informs the analysis of variation. We turn briefly now to discuss its usefulness in the longitudinal analysis of language change.

As has already been intimated, Eckert (2000) provides perhaps the clearest exposition of how the CofP framework can inform the study of language change. She proposes that synchronic, individual variation is transformed, or mapped, into community-wide, diachronic processes of change. Eckert hypothesizes that as the fact that these linguistic variables have social significance crystallizes, they become available to be transformed into indices of categories that are salient in the wider communities affected by the NCCS. So, for example, because use of backed variants of the vowel in bet comes to be associated with burnouts in the high school CofP, and because the jocks’ reaction to this is to begin to use lowered variants of the bet vowel (Eckert 2000: 120–121), the variable becomes marked as one whose variants are socially salient. Ultimately, as this significance becomes more widely recognized, or as the high school students mature and disperse into other communities of practice as adults, the variants may map onto social categories that are more salient in the larger speech community, such as regional origin, class, or ethnicity. This is how Eckert shows that the description of micro-level stylistic innovations is essential for an understanding of the macro-level phenomena of linguistic change.

Riley (1996), too, looks at language change, and her analysis is sympathetic with the CofP. She outlines a situation of language simplification and incipient language loss in the Marquesas (southeast Pacific). Her work there shows that shifts in social practices are having an effect on the linguistic landscape. Marquesan
is increasingly being marginalized as a language of the home, instead acquiring status as a men’s argot.³ Riley reports that women are using Marquesan in an increasingly restricted set of interactional domains. More and more, they use French, which they see as giving their children a head start in future competition for socially and economically rewarding occupations. Younger girls are also actively contributing to the shift towards French, because they tend to be oriented more towards school (which is conducted in French) than boys are (though the outcome is a somewhat creolized form of the language. See Sankoff, this volume, for more on creolization and language change). Boys, on the other hand, continue to have to participate in some of the practices and routines that traditionally defined a masculine identity, and these activities also give them greater exposure to Marquesan. Since the language continues to be used more generally as a means of communication by men, and because it has also acquired an association with gendered exclusion, this means that girls and boys have quite different competency in Marquesan. This, in turn, has social effects. Most older members of the community have limited or no French. With girls choosing to target French and being excluded from practices that foster competency in Marquesan, this means that girls’ interactions with older members of the community are increasingly problematic and subject to miscommunication.

3 The Community of Practice in Broader Perspective

In the previous sections, we canvassed some aspects of the speech community, social network, and intergroup theories to which the CofP stands as an alternative. In this final section, we attempt to place the CofP in a somewhat broader perspective, showing how the concerns and research questions of the CofP are a link in a much longer chain of humanist theory and discourse. We hope that by explaining the origins and current uses of the CofP we can also indicate the potential that the construct might have for the future.

Similarities with a number of theories and methodologies in the social sciences are immediately apparent. Clearly, the CofP approach is much influenced by the methods and sensibilities of (linguistic) anthropology. In addition, the centrality it places on the notion of shared experience and negotiated social meaning shares a good deal with theories of language in some other fields, for example, some of the theories of intercultural communication such as Cronen’s Co-ordinated Management of Meaning (Cronen, Chen, and Pearce 1988) or Gudykunst’s (1995) Uncertainty Reduction Theory. Latour and Woolgar (1979) also emphasize the manner in which meaning is derived through practices, with the provocative addendum that inanimate objects centrally involved in social practices might also be considered participants. But the CofP has even deeper roots in the history of the humanities.

In some respects, the emphasis on analyzing language within a very local, practice-based framework as an alternative to large-scale, quantitative studies of
the speech community is the daughter of a tension between positivism and relativism that goes back to at least the seventeenth century. Berlin (1997a) discusses a number of features of the Counter-Enlightenment movement that took hold in Europe in the late seventeenth and early eighteenth centuries. There are some remarkable similarities between the discourse emerging out of the tension between the Enlightenment and Counter-Enlightenment philosophers and some of the discussion born of the tension between the more positivist (quantitative) approaches to sociolinguistics and the more relativistic (qualitative) approaches. Tensions between the Enlightenment ideal of establishing an objective and universal means of expressing human experience and the Counter-Enlightenment’s rejection of this as a goal – its emphasis instead on the situated and particular nature of human behavior – seem similar to discussions among sociolinguists about what kind of information is forfeited by different approaches to the study of variation. The challenge for sociolinguistics is the one that the Counter-Enlightenment movement chose not to accept: how to specify the manner in which the particular becomes or relates to the general or universal. As Eckert and Dubois and Horvath have shown, we can begin to meet the task if we employ a sufficiently catholic approach.

Berlin credits the Italian philosopher Giambattista Vico (1688–1744) with having been the first to seriously explore these differences, and it was Vico too who appears to have first perceived the long-term significance of them. Vico held that knowledge of what happened, to what, and in what order, may constitute a sufficient and necessary method for understanding the natural sciences, but he claimed that when you come to try to understand things that relate to humans, individuals, and societies, such disembodied knowledge is no longer sufficient. Vico argued that in order to understand events that occur at the human level, the researcher must foster a degree of empathy with the subject of her or his investigation. This methodological distinction may have been original to Vico, and Vico’s observation of this distinction may date the start of separate empirical paths of development for the sciences and the humanities (Berlin 1997b: 357). Vico clearly saw the study of language as falling into the latter category, which he called New Science. “Language . . . [is a form] of self-expression, of wishing to convey what one is and strives for,” according to Vico (Berlin 1997a: 246–247). Consequently, no matter how superficially similar cultures might appear, or how similar groups’ practices within a culture might appear, Vico believed that cross-comparison was not possible.

Each culture or set of practices was the unique product of the unique circumstances in which it arose. In order to understand a culture or a set of practices, Vico believed that it was first and foremost necessary to gain a full understanding of the historical and contemporary setting in which the object of study played itself out. One might say, it is necessary to gain a full understanding of the community in which any given practice acquires meaning.

So by way of conclusion, let us suggest that the CofP, as an attempt to inform the general through the study of the particular, is not only an attempt to theorize the social as fully as the linguistic; it is also an attempt to achieve something more
fundamental and more ambitious. To the extent that it successfully provides a model for satisfying all goals for the study of variation and change, it offers the hope of successfully bridging a rift between Western scientific approaches that, arguably, has yawned for several hundred years.

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NOTES

1 Santa Ana and Parodi’s (1998) notion of nested speech communities attempts to marry speakers’ multiplicity of identities with the basic notion of the speech community, thereby bringing the intent (if not the terminology) of speech community theory and the praxis-based theory of the CofP closer together (see Patrick 2002).

2 The possibility or even likelihood of such change across the life span presents a potential challenge to the notion of studying change through the apparent-time construct. However, the validity of the apparent-time construct for some variables does not mean all variables are necessarily amenable to this form of analysis (see Bailey and Cukor-Avila, this volume).

3 Riley’s work is reminiscent of Nichols’ (1983) on women’s shift away from Gullah and toward English on a Georgia island community and Gal’s (1979) on the community-wide shift from Hungarian to German in an Austrian village.

4 A major implication of Vico’s position for linguists is that he rejected entirely the notion that one could describe the world in some purely logical form – language for Vico was quintessentially a product of the users and their environment (Berlin 1997a: 248). Gottfried Herder made similar arguments. Like Vico, Herder stressed that in order to truly understand something we have to understand the basis of its uniqueness and singularity. To do so requires a degree of empathy (or Einfühlung) that is generally excluded or marginalized from positivist modes of inquiry (Berlin 1997a: 253).

REFERENCES


Communities of Practice


21 Constructing Identity

SCOTT F. KIESLING

From the earliest times of the variationist project, identity has played a central, if often controversial, role. The study normally considered to be the foundational study of the field – “The social motivation of a sound change” (Labov 1963, 1972: 1–42) – is in fact about the identity motivation for a sound change: Labov shows that the patterns on Martha’s Vineyard are not directly attributable to simply being on the island, or being born there, or even being raised there. Rather, the inhabitants of Martha’s Vineyard who showed the most use of the local variants were those who identified with the island either through practices such as fishing or through simply having a positive feel towards it. The study was foundational because it demonstrated that a model of language change that relied simply on imperfect generational transmission was insufficient as an explanation. Rather, Labov showed empirically that islanders were making choices about how to speak based on who they wanted to be, and that these choices were changing the variety.

Labov’s next project, in New York City (Labov 1966), was much larger, but again identities were crucial. Labov showed that the identity categories of class, gender, age, and race were all important in predicting the distribution of variation and direction of change in New York. Granted, the scale of the New York City study was quite different. And whereas the concept of “New York City identity” was evoked (e.g. in the case of Steve K., an individual who had returned to his geographic and linguistic “roots” after attempting a university education; Labov 1972: 70–109), other concepts such as prestige and insecurity entered into the explanation for these patterns, raising the question of just how central identities are for the explanation of variation. Nevertheless, identity in some form has been important for variation studies ever since; in virtually any study that addresses social factors it plays a role, depending on how identity is conceived. The puzzle for
variation theory and research practice is to understand how to define it, both theoretically and operationally, and to show that it is a useful concept for explaining why variation patterns as it does.

In what follows, then, I discuss the current state of how identity is conceived in variation, and what effects different conceptualizations of identity – and indeed different types of identity – have on variation and change. The goal of a theory of language variation is to provide explanations for why languages and varieties are spoken the way they are: why they change, how they change, and how they pattern within particular communities. Accordingly, I review the extent to which a general term, “identity,” can contribute to that theoretical goal. I begin at the beginning: What exactly is (an) identity?

1 Identity Constructed

The title of this chapter implies that identities are not some innate organic predispositions of persons but that individuals somehow must create or construct them. This conclusion represents the later stages of an arc of social thought in the previous century, a path that began with identity being understood to be composed of the essentialized traits of people of certain kinds (especially those with less power, such as women and dark-skinned people in European societies). Although the academic pendulum has swung far away from this view towards one in which traits are seen as only loosely tied to individuals and groups, and can be donned and doffed as easily as one can change the cut of one’s jeans, identity in most theories is more complex than either of these extreme views. The former view is clearly too essentializing in believing that traits (like language) are innately part of a person’s physical makeup (in fact, language is a primary argument against this view, given that the local language is learned perfectly no matter what a person’s genetic makeup). On the other hand, the latter seems not to be true either, since we do find clear patterns of identity practices that persist for individuals; that is, there is some stability to identities that resists the totally detached “postmodern” view.

The perspective of this chapter is that identities are not just constructed but in fact are continually renewed, and that individuals desire to continually renew these identities, so that they appear stable. On the other hand, if someone wishes to change their identity, they can; it is just not done very often, and it is not easy (unless one takes the perspective that people have different identities depending on what they are doing and whom they are talking to, and even what they are talking about, among other things). Moreover, this construction is not a one-way process but something that is negotiated in interaction and over time; one cannot simply construct any identity at any time because there are restrictions on how identities can be recognized and interpreted by others. In many ways, then, identity is like language in its occupation of space between the individual and the social, and identity represents a negotiation of the intersubjective meanings of social practices.
Identity is a term that can be defined in many ways. Experimental psychological studies conceive of this term differently from disciplines such as cultural studies and literary studies, and these are different even from those in the social sciences such as anthropology and sociology. Sociolinguistics has in general conceived of identity in social-scientific terms but has had influences from literary criticism and psychology. For the purposes of this chapter, however, I will suggest a definition of identity that is fairly generic: Identity is a state or process of relationship between self and other; identity is how individuals define, create, or think of themselves in terms of their relationships with other individuals and groups, whether these others are real or imagined. Such a definition is rather sweeping, but it provides a foundation for investigating how language and identity are related by moving the focus from static individuals to the process of how speakers use language to create relationships. This definition also captures the dual individual and social nature of identity, because it is about how the individual relates to society, whether on a group or individual level. As Bucholtz and Hall (2004: 493–494) argue in an influential article, identity construction is a process of negotiating intersubjectivity between the individual and some other(s): “On the one hand, the subject [individual] is the agent, the performer of social processes; on the other, the subject is the patient, subject to social processes. ‘Intersubjectivity’ emphasizes that identification is inherently relational, not a property of isolated individuals.” It also emphasizes that the categories that form identities are not freely created by individuals but are embedded in a cultural and ideological matrix which they alone do not control.

The definition of identity given above entails that, in order to understand identity, two other more basic concepts must be understood: the nature of relationships and the ways that language indicates, constructs, and responds to those relationships. I turn to the former first.

1.1 Relationships

The most obvious way that identity relationship can be conceived of is in terms of similarity or difference; indeed, identity derives from the Latin idem, referring to “the same.” So indicating similarity or sameness is one of the primary relationships in identity. Of course, if identity is about being similar to some people, relationships of difference are also implicated, since by choosing to be similar or to signal similarity, speakers are simultaneously deciding they are different from someone else. Similarity and difference then, are the basic building blocks of identity. Bucholtz and Hall (2004) refer to these poles as adequation and distinction, respectively.

But there are also some other kinds of relationships that can be separated from similarity and difference. Most prominent are relationships of affinity, attraction, or desire. I will use the term desire as a cover for all of these for now. At first these desire relationships might seem to be aspects of similarity, and in some cases they are. However, sometimes “opposites attract,” as the English aphorism puts it. While perhaps not always veridical, this slogan does suggest that similarity and
desire are separable. In fact, desire has been defined as the wish for something that is lacking (Cameron and Kulick 2003), especially for a person or type of person. Moreover, desire need not be a sexual desire, but can be other forms of closeness (Kiesling 2011). Solidarity is a concept related to desire, but is really one way of expressing similarity. Solidarity is another way of showing a shared interest or affiliation with another person; thus it is not desire for that person but this shared trait, group membership, interest, belief, and so on. These can also be understood as relationships of symmetry (and indeed are often indicated by similarity in linguistic use; see Brown and Gilman 1960). Solidarity has been an important concept in many variationist studies, in large part operationalized through social networks (Milroy 1980; Milroy and Llamas, this volume) and communicative accommodation theory (Giles, Coupland, and Coupland 1991; Auer and Hinskens 2005; Preston, this volume; Milroy and Llamas, this volume).

There is a separate axis of relationships for identities in terms of hierarchy, power, status, and stratification. These are not all exactly the same, but they are all relationships that have to do with inequality and asymmetry. Hierarchical relationships require a connection to an understood social ideology or institution (or both) that orders people in some way (an obvious example is rank in the military). Power, while it may be invested in hierarchical relationships, can also be derived from asymmetrical resources, including asymmetrical access to particular kinds of language. Power is most often not direct but symbolic, and language can be one symbolic resource for creating a powerful identity. Status and stratification in general have more to say about how groups of people (as opposed to individuals) are related to one another; some groups have higher status in a system of stratification. Most often this is applied to socioeconomic class, but it is also implied in many, if not most, systems of gender, race, and ethnicity.

Tannen (1993) points out in her discussion of the relationship of power and solidarity that these are separable relationships. Two people or groups can have power differences but be very solidary (such as parents and children), or distant (most corporate employer–employee relationships in the US, for example). Likewise, it is possible for people to have relatively equal relationships that are distant (students who do not know each other) or solidary (students who are good friends or even siblings). At the same time, though, Tannen notes that in our most intimate relationships, power and solidarity are often inextricably intertwined, for example in close family relationships such as parent-child or romantic relationships, in which one party’s exercising power over the other (e.g. by making decisions, or by assuming the role of “protector”) may be intended and viewed as expressions of closeness and caring.

In sum, identities are given value through their relationships with other identities:

• similarity vs. difference
• affinity, attraction, or desire
• solidarity
• hierarchy, power, status, and stratification.
This view of relationships is still quite abstract. These general kinds of relationships are realized and acted out in more specific ways, whether, for example, as a gender identity, identities of teacher and student, or “being friendly” in a conversation. It is on these more specified kinds of relationships that sociolinguistic studies have usually focused. So further questions about these more specific identities need to be asked: Where do these relationships come from? On what axes are they constructed? The answers to these questions frame the next section of the chapter.

1.2 Domains and levels of identification

Identity relationships are always embedded in some kind of relevant social context, and this context varies on a number of important dimensions, but mainly by scale and community. In other words, as the scale changes from that of a conversation to an entire nation, so do the relevant identities. In addition, the scale may stay constant but the community may change: my relevant identity at the University is different from that while at home with family, or even at an academic conference. (Here I am using community in a very general sense that includes any group of people with some common denominator such as geography, practice, network, or even conversation; see Milroy and Llamas, Meyerhoff and Strycharz, this volume, for more on “community.”)

In terms of scale, it is useful as a heuristic to think of identities on at least three levels: (i) large “census” groups; (ii) institutional roles; and (iii) stances or positions in interaction. Census groups are those groups that have been traditionally used in variation studies; I use the term census group because such groups are typically the focus of questions on censuses: socioeconomic class (Ash, this volume), sex or gender (Queen, this volume; Eckert and McConnell-Ginet 2003: 266–304), age (see the chapters in Part IV of this volume), and race or ethnicity (Fought, this volume; Fought 2006). Variation studies have found robust patterns of correlation with linguistic difference along all of these census identity dimensions. On the other hand, it is not clear from many of these studies that the correlations found are created because speakers are specifically identifying with these groups or in opposition to another group, although those are possible explanations. Such studies merely find that one group of people uses a variant more often than another. It could be that people tend to talk to people like themselves and accommodate to those people (Milroy and Llamas, this volume), although this explanation is more difficult to maintain in the case of gender, since clearly there is more cross-gender communication than cross-class or cross-ethnic (e.g. Eckert 1989: 253–254). For example, in terms of constructing identity, it is not clear that a working-class New Yorker is necessarily using a vocalized /r/ in order to express identity as a working-class New Yorker without other evidence beyond correlations between census categories and variable use. Such evidence might comprise, for example, use of the variant in stylistic variation (e.g. Schilling, this volume) or indications of “identity” meanings in listeners’ reactions to (including evaluations of) the variant in question (e.g. Preston, this volume). The determination of whether correlations between linguistic features and group usages indicate identity meanings will be elaborated upon below.
“Place” is another kind of identity that can be considered as a large-scale notion. Clearly, ways of speaking are associated with people of particular places, and as with other kinds of identity, these ways of speaking have in the past been seen as essential traits of inhabitants. Of course, place is another axis on which to claim sameness or difference, and solidarity and hierarchy, and itself is nested in terms of scale (for example, someone can be identified with a nation, within that a region or city, and within that a town or neighborhood – so someone can be from the neighborhood of Lawrenceville, the city of Pittsburgh, the region of Western Pennsylvania, and the nation of the United States all at once). In general, place is used to create identities pertaining to difference from and sameness to what is considered to be local; and those who are seen as the most local – often those people have been raised in a particular location or lived in a single neighborhood or village their entire lives – may be seen as (or claim to be) more authentically local.

For example, Daleszynska (2011) shows that residents of the three villages she studied on the island of Bequia in the Caribbean have different relationships to the island and different ways of thinking of themselves as authentic Bequians. These orientations to place have consequences for variation patterns: Local histories and relationships to the wider world (and especially the tourist trade) produce different valorized identities in each village, and consequently different ways of using language in order to connect with those valued identities. Daleszynska’s study demonstrates that even something that seems fairly straightforward as how place leads to identities and variation depends on how speakers construct other relationships, and thus “place identities” are just as constructed as other identities.

Another level of identity is that of institutional and professional roles, which provide a wide range of scale, from roles in smaller communities such as that of “mother” in the family, to larger ones such as a political officeholder or even professional roles such as plumber, professor, lawyer, or bus driver. Depending on the context of speech event and community, speakers may foreground or back-ground these role identities to a greater or lesser extent. Finally, there are relatively fleeting stances taken up by speakers in interactions (stance is similar to footings, positionings, and a host of other terms; Jaffe 2009; Kiesling 2009; Goffman 1981; van Langenhove and Harré 1999). Examples include being friendly, confrontational, authoritative, and weak. These are not often seen as identities, because identities are typically seen as more perduring than such moment-to-moment conversational moves. But given the definition of identity presented above, these should be considered identities because they are relationships taken up by individuals with respect to other people; in some ways they are the most basic kinds of relationships we can create with people.

All the concepts discussed in this section are ways of creating relationships and therefore identities. One question for identity research is how these identity scales fit together (assuming each is in its own way valid). That is, how does what speakers do in interaction lead to the census group patterns found across speakers of similar census identities? Conversely, how do our associations of particular patterns with census groups feed back into interaction? Bailey (2002) provides a particularly good example of the contextual dependencies of identity, based on
his ethnographic study of Dominican-American teenagers in Providence, Rhode Island, USA. Dominican Americans are Spanish-speaking but in the US racial logic appear to be African American. Bailey shows at first how the Dominicans use both Spanish and African American Vernacular English (AAVE) to align themselves sometimes with their Dominican identity and sometimes with their African-American one, and sometimes with both at the same time. However, Bailey also shows that within the Dominican community, one can speak “too much Spanish” and be labeled a “hick.” So, within the Dominican community, there is a further division of identity and language related to status and how “un-Dominican” one is. There is even a further dimension oriented to by some speakers in Bailey’s study: that of a “bootleg” – someone who is in the Providence Dominican community but was born and raised in the US. Such “bootlegs” are thus seen as less “authentic” than “true” first-generation migrants. Bailey’s work shows how identities can be nested, and oriented to differently depending on the community in question, and especially who speakers are talking to and why.

With three different levels of organizing identity, it becomes clear that identities are quite complex. Even at the census group level, someone will simultaneously have relationships of sex/gender, socioeconomic class, and race/ethnicity, among others. So, even if sociolinguists find some kinds of correlations with any of these categories in a particular study, these categories need to be shown to be oriented to by the speakers or the community in some way (not necessarily directly), and on some level they must be recognizable to members of the community. Butler (1990) argues that categories and identities are performative in the sense that an identity construction must be felicitous in the way a speech act (Austin 1959; Searle 1970) must be – that is, it must “go through” and “count as” constructing that identity. This concern about recognizability brings up the question of who decides which identities are relevant and even available to be oriented to (and also circles back to the concern at the beginning of the chapter with the tension between the individual and the community in constructing identities).

The question of recognizability leads to important methodological and theoretical issues. Methodologically, the question for variationists is what kinds of identities to attempt to correlate with linguistic variables, and how to code for those identities. With census group identities, the researcher usually chooses to make categories such as gender and class relevant from the beginning of the study, either because these are categories that have often been found to correlate with language variation or because they have been identified as salient in the community. In addition, even if such categories are not overtly salient to community members, they will have some impact, since they are important societal reifications, and people necessarily position themselves with respect to such reifications, even if to position themselves in opposition to the established structural categories. However, it has become clear in more recent studies that variation theory and method should pay close attention not just to wide-scale reifications but to how speakers themselves orient to identity categories and relationships.

This same tension between analytical and speaker identity categories arises theoretically as variationists provide explanations even for the large census group
patterns. It is not always clear whether the cause of sociolinguistic patterns is that speakers are actually orienting to the larger patterns or whether the larger patterns are epiphenomenal, and speakers are really orienting to something else such as their institutional identities, their networks, or stances. Studies have found people orienting to a host of different kinds of identities. Bailey’s (2002) study was noted above, in which he shows the same speakers orienting to different identities at different times. Eckert (2000) shows how speakers orient to identity axes in a Detroit-area high school (which she calls Belten High) that include gender and socioeconomic class but are more specific to the local high school culture. In Pittsburgh, Pennsylvania, Barbara Johnstone and I (Johnstone and Kiesling 2008) found that local identity and speech are oriented to in a number of various ways, including by class, neighborhood, and age. Similarly to Eckert, Mendoza-Denton (2008) shows how different variables in the same community are not always sensitive to the same types of identity. In her study, Latina girls in gangs in California showed more use of some variants depending on how central the girls were to gang culture, while other variables were related to what gang they were in. Similarly, Fought’s (1999, 2003) discussion of Chicano English also shows how important it is to think about how different identities are not only nested but also how they intersect. This intersectionality of identities involves focusing not only on individual axes such as gender and class but on how specific intersections of these identities are qualitatively different and not just additive of their individual qualities. (Intersectionality is important in non-linguistic identity studies and especially feminism – see Davis 2008; Phoenix and Pattynama 2006 – but has not been explicitly articulated in sociolinguistics.) Fought shows that there are complex interactions in use of the fronting of /u/ for gender, class, and gang membership or gang network. Fought argues that the different usage patterns for speakers with different intersectionalities can be accounted for by thinking about how variants of /u/ connect with the value of “toughness” in this community: Gang affiliation is not as important for predicting fronting for men as for women, but Fought argues (1999: 20) that this is because the men are also likely to want to appear tough because it is a masculine trait. So gender and gang status (among others) intersect in complex ways that are not easily predicted from understanding the role of just one factor. Such an intersectional study shows, then, that categories are not always (and probably not even usually) how speakers are orienting to identity, and therefore explanations for the correlational patterns between linguistic usages and such categories need to include more nuanced understanding of exactly how linguistic variation works as a way for speakers to construct identities.

2 How Language Is Used to Construct Identity

Of course, when people think of identity or even theorize it they are not focusing only on language. There are many other ways that people with what might be called the same identity are similar, in dress, or looks, or other habits. In fact, identities are often based on relatively superficial appearances (such as phenotype
or genitilia) and used as a way to group people on other practices. One of the many important insights that Penelope Eckert (2000) brought to the discussion of language and identity is that other social practices could be correlated with language in the same way that identities are correlated with language, and that these practices are bundled or assembled with language in larger stylistic practices recognizable as being common to particular identities.

Eckert (2000) measures stylistic practice in a number of ways in Belten High. She begins by showing how the polarizing social categories of the school – “jocks” and “burnouts” – pattern with other stylistic practices such as where one goes at lunchtime, how wide one’s jeans cuff is, and whether or not one goes “cruising” in a car into the nearby urban Detroit. She then shows that the linguistic variants she measures also correlate with some of these practices, as well as with the extent to which speakers are members of social networks associated with these practices. Most importantly she notes that the different variants become symbols of engagement with the school itself (to which jocks orient) or the wider world (the burnout focus). She shows that the patterning of variation in the school is about more than even the jock/burnout, boy/girl categories. Rather, language variation correlates with these categories because the variants are symbols of these other levels of engagement: urban vs. suburban or local vs. non-local. In addition, her study reminds us that, no matter how local our focus, we cannot escape the importance of society-wide structures and forces, in particular socioeconomic ones, since the values inhering in jock practices are very much “US middle-class” values, while burnout practices and values are solidly those of the “US lower class.”

2.1 Identity, agentivity and habitus

Eckert has dubbed this focus on how variation is used to make speaker identities the “third wave” in variation studies. Such studies (e.g. Benor 2001; Podesva 2007; Zhang 2008) focus on the agentivity of speakers and the meaningfulness of variants. Bringing agentivity into identity is an advantage because it means that identity is something that people do, rather than something that is done to them, and begins to explain why we would find correlations between social categories and linguistic variables. Note, however, that this perspective does not imply that speakers make a “conscious” choice every time they form a particular vowel. Rather, Eckert appeals to Bourdieu’s (1977) notion of habitus to bring agentivity into the mix without making choices seem too overtly conscious, while at the same time highlighting that they can be long lasting and individually consistent (yielding the larger variation patterns for class, gender, place, etc.). Habitus, as its relation to the English habit implies, is a person’s set of habits or predispositions. At some point, these predispositions may have been related to a conscious choice to talk, walk, interact, and even think in particular ways. Over time the repetition of such choices leads to them becoming automatic and appearing to be an almost innate part of the person. Since the ways people habitually relate to others is part of the habitus, the habitus thus makes up identity. Of course, the initial choices are not made haphazardly, but in a cultural milieu in which certain ways of being
are desired by the individual and also rewarded. These ways of being are also ratified (or not) by friends, or potential friends, family members, and others in close social networks. Finally, those people with similar habitus are likely to find each other and form friendships and networks, thus reinforcing those networks. Eckert argues that the material for the habitus is not made up out of thin air, but rather exists in current stylistic practices which speakers can recombine into new stylistic practices, including linguistic style. In other words, the process is cyclical: People bring new habits by conscious choice (these choices, however, being built out of existing practices); the new habits become automatic; and these automatic behaviors in turn become building blocks for new habits.

Hence, the notion of habitus enables us to see that identities are at heart agentic, even when they seem to be “automatic” correlates of wide-scale census categories, established role relations and much-used stances. It remains to be explored how linguistic variables can be meaningful and used for this stylistic practice.

### 2.2 Indexicality

Speakers rarely assert directly that they are, for example, a woman, or white, or Bosnian (although they do at times, and these moments are all the more interesting for their rarity). Rather, speakers more often rely on indexical meaning to create their identities. An index is a type of sign in which the signified is inherently or directly connected to its signifier. A non-linguistic example is “dark clouds and thunder mean rain”: the clouds and thunder are experienced almost always with rain, and therefore we make a meaningful connection among them. In the semiotic system of C. S. Peirce (1935), on which this concept rests, indexical meaning is distinguished from symbols, in which there is no connection between the signified and signifier, and icons, in which the signifier resembles the signified (see Chandler (2007) for an excellent introduction to the basic semiotic concepts involved).

#### 2.2.1 Direct and indirect indexicality

Theorizing indexical meaning as it relates to language and identity has been the focus of much of the work of Michael Silverstein (1976, 2003) and Elinor Ochs (1992, 1993), who have made a number of important distinctions among indexical meanings that are crucial for understanding identity and language. The first distinction is between direct and indirect indexicality (Ochs 1992). Direct indexicality is a meaning relationship that holds directly between language and the stance, act, activity, or identity indexed. For example, in English, using certain syntactic forms such as imperatives will generally directly index a relationship of power. The imperative is associated with the context of a speaker who has the power to force the addressee to perform the action stated in the imperative. Indirect indexicality arises when the social relationship (in this case, power) is further indexed to an identity category, such as men. Thus we might notice that men use more imperatives than women, or there might exist (as in the US) a cultural discourse such that men are supposed to be more authoritative than women (or the cultural discourse makes it easier for men to assert
authority). When this is discovered, we might be tempted to say that imperatives index men or masculinity; however, it would be more accurate to say that imperatives indirectly index masculinity because they directly index power, and power is indexed in turn to masculinity.

An illustration of this process can be seen in the American-English address term *dude* (Kiesling 2004). *Dude* is used most frequently by young white men (with some qualifications based on age and region), and indexes a stance of casual solidarity: a friendly, but crucially not intimate, relationship with the addressee. This stance of casual solidarity is a stance habitually taken more by young white American men than other census identity groups. *Dude* thus indirectly indexes young, white masculinity as well. (Although I must point out that it also directly indexes young white masculinity for some speakers, and for others it only indexes stances; indexical meanings change just like everything else in language!)

### 2.2.2 The importance of context for indexicality

Such general descriptions of indexicality are abstract, however, and do not take into account the actual context of speaking, such as the speech event and the identities of the speakers determined through other perceptual modes, such as vision. One of the most difficult aspects of indexicality is that indexes not only “call up” the previous contexts in which a linguistic feature has been used, but the previous contexts they “call up” can be influenced by the current context. Indexical meanings thus interact with the context of speaking, such that the (assumed or “pre-existing”) identity of the speaker can affect the indexicality of a form even as that form is seen as performing an identity. For example, in the US, often when a woman uses an imperative, a particular kind of authority – motherhood – is indexed: when a woman tells a friend (particularly a man) to “put on your coat,” the response is often sarcastically, “yes, mother” (see Tannen (1993) and Cameron (1998) for discussions of such a scenario). In this example, the use of an imperative directly indexes a stance of authority. In the dominant American cultural discourses of femininity, authority is indexed especially in the context of motherhood, so this feminine role is indirectly indexed and available for comment by the addressee of the imperative. Such a response is not made when the speaker is known to be a man (unless the addressee wishes to refigure the speaker as a woman for some reason, in which case the layers of indexicality begin to become quite thick and tangled). One might argue that the content of the imperative is what indexes motherhood: mothers order their children to do things for the children’s own good, especially putting on coats. This argument only points out just how specific indexicality can be, however, as a single phrase can “call up” the stereotypical class of people known in the US as “mothers.” In addition, we might observe that imperatives used by women are more often than not used with such “motherly” content. In any case, note how even such a brief, unremarkable use of language leads to an intricate web of identity indexes. Such are the minute, commonplace, but complex indexical meanings that rely on and recreate identity discourses and ideologies.

Indexicalities are thus sensitive to social context, including who is uttering forms, in what societal context and interactional situations, to make which par-
McElhinny’s (1994) study of police officers in Pittsburgh is particularly relevant in this light. She shows that when a police officer’s identity is salient in an interaction, the officer tends to use less affect in her or his speech. This lack of affect indexes a distant, emotionless stance, a stance that is not indexical of femininity in Pittsburgh. However, the officers who are women told McElhinny that they did not feel less feminine in these situations, because gender is the less relevant identity; in such interactions they think of themselves primarily as police officers. The affectless and emotionless stance thus does not necessarily index masculinity for these women, but “police officer.”

A further example at a more automatic level of processing is Strand and Johnson’s (1996, cited in Strand 2000) studies of the effect of social identity knowledge on perception. Their experiments focused on the perceptual boundary between /s/ and /ʃ/ in American English. Naslund (1993) showed that American women tend to produce /s/ with a higher frequency (among other measures) than men, so Johnson and Strand tested to see if listeners perceived the boundary between /s/ and /ʃ/ differently depending on the speaker’s perceived gender identity. They first determined the gender stereotypicality of four voices, from stereotypically feminine to stereotypically masculine. Then for each voice they created stimuli that varied in regular increments from shod to sod. They played these stimuli in random order for participants and asked the participants to categorize the word as shod or sod. They found that the boundary was significantly different for every different voice, with the stereotypically male voice changing from /ʃ/ to /s/ first, then the non-stereotypical male, and so on, so that the stereotypical male and stereotypical female voices were furthest apart. They repeated the experiment using faces and found similar effects, and their results have recently been replicated by Munson, Jefferson, and McDonald (2006). Similar experiments are outlined in Preston (this volume). These experiments show that context influences perception such that expectations about gender identity influence linguistic perception. Indexical meaning is thus an essential part of the design of human language.

2.2.3 Indexicality as creative and presupposing Further complicating the connections between linguistic form and identity is the fact that indexes can be creative as well as presupposing (Silverstein 1976). That is, an index can be used to change the context (creative) rather than simply respond to the current context (presupposing). The classic example of such context-changing uses is that observed by Blom and Gumperz (1972) in Hemnesberget, Norway, where there was a diglossic (Ferguson 1959) situation in which the variety of Norwegian known as Bokmål was the official language of government and commerce, while Ranamål was the local (“dialect”) variety more typically used for intimate settings. Blom and Gumperz describe an instance in which an inhabitant goes to the community office for official business, and interacts with another local inhabitant who is his friend. The official business is conducted in Bokmål (indexing in a presupposing manner the situation) but, when the official business is finished, the customer switches to Ranamål to indicate he wishes to have a less formal conversation about
local matters. This switch from Bokmål to Ranamål is a creative index, because it changes the context from formal to informal, rather than responding to an external cue such as a change of setting or the arrival of a new participant.

While this distinction between creative and presupposing indexicality is important and useful to begin with, researchers (including Silverstein 2003) have questioned the clarity of this dichotomy to suggest that indexes always have both a creative and a presupposing aspect. Sidnell (2003), for example, describes how language is used to both create and maintain a male space in a Guyanese rum shop. While this setting is understood by the Guyanese as a male space, it is nonetheless often populated by women for various reasons. Sidnell analyzes a stretch of talk in which one of the men drinking in the rum shop designs “his talk ... to preserve the observable gender exclusivity of the activity” (2003: 338). That is, the way his talk is designed creates the space as “male,” even when he is addressing a woman in it and thereby helps maintain or presuppose the “male-only” context.

2.2.4 Indexicality and levels of awareness  A final complication comes from the level of awareness for interpreting indexical meaning. While most indexical meanings are not overtly discussed by speakers, some linguistic features nevertheless become the focus of social discussion and overt knowledge. For example, Americans have become aware of, and can sometimes articulate, the masculine indexicality of dude (they are aware of its use on this societal level), but have much more trouble explaining what it means in terms of local stances, although they intuitively respond to it. Morford (1997) analyzes the use of second person pronouns in French in this light. She shows that, on one level of indexicality, the use of tu and vous in French indexes a relationship between two speakers based on reciprocal vs. asymmetric use of the forms. However, Morford finds that French speakers can discuss fairly specifically what kinds of families have asymmetric use between parents and children, and that some speakers make conscious choices about whether to use tu or vous with other speakers. Most importantly, these choices have to do with the interplay between this metapragmatic awareness and the kinds of identities that speakers wish to create. Morford cites one particularly vivid example of a teacher who explains that he constructs status as a teacher in part through his asymmetric use of second person address with the support staff of the school.

2.2.5 Identity and the indexical field  Indexicalities at different levels are connected through cultural ideologies. Eckert (2008) has proposed the idea of an indexical field to capture the notion that a single variable can have a number of potential meanings at various levels. Eckert defines an indexical field as “a constellation of meanings that are ideologically linked. As such, it is inseparable from the ideological field and can be seen as an embodiment of ideology in linguistic form” (2008: 464). For the English (ing) variable, Eckert proposes that the field consists of binary indexes associated with each variant. The velar meanings she proposes are: formal, educated, effortful, articulate/pretentious. Any of these meanings can be more or
less activated depending on who is speaking, who is listening, the nature of the interaction, and so on. As she notes, “meaning in practice will not be uniform across a population” (2008: 466–467). While Eckert stresses that the variable is only part of an ideological field, it nevertheless puts the variable at the center.

The concept of the indexical field lends insight into how speakers draw on potential meanings, especially those related to stancetaking, to further index identities. We can develop this idea by investigating the ways speakers and hearers link the indexical field to the ideological field populated by identities at different levels. One way of doing this is to think more specifically about the linkages of stance and other identities that are created in variable uses. That is, how does a use index not only individuated meanings, but an entire ideologically interconnected set of meanings that are not aligned by chance but through ideas about what kinds of people take those kinds of stances? Chandler (2007) calls these kinds of connections semiotic alignment. In variation studies, we see this alignment when a single use of a variant brings together several cultural values at once; we might think of an indexical field as a messy collection of possible meanings while semiotic alignment is a more reified connection in a particular use.

For example, in most variation studies of the English (ing) variable, men use more of the coronal variant than women. We might propose therefore that -in’ indexes masculinity, and while there is some support for that, the story is complicated by the fact that masculinity as a cultural ideological idea does not simply indicate men, but indicates practices, attitudes, and stances that men are normatively and ideologically expected to do, have, and take. So, in middle-class US culture, men are expected to have a power, but not necessarily a power that comes from being educated or even trying hard. So stances like easygoing, relaxed, and unpretentious are normatively valued masculine traits and so -in’ can index these stances and traits as well. (It could also be argued that while being uneducated is not necessarily masculine, “educated” can be associated with “unmasculine”; hence the association of -in’ with lack of education in addition to its other indexical meanings.) This line of argument, of course, brings us back to direct and indirect indexicality, although in this case we are not making an argument about which way the meanings go. In a sense, all of these meanings are indexed at the same time because they are semiotically aligned in the ideological field (although one can imagine one meaning or type of meaning becoming more prominent depending on use, as I argue in Kiesling (1998)).

The idea that meanings are always multifaceted and involve various levels of identity is often what lies behind arguments for viewing identities not as mere census categories or points in social space, but as relationships that are more fully articulated. That is, one’s identity as a “man” is not just about male biology but about being a man in the kinds of stances taken and practices performed. So, the kinds of identity relationships that are created through the indexing done by variables are ones in which whole ideological bundles of stances, practices, and attitudes; institutional roles; and census categories are connected to all at once. Eckert (2000) and others use the term “persona” for these kinds of bundles, which clearly can get quite particularistic, stressing the unique intersectional particularities of,
for example, a working-class Hispanic Californian girl vs. a middle-class Anglo Californian girl. Differences among different personas cannot be attributed to a single aspect of a speaker’s identity but to the unique ways in which each person forms relationships with their social world(s).

This means that while individual identity meanings such as “masculine” or “casual” can be isolated in experiments by asking speakers about them, we find that they are nevertheless connected in complex ways, and what we already know about a speaker also affects how we interpret the indexicality of any variants she or he uses. Campbell-Kibler’s (2007, 2008, 2009) matched-guise experiments provide support for this interpretation of how sociolinguistic variables index identities, as does Strand’s work cited above. Campbell-Kibler’s work in general shows that ways that listeners think about particular speakers affect the way they interpret the indexicality of a particular linguistic variable. She focused on the (ing) variable in English, and used extracts from sociolinguistic interviews as stimuli. However, she digitally manipulated these stimuli so that both the [ɪŋ] and [ɪn] variants appeared in recordings that were otherwise exactly the same.

The general results show that the meaning of a variant is highly sensitive to a host of factors, and in her experiments she explored the differential effects of a variety of factors, including perceived region and perceived social class (which might not match where speakers are really from or their “true” socioeconomic status, however we might best measure that). Campbell-Kibler (2009) found that the effect of (ing) changed depending on how listeners categorized speakers in terms of class and region. If a speaker were perceived to be above “working-class” status, there was no difference for guises with [ɪn] vs. those with [ɪŋ] in whether or not the speaker was heard as intelligent. If speakers were judged to be from the South, they were heard as less intelligent, again regardless of guise (not surprising, given US stereotypes about the South). However, if a speaker was not heard as being southern and judged to be working class, then the production of (ing) had a large effect, with the [ɪn] guises being rated as less intelligent than those with [ɪŋ]. Of course, (ing) plays a part in the judgment of class and region, but the matched-guise test shows that the (ing) variant switch only makes a significant difference when class and region intersect in very particular ways. Campbell-Kibler also showed that, even though each variant of (ing) carries some core meanings, the [ɪn] and [ɪŋ] productions had different effects depending on the topic of the recording; however, topic did not have a consistent effect across all speakers and listeners. Perhaps most interesting is the result that for one speaker, listeners thought that the [ɪŋ] variant actually made her sound less intelligent: Campbell-Kibler was able to use the interview materials to understand that many listeners thought that this speaker was seen as using [ɪŋ] to sound more intelligent than she was – she was using it “inauthentically.” Other speakers and topics produced different responses.

The complexity of Campbell-Kibler’s results are in themselves instructive. They show that while there may be some vague central social meanings for some linguistic variants, concrete meanings are realized only in particular contexts, and these contexts intersect to create unique meanings in each interaction, and even different meanings within a given interaction, whether for different interactants
or even a single interactant as the speech event unfolds. Further, the fact that meanings are rooted in contexts also means that previous interactions will color our interpretations of the social meanings of variants in current interaction. So linguistic variables on the one hand help create social meanings and individual/interrelational identities; at the same time, the interpretation of how variables index identities depends on our pre-existing ideas about what identities people already are bringing to the conversation. Once again we are brought back to the fact that the relationship between sociolinguistic variables and social meanings and identities is bidirectional, as meanings are both created and invoked in particular interactional contexts.

3 Constructing Identity on Multiple Levels

While the previous sections point to caution in making definitive connections between variants and various identities, it should be clear, especially from the discussion of indexical fields, that some patterns have been regularly found in multiple studies. However, one of the most problematic caveats for these patterns is that they tend to be based on large-scale urban, mostly Western, and largely English-speaking communities. Since there is no space here to review all of these patterns, the reader is directed to the other chapters in this Handbook that review some of these patterns, particularly those found in Part V. Some general patterns for census identities can be discerned in terms of whether relations among census group categories are organized according to axes of differentiation, similarity, or stratification (or differentiation, adequation, and authorization in the terms of Bucholtz and Hall (2004)).

As we have seen, identity is multi-layered, and census categories connect through semiotic alignments to identities having to do with institutional roles (e.g. mother, police officer), stances, character traits (e.g. authoritative, tough, easygoing, detached), and character types or personae (e.g. Hispanic Californian girl, “authentic” Rhode Island Dominican American). For example, working-class people are often portrayed as being both more authentic and real at the same time as they are stereotyped as more direct, less discreet, and less “book smart” than middle-class people, who are at times characterized negatively in a number of ways, not the least of which is that they are weaker and less “street smart” than the working class. Other census categories such as gender and race, of course, carry stereotypes as well, and so sociolinguistic variables get indexed not just to the identity but also to the ideologies and stereotypes surrounding that identity in a larger semiotic ideology. It is in this way that the levels of identity get connected through variation: the stances, personae, and census identities become aligned in semiotic ideologies that multiply their effects.

Coupland (2007: 111–115) addresses the intersectionality among stance, personae, and census-level identities. He presents several “identity contextualization processes” that create identities: targeting, framing, voicing, keying, and loading. Targeting refers to the target of the identity construction: speaker, hearer, or other individuals or groups. In most cases the speaker and someone else will be targeted.
in some way. In general, variation assumes that the speaker’s own identity is primarily at issue, but Coupland points out that often other identities, including that of the hearer or some absent other, are targeted. For example, if I as a non-Pittsburgh native use a variant associated with Pittsburgh, then I am implicitly suggesting that the hearer should be able to recognize this variant and thus must be a Pittsburgher – the variant targets the hearer as well as the speaker.

Framing refers basically to the domain or level of identity most oriented to by speakers. Coupland identifies three levels of framing that are roughly equivalent to the three levels of identity discussed above: sociocultural framing is about census identities, genre framing is about more immediate identities based on the current situation and current interactants, and interpersonal framing is about stances. Voicing is similar to Goffman’s (1981) division of speaker footing into author, animator, and principal, but also draws on Bakhtin’s (1981) notion that a single speaker may deploy multiple voices at different times, and thus create different relationships to others, including whom he or she is voicing. Keying relates to how to take the talk, for example, as playful or malicious. Loading has to do with the importance with which a speaker invests an utterance. Coupland shows how this multidimensional model of identity creation can be employed to reinterpret his well-known study of stylistic variation in the workday speech of an assistant in a travel agency in Cardiff, Wales, such that when we view the assistant’s subtle moves and uses of variation through these various frames, we can see how she is using language variation to construct and reconstruct census-level, role-relational, and stance-level identities, rather than simply identities of alignment with or distance from her interlocutors.

Given that the identities that are constructed partially through language are related to ideologies of language and identity themselves, one might ask where these ideologies come from, and to what extent speakers share them. There are multiple sources by which identity ideologies are learned and circulated, but, as with the relation between linguistic variation and social meaning, ideologies too are created and re-created in a reflexive process of language use and language evaluation. Basically, there has to be some way in which speakers collectively notice (although not necessarily overtly) that linguistic variables get connected with certain kinds of stances, persons, and/or groups and then make evaluations of these variables based on (or perhaps along with) their evaluations of the moves, traits, and groups with which the linguistic forms are associated. At an elemental level, for example, a little boy may notice that his father tends to use one kind of language and his mother another and then make connections on multiple levels with each parent’s linguistic usages – for example, between his father’s language and authority, the US working class, men, and masculinity.

4 Reconstructing Identity

Identity is constructed through connections between language variation and social meaning – through the intersection of multiple indexicalities. These indexicalities
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point to different kinds of relationships that speakers orient to in the interaction, and rely upon semiotic sociocultural ideologies about relationships as construction material. For variationists, this view means that finding statistical relationships is only the first step in understanding and explaining why language patterns and changes as it does. The next step is to look both more broadly and more deeply — to look closely at the historical and cultural backdrop of identities and the more general semiotic ideologies in which they are involved, and to look intently at the moment-to-moment use of variants in interactions that both draw from and accrete into these larger patterns. Identity construction is neither local nor global, micro nor macro, but represents a dialectic between them.

REFERENCES


Until recently, space has largely been treated as an empty stage on which socio-linguistic processes are enacted. It has been unexamined, untheorised and its role in shaping and being shaped by variation and change untested. One function of this chapter, therefore, is to show that space makes a difference, and to begin, in a very hesitant way, to map out what a geographically informed variation analysis might need to address. It also examines variationist interactions with the related concept of mobility.

It might be reasonable to think that human geographers would provide some clues on how to proceed. As we will see, they have engaged in a great deal of soul searching about the goals of their discipline, its very existence as a separate field of enquiry, and the directions it should take. Indeed, there are remarkable parallels between the recent history of human-geographic thought and interest in language variation across space. Although space has been undertheorised in variation studies, a number of researchers, from the traditional dialectologists through to those interested in the dialectology of mobility and contact, have, of course, been actively engaged in research on geographical variation and language use. Their work will be contextualised here to highlight both the parallels with theory-building in human geography and also some of the criticisms of earlier approaches that have fed through to human geography but remain largely unquestioned in variationist practice.

The chapter therefore presents a brief theoretical background to space and mobility, before exemplifying these concepts in variationist research through an
examination of, for example, the spatial diffusion of linguistic innovations, the spatial configuration of linguistic boundaries and initial steps to examine the consequences of mobility for variationist research.

## 1 Space

The human geographic literature has distinguished three forms of space that are relevant to our discussions here:

1. **Euclidean space** – the objective, geometric, socially divorced space of mathematics and physics. When we measure the land area of New Zealand or the as-the-crow-flies distance from Portland to Pittsburgh, it is Euclidean space that we are measuring.

2. **Social space** – the space shaped by social organisation and human agency, by the human manipulation of the landscape, by the creation of a built environment and by the relationship of these to the way the state spatially organises and controls at a political level.

3. **Perceived space** – how civil society perceives its immediate and not so immediate environments – important given the way people’s environmental perceptions and attitudes construct and are constructed by everyday practice.

Together these three combine to create *spatiality*, a key human-geographic concept (see, further, Britain 2009a, 2010a). None of these three can exist independently of one another. Geometric space is appropriated and thus made social through human settlement, but social space can never be entirely free of the physical friction of distance. And our perceptions and value systems associated with our surroundings, although deeply affected by both social and Euclidean space, can in themselves affect the way space is later appropriated and colonised. Importantly, spatiality is not fixed and concrete but, as Pred puts it, always in a state of “becoming” (1984: 282).

Doreen Massey (1984, 1985) has charted three distinct periods in the theoretical development of spatiality in social scientific thought. These are mirrored in quite direct ways in the history of the investigation of geolinguistic variation. Before the 1960s, she claims, human geography was about “regions”, the focus of study being on place, difference and distinctiveness. Rather than focusing on spatial processes or structures, individual areas were analysed for individual unique characteristics. “Too often”, she states (Massey 1984: 2), “it degenerated into an essentially descriptive and untheorised collection of facts”. This period coincides most obviously with that represented by traditional dialectology. It, too, had largely descriptive aims, it too focused on places, on regions, on focal areas and their boundaries, on local dialectal variability and differentiation. Making few demands on social theory of any kind, it treated space, at least in its initial forms, as the blank canvas on which dialectological findings could be mapped. Although traditional dialectology is often portrayed as one of the earliest forms of geolinguistics, it has largely made a cartographical rather than geographical contribution.
to the discipline. The role of space is largely reduced to that of data presentation on maps. In fact, the historicist agenda of traditional dialectology is one which has pervaded variation studies throughout its brief life – consider the primacy for many variationists of the apparent-time model. We do not debate – though such a debate would be insightful – the validity of an “apparent-space” model that is actually implicit in most apparent-time studies. While we theorise intricately about language across the lifespan and the extent to which the apparent-time model can accurately capture the passing of socially-imbued time, we rarely pay attention to the evolution of speakers’ and communities’ spatialities over the same time-span, despite the evident and dramatic technological, transportational, economic, demographic, social and geographical changes that have affected modern speech communities over the past 50 years in which sociolinguists have been active. Soja (1989: 10–11) is probably the most prominent human geographer to question this obsession with time over space:

An essentially historical epistemology continues to pervade the critical consciousness of modern social theory. It still comprehends the world primarily through the dynamics arising from the emplacement of social being and becoming in the interpretive contexts of time. . . . This historicism . . . has tended to occlude a comparable critical sensibility to the spatiality of social life, a practical theoretical consciousness that sees the life-world of being creatively located not only in the making of history, but also in the construction of human geographies, the social production of space and the restless formation and reformation of geographical landscapes.

In the 1960s the whole situation changed, in human geography, dialectology and the social sciences in general. The quantitative revolution broke out. Its consequences had different effects on sociology and sociolinguistic dialectology on the one hand, and human geography and geolinguistics on the other. Within the former, spatiality was largely ignored. Social relations and social structures were quantified and correlated with other social structures, or in the case of sociolinguistic dialectology, with linguistic variables (Labov 1966). The scientific empiricism of the time meant that the regular, the general and the neutral took precedence over the specific, the individual and the unique.

Despite Labov’s very early work on rural Martha’s Vineyard (1963),2 the vast majority of variationist studies carried out within the same framework since have looked at urban communities: Labov himself, of course, in New York (1966 [2006]); Wolfram (1969) in Detroit; Sankoff and Cedergren (1971) in Montreal; Milroy (1980) in Belfast; Haeri (1996) in Cairo; Kerswill and Williams (2000) in Milton Keynes; Lawson (2011) in Glasgow, and so on. Very few focused on rural locations. The urban bias of variationist sociolinguistics has rarely been questioned (see Britain 2009b, 2012a, for a critique). On the surface, it appears to be an obvious reaction to the largely rural focus and outmoded data collection practices of traditional dialectology. Researching in the city was probably seen as the way to gain access to the most fluid and heterogeneous communities, and therefore to tackle the issue of the social embedding of change “where it’s all happening”, in the bustle and bright lights of the metropolis. It could, though, be viewed as
throwing the rural baby out with the traditional dialectological bathwater. This urbanism still pervades much of the discipline: the rural is still portrayed as the insular, the isolated, the static, as a “quiet, tranquil, even backward place where nothing interesting happens” (Woods 2011: 35) rather than as composed of heterogeneous communities, of contact, of change, of conflict (see Cloke and Little 1997; Woods 2011.) But language varies and changes in rural as well as urban communities, and while the triggers of variation and change may well be most vividly and visibly observed in cities, they are not confined sociologically, historically or epistemologically to an urban context (Britain 2009b, 2012a).

Sociologists had society to quantify, sociolinguistic dialectologists had linguistic variables to quantify, but what about human geographers? All they had was space, a dimension. So they set about the task of establishing a quantified human geography, drawing up spatial laws, spatial relationships and spatial processes, all of which could be explained by spatial factors, without reference to social content. It was at this time that such concepts as “the friction of distance” and gravity models were drawn upon to explain empirically discovered spatial regularities. Euclidean space came into its own.

Just as social theory despatialised itself as a result of the quantitative revolution, and human geography became concerned solely with space, so the studies of linguistic heterogeneity in space, society and time were theorised as a “natural alliance” (Labov 1982: 20) but of separate disciplines, with dialect geographers studying heterogeneity in space and sociolinguists studying heterogeneity in society. The view that space and society were distinguishable entities was typical of the time. Massey (1984) notes that “in terms of the relation between the social and the spatial, this was the period of perhaps the greatest conceptual separation. . . . For their part, the other [non-geographic] disciplines forgot about space altogether” (1984: 3) and “continued to function, by and large, as though the world operated, and society existed, on the head of a pin, in a spaceless, geographically undifferentiated world” (1984: 4).

The human geographic focus on spatial causes and motivations stimulated much of the early sociolinguistic work in dialect geography, perhaps most notably in the analysis of the spatial diffusion of innovations and, in particular, the adoption of gravity models (e.g. Trudgill 1974, 1983; Callary 1975; Hernández Campoy 2003), but was also evident, earlier, in the neolinguistic tradition (see, for example, Bartoli 1945; Bonfante 1947). Early geolinguistic work on the spread of innovations was triggered by influential diffusion models proposed by the Swedish geographer Torsten Hägerstrand (e.g. 1952). His work initiated the sub-discipline of time-geography – which investigated the creation of spaces through the interaction of people’s “time-space biographies” (see also Pred 1981; Carlstein 1981). It was his modeling of spatial diffusion, however (rather a small part of time-geography), that had the greatest impact on dialectology, since it provided a framework to enable the visual display of geographical distributions of the frequencies of linguistic innovations, “the spatial diffusion of ratios” (Trudgill 1983: 61). A presentation and critique of dialectological work on innovation diffusion and gravity models will follow later.
Massey has criticised the quantificational approach to space as being insensitive to the local and the unique: “The ‘old regional geography’ may have had its disadvantages but at least it did retain within its meaning of ‘the spatial’ a notion of ‘place’, attention to the ‘natural’ world, and an appreciation of richness and specificity. One of the worst results of the schools of quantification and spatial analysis was their reduction of all this to the simple (but quantifiable) notion of distance” (Massey 1984: 5). The difference between this “sociolinguistic dialect geography” (Trudgill 1974) and the largely urban speech community sociolinguistics of the late 1960s and 1970s cannot be clearer, the former asocially quantifying space, and the latter aspatially quantifying society. Dialect geographers were busy quantifying geometric space, devoid of its social content, whilst urban sociolinguists studied their speech communities with little regard for their integration into a larger socio-spatial framework.

A radical shift away from the spatial fetish in human geography began in the mid-1970s (Massey 1984, 1985). The initial move was to deny the spatial altogether, with a view, diametrically opposed to that of its philosophical predecessors, that the spatial was purely social, a construct of practice and social structure. The role of human geographers during this initial stage descended into “a position at the end of the transmission belt of the social sciences, dutifully mapping the outcomes of processes which it was the role of others to study” (Massey 1985: 12). It is important to note at this point, therefore, that the tremendous and valuable progress that has been made of late in mapping techniques in dialectology (see further below, and Lameli, Kehrein and Rabanus 2010) still largely represents the portrayal, the display – sophisticated and eyecatching, admittedly – of data, rather than an explanation of the patterns found. The response to this rejection of the spatial in the 1970s was that “geography” was underestimated . . . Space is a social construct – yes. But social relations are also constructed over space, and that makes a difference” (Massey 1985: 12). “The difference that space makes” (Massey 1984; Sayer 1985; Cochrane 1987) became a dominant theme of mainstream human geography from the 1980s. Rather than space being seen as having no effect whatsoever on social process or it having, in itself, causal powers, geographers argued for the need to consider spatiality as a contingent effect that contributes to the contextual conditions that can affect how or if causal powers act (e.g. Duncan 1989: 133).

2 Dialect Cartography

As mentioned above, the display of dialectological data on maps has both a long painstakingly detailed historical past and a recent, more technologically driven present. Chambers and Trudgill indeed talk of a renaissance in dialect geography in the late twentieth century (1998: 19), following a lull after the demise of traditional dialectology during which time “dialect geography all but disappeared as an international discipline” (1998: 20; see discussion above). They attribute the rebirth first to technology (see also Kretzschmar and Schneider 1996): the ability to readily create and display, on computer, large numbers of maps containing
complex data sets for many linguistic variables, and make them readily available both in publications such as the *Atlas of North American English* (Labov, Ash and Boberg 2001) and on interactive websites such as that maintained by William Kretzschmar at the University of Georgia. Dialect atlases were huge, often unanalytical (presenting, for example, phonological evidence lexical item by lexical item, rather than lexical set by lexical set), cartographically dull and extremely expensive; the newer work is more interactive, often driven by sophisticated data-gathering techniques such as geographic information systems (GIS), available electronically and (consequently) visually more appealing (see Lameli *et al.* (2010) for a comprehensive guide to language mapping). The second reason for the revival is, ironically, the reason for the obsolescence of traditional dialectology in the first place: the advent of variationist methods in the 1960s. The new cartographic dialectology has begun to sensitise itself to questions of inter-speaker variability, to change across the generations, to the social embedding of variation, and so forth – the very factors that saw dialect geography wither in the mid-twentieth century.

It is also noteworthy that in many cases the data that are being presented using the new techniques are the very same data collected half a century previously: traditional dialectological corpora (see, for example, Kretzschmar and Schneider 1996; Upton and Widdowson 1996; Shackleton 2010), rather than freshly collected data sets, which supports the claim by Trudgill (1983: 31–51) that such data are extremely useful if handled with care. All levels of variation have been mapped: lexical, most predominantly, but also phonological, morphological and grammatical. The example below is interesting in that, unlike the mostly lexically and phonologically oriented cartographic work in the field, it deals with the grammatical constraints on syntactic variation and change. It is based on Heap’s (1997, 1999) analysis of pro-drop variation in the Romance varieties of central France, southern Switzerland and northern Italy. Figure 22.1a, Figure 22.1b and Figure

![Figure 22.1a](image_url)

**Figure 22.1a** Pronoun presence in first person contexts in central France, southern Switzerland, and northern Italy (filled squares = categorical presence; empty squares = 80–100% presence; circles = 0–20% presence).

Figure 22.1b Pronoun presence in second person contexts in central France, southern Switzerland, and northern Italy (filled squares = categorical presence; empty squares = 80–100% presence; circles = 0–20% presence).

Figure 22.1c Pronoun presence in third person contexts in central France, southern Switzerland, and northern Italy (filled squares = categorical presence; empty squares = 80–100% presence; circles = 0–20% presence).

22.1c show, respectively, the areas with 100 percent, 80–99 percent or 0–20 percent pro-retention in first, second and third persons, respectively, as found in Gilliéron and Edmont’s (1902–1910) *Atlas Linguistique de la France*, and Jaberg and Jud’s (1928–1940) *Sprach- und Sachatlas Italiens und der Südschweiz*. Figure 22.1a shows a relatively small area of consistent pro-retention across central France, the far north of Italy and southern Switzerland, whereas Figure 22.1b shows that all of Romance Switzerland, most of northern Italy and a good part of central France retain the pronoun in second person contexts. Interestingly, here, there are very few speakers between 20 percent and 100 percent pro-retention. Figure 22.1c, for third person
contexts, shows a pattern mid-way between figures 22.1a and 22.1b – a greater distribution of locations with a high frequency of pro-retention than in first person, but less categorically than for second person.

3 Innovation Diffusion

The earliest suggested model of the spatial diffusion of innovations, and the simplest as it relies solely on the friction of distance, is the “wave model” (sometimes referred to as “contagion diffusion” – Bailey et al. 1993), whereby innovations, over time, radiate out from a central focal area, reaching physically nearby locations before those at ever greater distances. Relatively few examples of such diffusion have been found in the literature, however, perhaps reflecting its status as an iconic representation of diffusion, like the ripple created by raindrops falling in a puddle of water, rather than one representing some empirically discovered pattern. Bailey et al. (1993: 379–380) do suggest that contagion diffusion is at work in the spread of lax nuclei of /i/ in words such as “field” across Oklahoma though.

A more common finding is a hierarchical (or “cascade”) effect, with innovations descending down an urban hierarchy of large city to city, to large town, to town, village and country. Most well-known, here, is Trudgill’s (1983) work on vowel change in the Brunlanes peninsula of Southern Norway which explicitly adopted ideas, both methodological and theoretical, from Hägerstrand’s time-geography. Via small group unstructured interactions in a number of roughly evenly spaced locations across the peninsula, he investigated the lowering of (æ) in Brunlanes Norwegian, using an index score whereby $100 = [ε], 200 = [ɛ], 300 = [æ], 400 = [æ]$, and $500 = [a:]$. In each evenly spaced location, an average index score for each age group was calculated, and the distribution of these can be seen in Figure 22.2a, Figure 22.2b, and Figure 22.2c. His findings enabled him to draw a number of conclusions:

Figure 22.2a  (æ) in Brunlanes, Norway, among speakers aged 70 or over.  
Figure 22.2b  (æ) in Brunlanes, Norway, among speakers aged 25–69.

Figure 22.2c  (æ) in Brunlanes, Norway, among speakers aged 24 or under.

a. “the three maps . . . provide a demonstration in apparent time of the linguistic change of this vowel and show that this is a useful method of portraying cartographically linguistically gradient phenomena” (1983: 70);
b. More open vowels are spreading out from the largest centre of Larvik to the smaller urban locations of Stavern and Hamna, with younger speakers using more open vowels than older speakers;
c. Rural areas found between the urban locations tend, however, to lower less;
d. The village of Helgeroa seems to be emerging as a centre of resistance, while the influence of Larvik and Stavern on their rural hinterlands appears to be increasing, and that of Hamna decreasing. Trudgill explains that “changes in the Brunlanes transport situation” (1983: 71) can explain these developments.
Hierarchical effects have also been found in other studies: by Bailey et al. (1993: 368–372) who convincingly demonstrate this hierarchy in action in their investigations of the diffusion of the unrounding of /ɔ/ to [ɑ] (in words such as “hawk”) in Oklahoma; in Callary’s (1975) study of the raising and diphthongisation of /æ/ in northern Illinois; by Gerritsen and Jansen (1980) investigating the spread of open monophthongised variants of /ei/ in the Netherlands; by Hernández Campoy (2003) studying the standardisation of Spanish in the region of Murcia; and by Labov (2003) examining the diffusion from Philadelphia to Pittsburgh of the term “hoagie” to denote a sandwich in a long roll. The usual explanation for cascade diffusion is that whilst distance plays some role, interaction between urban centres in modern societies is likely to be greater, and therefore a more frequent and effective conduit for accommodation and the transmission of innovations than between urban and rural. Transportation networks, the argument goes, tend to link urban with urban, the socioeconomic and consumer infrastructure tends to be based in and oriented towards urban centres, with the ensuing consequences for employment and commuting patterns, and these feed the hierarchical nature of diffusion.

Alongside his early geolinguistic work, Trudgill (1974) adopted from the economic geography of the time gravity models that suggested both that a combination of distance and population interacted in the likely influence two places would have on each other, and that they could be used to predict the routes of change an innovation may take, and account for the hierarchical rather than contagious nature of the spatial diffusion of innovations. (The standard calculation of the interaction of places A and B involves multiplying the populations of the two places, and then dividing that total by the square of the distance between the two places.) Many of the urban hierarchy studies listed above adopted this technique in their own research. Hernández Campoy’s discussions (e.g. 2003) of the urban hierarchical flow of standardisation in southeastern Spain provide a very detailed outline both of the theory and methodology of gravity models. He shows how, in the region of Murcia in southeastern Spain, the local deletion of intervocalic /d/ (especially in past participles –ado, as in terminado “finished”) is being eroded by standardisation. Using an adaptation of the gravity model formula, he shows how the use of the standard form of (d) has diffused hierarchically through the region. The model predicts that the larger urban centres of the region – Murcia City and Cartagena – should receive the innovation most vigorously, and the smaller centres less so. The predictions were subsequently borne out by his variation analysis of (d).

Horvath and Horvath (1997) propose, in research on the vocalisation of /l/ in Australian English, a “cultural hearth” model – a combination of contagion and hierarchy whereby a feature gains a foothold in both town and country in one particular region before diffusing to other regions. They found that vocalisation was at its greatest not in the larger cities of Sydney and Melbourne, but in “the most slowly growing parts of the older core” (1997: 120) of the country, the South Australian centres of Adelaide and Mount Gambier. Later they expand their “cultural hearth” model by incorporating New Zealand cities into the analysis (Horvath and Horvath 2002) and they make important inroads into the cartography of dif-
fusion by using Varbrul analyses to inform visual displays of statistically significant interactions between place and social and linguistic constraints.

Rarely, but occasionally, innovations diffuse against the urban hierarchy. Bailey et al. (1993: 371–373), who found rural-to-urban diffusion of the quasi-modal “fixing to” in Oklahoma, label these cases contrahierarchical diffusion (1993: 374; Trudgill 1986).

The human geographical literature has not looked kindly, however, on the modeling of spatial diffusion and on gravity models in particular. Cutting critiques of its lack of sensitivity to social context, and its outdated application of spatial laws and spatial processes (see above), have been presented by, for example, Gregory (1985, 2000) and Blaikie (1978). Firstly, it is frequently argued that much diffusion research has been “subordinated to the objectivist logics of spatial science” (Gregory 2000: 177). Gravity models depend on a Euclidean, geometric view of space where physical distance and total population count as the sole determinants of the influence one community is likely to have on another. But although gravity models predict influence of place A on place X (and Y and Z . . .), based on the distance between place A and the other locations, we know little about the spatiality of that distance. Physical, social and perceptual factors (mountains, marshes, motorways, lack of roads or public transport, employment black-pots, shopping malls, xenophobia or external negative perceptions of place) can all minimise or maximise that distance in the eyes (and mouths) of speakers, and, thereby, the actual effect place A will have on others. Furthermore, the spatiality of face-to-face communication, and the nature of what Hägerstrand called “coupling constraints” – constraints on people’s abilities and resources to participate in face-to-face interaction – will additionally disrupt the “pure” operation of a mathematical gravity effect.

Gregory has argued further that such approaches fail to “cut through the connective tissue of the world in such a way that its fundamental integrities are retained. Obvious examples include the detachment of ‘potential adopters’ from their social moorings and the displacement of subjects from social struggles” (Gregory 1985: 328). He argues such approaches conceptualise the world not as a “multidimensional structure” but “squashed into a flat surface, pockmarked only by the space-time incidence of events” (1985: 328). In most models of spatial diffusion presented in the literature, we learn little about the adopters and the non-adopters of innovations – rarely do we even learn, for example, if they are male or female, let alone learn more about their gender identities and other aspects of their social being. And gravity models, indeed, “predicting” the influence of place A on place X, work from the assumption that everyone in place A who uses the innovation has an equal chance of passing it on and everyone in the geographic path of the innovation, in place X, has an equal chance of adopting it, an absurdly untenable position. Some groups are more mobile and are more likely therefore to meet non-locals than others (see below). As James Milroy and Lesley Milroy (1985) have shown, it is the central classes of society who have weaker social networks, and who tend to be more mobile (in the hunt for job stability and socio-economic advancement) whilst at the extremes are those who cannot move or do
Contact

not need to. Some communities, therefore, may be in a better position to influence than others. In other words, innovation diffusion models have radically downplayed the richness and complexity of social life and social interaction.

Secondly, such models have tended to treat the non-adoption of innovations as the result of a petering out of the innovation’s impetus rather than because of the possible active rejection of it by communities of speakers; Gregory argues, following Yapa, that “non-adoption is not a passive state where the ‘friction of distance’ applies a brake to innovation . . . but rather an active state arising out of the structural arrangements of society” (Gregory 1985: 319; Yapa 1977: 319). Resistance, he says, “connotes a process of sustained struggle: considered and collective action on the part of people whose evaluation of the available information may be strikingly different to that of the ‘potential adopters’” (Gregory 2000: 176). Such resistance has been proposed, for example, by Wells (1982: 354) to account for the lack of adoption of the long /ɑː/ vowel in the BATH lexical set in northern England.

Thirdly, diffusion models have often tended to ignore the structural contradictions that may hinder innovation adoption (Gregory 1985: 323; Britain 2005, 2009a). For example, diffusing innovations may well confront communities in which the linguistic system is not compatible with that innovation, and consequently it may be slowed down not for “spatial” reasons, or social reasons, but linguistic ones. For example, the fronting of vowel nuclei in the GOAT lexical set, common to many parts of southern England, has reached parts of eastern England that retain the distinction between Middle English (ME) ɔu and ɔː (so that today “rows” is /raʊz/ and “rose” is /ruːz/). The result has been not that the traditional system has been swept away by a fronted GOAT vowel, but that fronting has only affected the modern day reflexes of ME ou and not ME ɔː, resulting in, for example, “rows of roses” [ɹəzəuɹəz]. Structural incompatibilities of this kind could also, partly, account for why Liverpool English has managed to resist the adoption of the glottal stop for /t/ – its traditional accent has a complex array of spirantised and fricated variants of /t/ including [h] and [tʃ] (see Watson 2006; Britain 2009a: 150).

Finally, from a linguistic perspective, we can point to a general avoidance (until recently) of conceptualizing innovation diffusion as a form of contact, whereby a new form and an old form clash, rather than as an innovative form merely replacing a conservative one (see Trudgill 1986: 57–82; Britain 2009a, 2010b, 2012b).

Gregory argues that diffusion models portray the advance of innovations as “a sequence of distributional changes” (Gregory 1985: 304), yet we often find in the diffusion literature that innovations mutate en route. Labov (2007) has examined the sorts of changes diffusing features can undergo. He has shown how the New York system of tensing and raising of short /a/, determined by complex phonological, grammatical, lexical and stylistic constraints, has been simplified as it has been diffused to Albany, Cincinnati and New Orleans. The tensing of /a/ continues in each, but some of the more marked constraints on tensing have been lost in the diffusion process, and the simplifications to the system appear to be different in each city. Innovations, then, can mutate as they diffuse, both in their linguistic structure, and, as Mees and Collins (1999) show in their investigations of the use of glottal stop for /t/ in Cardiff, Wales, in the way they are evaluated by speakers.
4 Dialect Boundaries and Transitions

Linguistic boundaries can be signs either of contact and change – the “beachheads” (Chambers and Trudgill 1998: 112) of diffusing innovations – or of relative isolation and conservatism – the barriers of mountain and marshland, the break in interaction networks. The concentration on regions and focal areas in traditional dialectology led to the need to describe and explain the boundaries between regions. Dialect atlases, often displaying phonological forms word by word, rather than variable by variable, represented these boundaries as abrupt, discrete and invariable. Form \( x \) appeared to be used consistently on one side and form \( y \) on the other. Chambers and Trudgill’s (1998) discussion and reanalysis of two of the most widely cited isoglosses in the English dialect literature – the \( \ddot{u} / \ddot{a} \) (in the strut lexical set) and \( a / \dddot{a} \): (in the bath set) divisions between the northern and southern dialects of England – provided a sharp critique of the validity of the isogloss. These isoglosses, shown in Figure 22.3, derive from analyses of data in the Survey of English Dialects (SED) (e.g. Wakelin 1972).

In truth, however, dialectologists had long recognised that the boundaries for these variables were much more complex than these maps portray. Back in 1889, Ellis was, for example, fully aware of the fuzzy nature of the \( \ddot{u} / \ddot{a} \) boundary. Indeed, in his dialect classification system of England, he explicitly marked both the northerly reach of \([\dddot{a}]\) and the southerly reach of \([\ddot{u}]\), thereby tracing a wide intermediate zone where there was variation. He finds (1889: 17) that “the intermediate country . . . is mixed, with one or the other form of U fully asserted, or transitional, a new form” resulting from the interaction of \([\ddot{u}]\) and \([\dddot{a}]\). His subsequent data exposition and analysis of the relevant areas of England frequently reiterates the highly mixed and variable nature of this transition zone (e.g. Ellis 1889: 253). Chambers and Trudgill reanalysed multiple examples of each lexical set from the very same data sets from which the isoglossic representations of the border had derived (the SED’s Basic Materials) and, like Ellis, found that these isoglosses were in fact transition zones, broad areas of linguistic variability dividing regions of categoricity. My own variationist analyses of part of this transition zone (Britain 1991, 2001, 2010c), based on informal conversational data, showed an area of variability in which a wide range of interdialectal forms \([\ddot{u} \sim \dddot{a} \sim \ddot{u}]\) were found between the northern and western \([\ddot{u}]\) and southern and eastern \([\dddot{a}]\) extremes. Whilst the overall index scores for the region showed a more or less gentle progression from northwest to southeast (Figure 22.4), an analysis of the lects of individual speakers, as Chambers and Trudgill had conducted on the SED data, was very revealing: within the transition zone, there was considerable evidence of a gradual focusing on an interdialectal \([\dddot{a}]\) form, indicative perhaps of a stabilisation or fossilisation of the transition. My analysis also showed, however, that in certain parts of the region, the transition zone was becoming much narrower, and speakers more categorical.

Chambers and Trudgill (1998: 113–118) also found variability in the SED data in the transition from \(/a/\) to \(/\ddot{u}/\) in the same location. My analyses of conversational
data (Britain 2001), however, unearthed a rather different pattern, one quite unlike the ʊ/ʌ variability, and one that perhaps begs us to forgive the isogloss somewhat. Figure 22.5a and Figure 22.5b show the regional distribution of short [a] and long [aː] forms in the BATH lexical set in the Fens for older and younger speakers, respectively. Both maps show that those speakers who are variable have nevertheless a very dominant tendency indeed to prefer one or other of the variants. The area between the zones of near-categoricity on either side is very sparsely populated, and marks a socioeconomic functional zone boundary between the west...
and the central Fens. Among the young, the area between near-categorical zones on either side was narrower, and the near-categorical speakers on each side were more categorical than the older generations, suggesting an emerging isoglossisation of a former transition.

The role that cultural factors play in explaining dialect boundaries is well attested. We will see later that such factors can help account for the Fenland boundaries outlined above. Dinkin shows that the avoidance of the Northern Cities Vowel Shift in one part of eastern Upstate New York can be accounted for by a wave of Dutch migrants (2009: 431); Evanini (2009) shows that the dialectological status of the city of Erie, Pennsylvania, has shifted from Northern to Midland as a result of a timely migration of Scots-Irish settlers from further south in the state, and Labov (2010: Chapter 10) suggests that one of the reasons that the Northern Cities Shift has largely failed to make much progress into the Midland is because of the resistance of the latter to Yankee cultural imperialism. Cramer (2010), examining the city of Louisville, Kentucky, at the Southern-Midland border, argues that this border is also political, cultural, attitudinal and historical, and, investigating the geographical identities of residents, finds the complex array of
Figure 22.5a  The a/a: transition zone in the Fens: speakers aged 45–65. 

Figure 22.5b  The a/a: transition zone in the Fens: speakers aged 15–30. 
positionings that one might expect given its borderland location in the South and/or the Midland. These issues of the role of identity at dialect borders are also currently being explored in work on the important political but also linguistic border between Scotland and England (e.g. Watt, Llamas and Johnson 2010).

5 Mobility

Largely since the turn of the century, the social sciences have been trying to fully come to terms with the implications of the mobile reality that Sheller and Urry (2006: 207) describe here:

All the world seems to be on the move. Asylum seekers, international students, terrorists, members of diasporas, holidaymakers, business people, sports stars, refugees, backpackers, commuters, the early retired, young mobile professionals, prostitutes, armed forces – these and many others fill the world’s airports, buses, ships, and trains. The scale of this travelling is immense.

Researchers are reassessing how mobilities have been theorized and how they can be placed more centrally in the social science enterprise. There has been much talk of a “mobility turn” and a “new mobilities paradigm” (e.g. Cresswell 2006; Cresswell and Merriman 2011; Urry 2000, 2007; Adey 2010). This section begins with a summary of the work of this new paradigm and an assessment of its implications for geolinguistic practice.

It has been argued that “mobility is central to what it is to be human” (Cresswell 2006: 1), and consequently “involve[s] how we form relations with others and indeed how we make sense of this” (Adey 2010: 19). Interaction is evidently being placed at centre stage in these motivations of mobility, as is clear also in Peters, Kloppenburg and Wyatt’s definition: “Mobility can be understood as the ordinary and everyday achievement of planning and organising co-presence with other people and with material objects such as tables, chairs and occasionally also cake” (2010: 349). For geolinguists whose data relies on interaction, then, such definitions suggest an inescapable role for mobility.

Adherents of the new paradigm have also argued that “social science has largely ignored or trivialised the importance of the systematic movements of people . . . The paradigm challenges the ways in which much social science research has been ‘a-mobile’” (Sheller and Urry 2006: 207). Cresswell has argued that the social sciences for too long have been gripped by a “sedentarist metaphysics”: “One of the principal ways of thinking about mobility in the modern western world is to see it as a threat, a disorder in the system, a thing to control . . . place is seen as a moral world, as an ensurer of authentic existence, and as a center of meaning for people. Mobility is often the assumed threat to the rooted, moral authentic existence of place” (Cresswell 2006: 26, 30).

This view of mobility-as-threat is one that has long pervaded dialectology. In traditional dialectology, mobility was seen as problematic because it apparently
blurred our ability to gain access to the historical trajectory of local nonstandard sounds, words and grammars. Ellis, for example, talking about the area around London, claimed that “the population is so shifting that it would be misleading to suppose that there was any real hereditary dialect or mode of speech. . . . the enormous congeries of persons from different parts of the kingdom and from different countries . . . render dialect nearly impossible” (Ellis 1889: 225, emphasis mine). Orton (1962: 15–16), outlining the informant selection criteria for the SED, reported that “preference was given to agricultural communities that had had a fairly stable population of about five hundred inhabitants for a century or so . . . newly built up localities were always avoided . . . dialect-speakers whose residence in the locality had been interrupted by significant absences were constantly regarded with suspicion”. Consequently, the “ideal” informants were the now-renowned NORMs – non-mobile old rural men (Chambers and Trudgill 1998). Despite the broadening of acceptable informant profiles that took place with the advent of sociolinguistic approaches to dialectology, a firm nativeness criterion remained. Young people, women and urban residents were now acceptable, but mobile people were not. Labov’s pioneering study of New York (1996 [2006: 110–111]) excluded those who had arrived after the age of eight. Calculations by Kerswill (1993: 35) suggest that excluding mobile individuals meant that “well over 50 percent of the original sample are excluded by various nativeness related criteria”. More recently, it has become evident, however, that examining non-local mobile members of the community can shed important light on the direction and social embedding of language change. Horvath’s (1985) work in Sydney explicitly engaged with the immigrant Italian and Greek populations, as well as the longer resident Anglo community. The Italian and Greek adults in her sample had all been born outside Australia and had arrived at roughly the age of 20 (1985: 48) with the Greek and Italian adolescents in her sample born locally. She argued that “the inclusion of migrants in the study proved to be rewarding in a number of ways . . . from one perspective the study . . . of Sydney can be seen as a description of how migrants enter into a speech community; the formation of a peripheral community by the first generation and then the movement into the core speech community by the second generation. The attendant effects on the speech community in general cannot be fully comprehended unless the peripheral community is included in the study” (1985: 174–175, emphasis mine). Fox’s (2007) work on the English of East London also highlights the important role that migrants can play in the diffusion of language change into the “native” community. She conducted an ethnography of linguistic variation in a youth club, attended largely by male and female adolescents from the local Anglo community, as well as by males from the local majority Bangladeshi community. Having observed the complex array of social network ties contracted among the members, she was then able to analyse the transmission of linguistic changes via these network ties within the club. Figure 22.6 shows the transmission of innovative [eɪ] variants of /ei/. Traditionally in London, /ei/ was realised with a lowered, somewhat backed nucleus – [ei]. The figure shows that the use of the innovative form is being led by older Bangladeshi boys, but is spreading to Anglo boys as well as the younger Bangladeshis. As yet, in these data
at least, the Anglo girls seem immune to this change. Later research in London has confirmed these patterns of change, with Anglos adopting not just this but also a number of other features from London’s large non-Anglo community (see, for example, Cheshire et al. 2011).

Dialectology has, of course, examined the linguistic consequences of other kinds of mobility in the last 25 years – see, for example, the extensive research on koinéisation, second dialect acquisition, and so on (Kerswill, this volume). Much of this dialect contact work has, however, focused on the consequences of “single significant acts” of mobility – for example, migration to New Zealand in the nineteenth century or indentured Indian workers in Fiji. Furthermore, it has, in general, tended to look at the ultimate consequences of that mobility, at the native-born in communities that emerged as a result of contact, rather than the consequences of “mobility-in-progress” – though there are some important exceptions here (e.g. the work of Gordon et al. (2004) and Trudgill (2004) on the formation of

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**Figure 22.6** [ei] variants of /ei/ among friendship networks in a London Youth Club. *Source:* Fox 2007: 192). KEY: Each speaker is represented by a circle; circled groups of speakers represent small friendship groups; the lines between the friendship groups mark intergroup network connections.
nineteenth-century New Zealand English). Such work also has not fully explored the effects, more subtle, but nevertheless important, of the everyday mundane mobilities of human routine behavior. These include commuting to work, moving to college, visiting family and friends, participation in the mobile tertiary sector of the economy, the mobilities that entail the consumption of goods and services, moving home and reliance on the car. They may indeed seem trivial, and of little long-term relevance to patterns of language variation and change. On the other hand, we must not underestimate their sheer scale and intensity. For example, between April 2000 and April 2001, one in every nine people in England moved home (Office for National Statistics 2005: 3), and we can expect that similar numbers moved in each subsequent year. In 1800, people in the US travelled on average 50 metres per day, but today it is 50 kilometres per day; at any one time, there are 360,000 passengers in flight above the United States (Urry 2007: 3–4).

Research has taught us that increased mobility has structural and geographical consequences for our social networks, with mobility-induced weak social network ties acting as the conduits for linguistic change from outside the community (Milroy and Milroy 1985). Urry (2007: 211–229) has argued, furthermore, for the increasing importance of weak ties in contemporary Western societies. One consequence of the expansion of weak ties is a relative delocalisation of our social networks from our immediate neighbourhoods, and this has well-known consequences for the maintenance of vernacular dialect forms (see Milroy and Llamas, this volume).

The dialect contact literature has tended to treat mobility as an all-embracing phenomenon leading to inevitable dialect homogenisation, yet we must also remember that mobility is socially differentiated: “the suggestion of free and equal mobility is . . . a deception, since we don’t all have the same access to the road” (Wolff 1993: 253). Since access to the road is uneven, so too will be the linguistic ramifications of it. Many of the dramatic mobilities of late twentieth century England, for example, commuting, counterurbanisation, engagement in higher education, tertiary sector employment, non-local consumption, car ownership, and so on, are disproportionately engaged in by the middle classes, and with consequent distinctive linguistic repercussions. Geolinguistic engagement with these “mundane” mobilities has been much more limited than with those of the one-off, life-changing kind (see Britain 2012b, for further detail, evidence and examples).

Another, perhaps even more fundamental, problem that emerges when questions of mobility are taken seriously is how we conceptualise the people and communities we record, analyse and ultimately theorise. Cresswell argues that “even when mobility has been at the center of geographical attention, it has been conceptualized through the lens of fixity as an ideal” (2006: 28). Evidence of such an idealisation of fixity is not hard to find in the linguistic literature – in the concentration on an idealised focused output of contact induced koineisation, in the fieldwork focus on NORMs as we saw earlier, but also, more basically, in how and where we capture the language behaviour of our informants and what we take them to represent. It is often the case that we:
a. prioritise optimal recording conditions over capturing human interaction in all its different mobile forms. Dialectological recordings are routinely conducted in informants’ homes over a beer or a cup of tea, rather than in the busy workplace, or walking down the street, or sitting on the bus talking on the mobile phone or driving the car to the supermarket. We know rather little about the patterning of variation and change when we are literally on the move, yet potentially, for example, the lack of (literal) face-to-face interaction that talk en route often entails could well have implications, for example, for the way turn-finality is variably marked phonologically;

b. analyse our informants as “representing” a place or a geographically circumscribed group, rather than as speakers who, in “being human”, move between important “moorings” such as home, work, the gym, the local store, mum’s house, and so on. We have often tended to study individuals as if they are still, or, as Crowe (1938) suggested, as if our central concern is with the distribution of “Homo Dormiens”. But even the non-mobile NORMs of traditional dialectology were mobile, in so far as they went to school, they went to the fields, and they probably ended up in the pub. They had to travel to buy beer and shoes and razorblades. But the data are presented from the assumption that the limits of their world were the dots on the map that mark their villages. Beyond rather decontextualised claims about the importance of communication densities in accounting for paths of diffusion or dialect boundaries, we tend to present the data from our informants also through a lens of fixity.

The mobilities paradigm is new, and is still grappling not only with the full repercussions of its theoretical stance toward the meaning of movement, but also with the methodological consequences of focusing on mobility rather than stasis. How do we study people window-shopping, driving to the mall, wandering around the anonymous airport, or hiking up a mountain? (Büscher, Urry and Witchger 2011; Fincham, McGuinness and Murray 2010). It is not surprising then that dialectology has not yet fully engaged with this new conceptualisation of mobility. The case below represents but one small step in this direction, by examining the impact of people’s routinised “time-space choreographies” in accounting for the location of dialect boundaries.

The persistence of dialect boundaries, like the Fenland ones presented earlier, needs to be accounted for. Of course, locally-driven explanations are necessary in each case, but, for the dialect transitions described above, I would argue that we can look to a combination of geomorphological, social, attitudinal, military, economic, political and infrastructural factors which have, over time, significantly moulded people’s mobilities and consequently their spatialities in this area (see Britain 2001). Before the mid-seventeenth century, this area was marshland, and presented a significant barrier to east-west communication, as well as a barrier to permanent settlement because of regular flooding, even on the somewhat higher ground (Darby (1931: 18). It also, in earlier times, presented a military boundary “to reduce contact and friction between [neighbouring peoples] which so often
produces hostilities” (Darby 1931: 59). The nature of the marshland, and lack of contact with the people, led to the area developing the reputation of a wild and inhospitable land inhabited by a wild and inhospitable people: “a mythical fear of a land inhabited by demons and dragons, ogres and werewolves” (Darby 1931: 61).

Even though drainage of the Fens began in the mid-seventeenth century, it was not completed until the early twentieth, and the centuries of drainage were often blighted by floods and by local sabotage. Today, although the Fens are drained, they are not politically unified, split across four different counties, two different regions, and even with one foot in the North and one in the South of England – a socioculturally extremely significant divide (e.g. Wales 2006). The Fens are peripheral in each county and each region, and the sparse population has led to infrastructural underdevelopment. East-west transportation links are still relatively poor. The area is even divided with respect to local television coverage: watching local TV on one side of the border will ensure that viewers hear and see nothing of the other side, and vice versa. The political boundaries (that partly coincide with the linguistic ones) are particularly significant for younger people because those near the county borders have to retreat well back towards the heartlands of those counties for schooling, especially at secondary level; pupils on the northern side of the border travel northwest; those on the (south) eastern side move further east. Schooling-enforced mobility can cause geographical divergence.

The institutional organisation of schooling and legal constraints on adolescent mobilities (between 9.00a.m. and 3.30p.m. they must be in one place, and often, because of the rurality of the district, quite some distance from their homes) significantly shape the peer groups within which borderland adolescents in this area interact, restricting and preventing contact across the border. Lincolnshire kids living near the border are socialised within the school, further from the border, as “(linguistic) Northerners”, and kids on the Norfolk side as “(linguistic) East Anglians”. And once adult, there is little to encourage regular border crossing. The border exemplified above is to a considerable extent shaped by centuries-old mobility patterns that have, for many reasons, both fossilised and been politically and infrastructurally institutionalised.

Focusing in at a more local level, to variables that are much more locally salient, we can see further evidence of this effect of the routinisation of mobilities. Figure 22.7a, Figure 22.7b, and Figure 22.7c show an area of the eastern Fens. In the east is the urban centre of King’s Lynn, and 14 miles (22 km) to the southwest lies Wisbech, a smaller town. Between the two lies a cluster of dialect boundaries, including the realisation of /au/: [ɛ:] in Wisbech, [ɛ] in King’s Lynn; the preservation (in King’s Lynn) or not (in Wisbech) of a “nose” [nʌz] /“knows” [nɔz] distinction; and third person present tense –s absence (in King’s Lynn) or presence (in Wisbech). This boundary has emerged partly due to the distance between the settlements (a distance that once felt much greater due to the Fenland marshes) and a relatively sparse population in the intervening rural areas, partly as a result of relatively poor infrastructural connections between the two towns (they sit in different counties, separated by a number of substantial rivers and drainage channels which have only been bridged in a few places), partly as a result of local
Figure 22.7a  The King’s Lynn–Wisbech functional zone in the Fens: the dialect boundary and the major roads, rail and waterways.

Figure 22.7b  The King’s Lynn–Wisbech functional zone in the Fens: population density.  
Figure 22.7c  The King’s Lynn–Wisbech functional zone in the Fens: the density of bus routes.
rivalries and negative stereotyping of each other’s residents, and partly as a result of the routinised geographies of everyday mobilities and interactions which residents in the intervening areas have mapped out for themselves, given these spatiality constraints. Villages to the west of the dialect boundary orient themselves to Wisbech for employment, services, entertainment, and so on, and villages to the east to King’s Lynn. Note how in Figure 22.7c these geographies are recreated by public transport provision. This boundary cannot be understood simply as motivated by physical spatial factors, nor by solely social ones – a whole host of factors combine (and are recreated by their spatial routinisation by locals) to account for the (rather narrow) transition zone for these variables. So, to understand these boundaries, we need to understand how people in the area move and have moved, the social meaning of that movement and how the mobile practices of the past help shape those of later times (see also Giesbers 2008; de Vriend et al. 2008).

Much more work is needed to understand the linguistic consequences of speakers on the move, both literally and through an understanding of how people’s mobilities help shape the language they use when we record them, sitting still, drinking beer or tea, in their homes.

NOTES

1 For a sociolinguistic example that illustrates the interdependency and evolution of these three forms of space, see Britain (2002).
2 Over time, critical appraisals of these two studies in the literature have highlighted their considerable differences. The Martha’s Vineyard study is often portrayed as an early, pioneering study that paved the way for subsequent so-called “third-wave” variation research, as opposed to the “first-wave” approach of the New York survey, because of its examination of the relationship between variation and very specific local social, historical and demographic factors on the island. It is also important for highlighting the complexity of variation and change in a rural area – see below.

REFERENCES

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People in the world today have become bi- or multilingual for a variety of reasons: as a result of longstanding inter-group relationships, or of immigration, or of political dominance by speakers of other languages. In virtually every country, members of linguistic minorities are bilingual, with one of those languages being a language of wider communication. In some, a majority of the population speaks more than one language. While contemporary social forces have led in some cases to language loss and a reduction of linguistic diversity, they have also produced a situation in which language contact is part of the social fabric of everyday life for hundreds of millions of people the world over.

The goal of this chapter is to review work in sociolinguistics devoted to understanding what happens to languages in intimate contact, that is, spoken by bilinguals. This review concentrates on research that, following Weinreich (1968), (i) takes the speech community, rather than the individual, as its angle of vision; (ii) focuses on the linguistic results of contact; and (iii) and seeks to elucidate the social structuring of diversity internal to the speech community. Given the enormous literature on languages in contact, it was not possible to do justice here to the more extreme results of contact in generating radically different language varieties, nor to the process of second language acquisition (SLA). Regrettably, I have had to omit consideration of pidgins and creoles (Mufwene 2008), mixed languages (Muysken 2000), contact languages (Wurm, Mühlhäusler, and Tryon 1996), and SLA (Bayley and Preston 1996).
A Sociolinguistic Perspective on Language Contact

From the beginning, a major goal of sociolinguistics was understanding speech communities characterized by language contact (Ferguson and Gumperz 1960; Gumperz 1964; Weinreich 1968). Far from conceiving of language contact as an individual enterprise, sociolinguists recognized that language contact is always the historical product of social forces. More recent studies of language contact have also been situated within a sociohistorical perspective that considers the historical and contemporary forces that have led to language contact.

Such a perspective is central to the important and influential work of Thomason and Kaufman (1988), who attribute to these sociohistorical factors a unique causal weight in determining contact outcomes. Lacking a quantitative perspective, however, they are forced to deny the importance of internal linguistic factors. In a major chapter, “The failure of linguistic constraints on interference,” they argue that “linguistic constraints on linguistic interference . . . are based ultimately on the premise that the structure of a language determines what can happen to it as a result of outside influence. And they all fail” (1988: 14–15).

The burden of Thomason and Kaufman’s argument is that, given enough social pressure, anything can happen language-internally, and they adduce examples in which suggested internal, structural constraints have been overridden. Sociolinguists have, understandably, been largely approving of the importance Thomason and Kaufman attribute to social constraints. However, their wholesale rejection of internal linguistic structure overstates the case. The cumulative weight of sociolinguistic research on language contact suggests that although perhaps “anything can happen” given enough social pressure, a blanket rejection of internal constraints is unwarranted: such internal constraints usually act jointly with external constraints in shaping language contact outcomes.

The variability found in bi- and multilingual speech communities is multidimensional, more extensive than that found in monolingual and majority-language communities (Meyerhoff and Nagy 2008), and characterized by speaker variation across continua of proficiency (Mougeon and Nadasdi 1998). Thus the description of a bilingual community involves more social parameters, more daunting inter-individual variation, and major sampling and other methodological problems.

The Sociohistorical Context

Language contacts have, historically, often taken place under conditions of social inequality resulting from wars, conquests, colonialism, slavery, and migrations – forced and otherwise – though more benign contacts and situations of relative equality are also documented. To what extent do social differences result in different linguistic outcomes? Thomason and Kaufman isolate two dimensions: the
first is the directionality of the influence, characterized in terms of speakers’ native language. They envision two alternative directions in which language contact can go, resulting in two distinct linguistic processes: borrowing and substratum interference. Borrowing refers to “the incorporation of foreign elements into the speakers’ native language” (1988: 21); substratum interference applies when the influence goes the other way, and native language structures influence the second language. Their second dimension sets up a scale of relative pressure of one group (one language) on the other. This schema neatly brings together the macro-level of the language and the micro-level of the individual speaker. Its tacit assumptions are (i) that individual speakers can be characterized in terms of native and second languages, and (ii) that communities, as collectivities of such individual speakers, are relatively homogeneous in this regard – or at least, that one can abstract away from differences internal to the speech community. Although sometimes these conditions may hold only tenuously, Thomason and Kaufman’s distinction between substratum influence and borrowing is a useful heuristic.

Sociolinguistic research has advanced by further exploring types of sociohistorical situations that have yielded different linguistic outcomes, and by systematically considering internal variability, including the quantitative analysis of linguistic constraints on the usage of bilingual speakers. Broadly speaking, two major social processes have produced contact situations of interest to linguists: conquest and immigration. Dominance of a language of wider communication has resulted both from conquest per se, and from the establishment of standard languages via institutions like universal elementary education, transforming local populations into linguistic minorities in a larger political unit. Slow language shift may mean many generations of bilinguals, providing ample opportunity for substratum influence to become established in the language towards which the community is shifting. Such situations of stable bilingualism are the most likely to lead to what Weinreich called “integration”: the acceptance of structures due to interference from the receiving language, and even to structural convergence and the Sprachbund phenomenon recognized in many parts of the world (Muysken 2008).

On the other hand, immigration has often led to rapid linguistic assimilation of newcomers. Borrowing into the immigrant languages is characteristic (Haugen 1970), but in so far as such immigrant varieties have been relatively short-lived, long-term effects have been slight. Moreover, the influence of immigrant languages on the language to which immigrants have shifted has also typically been modest, unless immigrant groups have been numerically dominant, or in a position to influence the norms of the wider community. A major variable here would seem to be the duration of contact.

Certainly, the details of many cases lead us to nuance any broad characterization of social differences. Though scholars differ on whether or to what extent various aspects of linguistic structure are affected by language contact, there is broad agreement, following Weinreich, that the locus of language contact is the bilingual speaker, and that the process of “interlingual identification” is at the heart of ensuing language change.
3 Linguistic Outcomes of Contact

The linguistic outcomes of language contact will be discussed in terms of four major domains. The first two of these constitute a privileged window of linguistic inter-influence: the phonetic/phonological level (Section 3.1), and the lexical level (Section 3.2). Members of groups with a common first and second language often find themselves introducing second-language lexical items into conversation with fellow bilinguals in their original first language. Such nonce borrowings (Weinreich 1968: 47) open the door to subsequent linguistic change, including later adoption or integration of these lexical items as loanwords, and ensuing phonological changes. Most of the studies reviewed in Section 3.1 indicate both alterations in the phonology of the borrowed words, and subsequent adjustments in the phonology of the recipient language. The introduction of foreign lexical material may carry morphological and syntactic baggage as well, and serve as a source of syntactic change (Section 3.3) in the recipient language. Pragmatics and discourse will be dealt with in the same section, because of the intimate relations between interlingual identification at the discourse level in bilingual linguistic usage, and subsequent developments in syntax. Finally, Section 3.4 deals with morphological and semantic consequences of language contact, including the question of grammatical categories, a topic intimately related to morphology.

3.1 Phonology

Van Coetsem (1988) enunciated a general theory of loan phonology based on a binary distinction compatible with that proposed in the same year by Thomason and Kaufman. Van Coetsem, like them, regards agency as primary. His term “phonological borrowing” is parallel to “borrowing” in their work, that is, native speakers of the recipient language import into their language something from another, source language. The obverse of this, analogous to Thomason and Kaufman’s notion of substratum interference, is called “imposition” (1988: 11), occurring when foreign language speakers impose their own first language (L1) phonological habits on their second language (L2). Though few researchers have adopted this label for the process, the distinction is widely accepted.

3.1.1 Substratum influence Phonological interference from the L1 substratum is overwhelmingly observed among L2 adults (Major 2001; Hansen and Lampini 2008), and “age of arrival” is the major factor in this influence. For example, age of beginning English acquisition was the major factor in accounting for Spanish-influenced phonology in McDonald’s (1996) study of two groups of Cuban-American high school students in Miami. Lee (2000) found only partial acquisition of the American-English flapping rule among Korean immigrants in Philadelphia who had arrived as adults. Adamson and Regan (1991) found that among Vietnamese and Cambodian immigrants variation in the unstressed (-ing) suffix of English showed partial acquisition of majority community stylistic variation, as well as non-native patterns.
If rapid language shift occurs, the contact situation obviously does not continue and thus there is no long-term substratum effect of immigrant language phonology. Both Lee’s and McDonald’s studies indicated that immigrant language influences tended to disappear in subsequent generations, as immigrants’ descendants became native speakers of the majority language. Lee’s research showed that even immigrants who arrived as children were indistinguishable, in terms of flapping, from the native-born.

Several studies of contemporary immigrant groups, however, document some continuing substrate influence of original immigrant languages on the speech of their descendants. Santa Ana’s (1996) quantitative study of (t,d) deletion among 45 English-speaking Chicanos in Los Angeles found sonority effects in adjacent preceding and following syllables, and also established that syllable stress does not influence deletion—both effects differing from those observed among non-Hispanic native English speakers. Fought (1999) found that second-generation adolescents in Los Angeles with strong Mexican-American peer group ties preferred a backed [u] in English, whereas those without such ties participated in the u-fronting typical of the Anglo community. Studying Italian immigrants who had arrived in Canada in early childhood, Flege, Munro, and MacKay (1995) discovered that for those who spoke Italian on a regular basis, their pronunciation of English consonants could be distinguished from that of native-born English speakers. Sociolinguistic studies of third- and fourth-generation descendants of immigrants have shown remarkably few effects attributable to a history of language shift. Labov (1994), however, reported that Philadelphians of Italian ethnicity showed a strong conservative tendency with respect to the /o/-fronting that is typical of the city as a whole, a result that parallels Fought’s report on second-generation Mexican-American Angelenos. (On ethnicity, see Fought, this volume.)

With substrate-influenced phonology so rare even among direct descendants of immigrants, it is relatively rare to find language shift identified as a putative source for regional features. The exceptions tend to occur where descendants of an immigrant group have become a local majority population, often geographically isolated. On the basis of interviews with elderly bilinguals, Lance (1993) suggested that the northern dialect phonology found in an area of eastern Missouri that is otherwise in the South Midland dialect region resulted from heavy German settlement. Herold (1997) attributed the emergence of the cot/caught merger in the former coal mining towns of eastern Pennsylvania to substantial Polish and other non-German immigration at the beginning of the twentieth century. Similarly, Dinkin (2011) demonstrated that towns with early Dutch settlement in upstate New York are more resistant to the spread of Northern Cities dialect features into the area, in contrast to towns first settled by English speakers from Western New England.

Contrasting with cases resulting from language shift by immigrants are those characterized by the incursion of standard languages into areas where they were not previously spoken. Significant language shift among the Cajun French population of Louisiana occurred only long after the language contact that started early in the nineteenth century. Dubois and Horvath (1998) document stops (attributable
Contact to the French substrate) as frequent phonetic variants of interdental fricatives in Cajun English. Native speakers of Québécois French, also with a long history of English contact, are described as hypercorrecting in their use of initial-\(h\) words in English (Auger and Janda 1992). In contrast, Bayley’s (1994) study of \(t/d\) deletion in Tejano English in San Antonio, Texas, showed no effect attributable to Spanish among adult speakers (for example, as in mainstream English dialects, retention was categorical after \(r\)). However, his sample of 25 speakers under age 21 was similar to the Los Angeles population of Santa Ana’s study in the absence of a stress effect.

A similar result has occurred in postcolonial situations where many speakers of local languages also speak languages of wider communication. Thus Muthwii (1994) documented a case of trilingual Kenyans transferring vowel harmony, stress, and pitch patterns from their native Kalenjin into Kiswahili and English.

### 3.1.2 Borrowing

Many studies document the influence of the receiving language on the phonology of borrowed words. Authors differ, however, in identifying the process involved. In a study of French loanwords in Fula, Paradis and Lacharité (1997) attributed this influence to recipient language phonology (looking at the process from the angle of speech production). They found that speakers with varying degrees of bilingualism adapted the foreign phonological sequences of loanwords according to what they call “repair strategies,” including the breaking up of consonant clusters and the denasalization of French nasal vowels. On the other hand, Peperkamp, Vendelin, and Nakamura (2008) stress difficulties of perception on the part of speakers of the receiving language, resulting in phonetic approximation. Studying the phonology of bilinguals in Québécois French, Friesner (2009) argued that both types of process contribute to the variation in the pronunciation of \([r]\) and \([h]\) in loanwords from English and Spanish. Coetser (1996) reported that Afrikaans names borrowed into Xhosa during several centuries of contact have only been partially assimilated phonologically, as was found by Stenson (1993) in research on borrowings from English into Irish. Studying phonological variation in English borrowings like \(llama, pasta,\) and \(tobacco,\) where the “foreign \(a\)” must be assimilated either to the regular “short-\(a\)” (\(\text{TRAP}\)) class or to the “broad \(a\)” (\(\text{BATH}\)) class, Boberg (2009, 1999) found that the longer a word has been in English, the more likely it is to have migrated into the “short \(a\)” class, subject to dialect differences and phonological constraints.

Sometimes phonological changes appear despite the existence of more similar segments across donor and borrowing languages. Naim (1998) reported that although Beirut Arabic contains non-pharyngealized consonants, consonants in loan words from Italian and French are pharyngealized before long low vowels, apparently due to speakers’ identification of the vowels in these foreign words with the local allophone of Arabic \(/a/\) that occurs after pharyngeals.

If no speakers from the receiving language ever became fluent in the source language, the influence of the receiving language might be more universal (as monolinguals began adopting items introduced by bilinguals, progressively imposing native phonological patterns). Nevertheless, most studies report only
partial phonological adaptation of loanwords. Some foreign pronunciations are retained, becoming a source of phonological innovation in the receiving language. Partial phonological assimilation of loanwords has been documented for many cases, including Spanish loanwords in four Mayan languages (Penalosa 1990), and English loanwords in Italian (Socanac 1996) and Spanish (Otheguy 2010). Uffmann (2006: 1069) explained the “high amount of variation both across and within languages” in loanword phonology in Shona, Sranan, Samoan and Kinyarwanda in an optimality-theoretical framework, following Itô and Mester (1995), an influential paper that has inspired dozens of formal studies of this phenomenon.

Lack of phonological assimilation of loanwords appears to be rare, or at least is infrequently reported. Oswalt (1985) reported unassimilated English-origin words in Kashaya, a Native American language of California, which allowed speakers to reject their status as borrowings (in contrast with phonologically assimilated borrowings from Spanish). Some papers explicitly deny the existence of phonologically unassimilated loanwords. Bergsland (1992), describing Scandinavian loanwords in Southern Sami (or Lapp), a Finno-Ugric language, attributed their total phonological assimilation to community members’ active resistance to outside influences.

3.1.3 Borrowings or substratum influence? Cases of long-term co-territoriality

Studies of populations that have shared a territory for a long time, where long-term bilingualism has been the norm, are more difficult to categorize. Though the cases discussed appear to fall on the “borrowing” side, the processes involved are less clearly determinable than in the studies reviewed so far.

Nagy’s (1994) research on Faetar, an isolated dialect of Francoprovençal spoken in a mountainous area of southern Italy, presents such a case. Faetar’s geminate consonants, apparently borrowed from Italian, occur in native Faetar words as well as in Italian loanwords, attesting to a thorough nativization of the phonological process.

In the Semitic language Maltese, long contact with Sicilian and Italian has resulted in complete phonological integration of vocabulary, amounting to approximately 25 percent, from those languages (Krier 1980). This contrasts with English loans, which are not phonologically assimilated. Ozanne-Rivierre (1994) reports that the Polynesian Outlier language Fagauvea, spoken on the island of Uvea, has evolved a nine-vowel, 27-consonant system due to contact with the Melanesian language Iaai, and that the direction of influence is almost uniquely from Iaai (the pre-existing language) to Fagauvea (the immigrant language). The reverse process has apparently occurred in the Philippine language Sama Abaknon, which, under the influence of several centuries of domination by Visayan, has reduced its vowel inventory from six to three (Jakobson and Jakobson 1980).

3.2 Lexicon

The major process involved in language contact is lexical borrowing. In most situations, borrowing occurs mainly on the part of minority language speakers from
the language of wider communication into the minority language. Much less common are instances of words accepted within majority language communities that derive from language shift by various immigrant groups and thus clearly fall under the definition of “substratum influence.” For example, Yiddish-origin words known to a majority of the non-Jewish students in my classes at the University of Pennsylvania include *shtick* and *tush*. However, studies of this phenomenon are rarely reported, and only borrowing will be dealt with here.

3.2.1 Borrowing  Among many studies on lexical borrowing, two that provide a sound sociolinguistic basis for clarifying the relationship between individual bilingual speakers and community-level patterns are Mougeon and Beniak (1991) and Boyd (1993). Though “non-core” or “cultural” borrowing has long been accepted as a usual concomitant of language contact, Mougeon and Beniak make a rare study of the social underpinnings of the replacement of core L1 vocabulary in a minority language by lexical borrowing from the majority language (here, English in a Francophone enclave of Ontario). Boyd’s corpus-based study is important because it compares two groups of bilingual immigrants in the same host speech community: American-English and Finnish speakers in Sweden. Boyd found that Swedish incorporations into Finnish were more readily identifiable as borrowings, whereas those into English more closely resembled code-switching – the starting point for much recent research on lexical borrowing.

Indeed, the status of foreign lexical elements in the everyday discourse of bilinguals has been one of the most carefully researched areas in the entire field of language contact. Research into nonce borrowings began as part of the larger study of code-switching, an obvious point of departure since the well-documented ability of bilinguals to draw on lexical items from both their languages can reasonably be considered the source of lexical borrowing.

Much of the early work on the grammatical constraints on code-switching was devoted to the problem of distinguishing single word code-switches from borrowings. This seemed all the more pressing, given that “[i]n virtually all bilingual corpora empirically studied, mixed discourse is overwhelmingly constituted of lone elements, usually major-class content words, of one language embedded in the syntax of another” (Poplack and Meechan 1998: 127). Further, such words (particularly nouns, verbs, and adjectives) are the most likely to be borrowed (van Hout and Muysken 1994). This consonance between switching and borrowing made it abundantly clear that switching was the royal road to borrowing (Poplack, Sankoff, and Miller 1988; Heath 1990). However, most researchers were reluctant to label every single-word “switch” they observed as a borrowing, especially in the absence of community-wide ratification or legitimation. Various criteria were invoked in attempting to separate the legitimate, or legitimated, loan words from the nonce borrowings or switches. These included phonological or morphological integration, as well as attestations of use by a wider community of speakers, but all seemed unsatisfactory given the variability in the data (e.g. many such words are found to be partially phonologically integrated, so that phonological integration cannot constitute a litmus test).
A significant breakthrough in resolving the question of single-word tokens as “switches” vs. “borrowings” was made by applying quantitative sociolinguistic methodology to corpora of spontaneous bilingual discourse. Poplack and Meechan (1998) analyzed bilingual discourse as having five major observable components: (i) unmixed L1; (ii) unmixed L2; (iii) multiword alternations (readily understood as code switches); (iv) attested loanwords; and (v) ambiguous lone items. Of these, only the ambiguous lone items are problematic. The methodological innovation was to statistically compare the patterning of these items with analogous, identified items in the same corpus. As applied to the Turkish Cypriot community in England, for example, this consists of comparing the lone noun, in Turkish or in English, “in contexts in which it is surrounded by the other language” (Adalar and Tagliamonte 1998: 139) with its appearance in a multiword fragment in either language. In five different language pairs, this technique was applied successfully to resolve the code-switching/borrowing question. The progression that exists between individual, nonce-borrowed items (testifying to the productivity of other-language access for the individual bilingual speaker), and the social ratification of borrowings by the community, can thus be studied independently of the muddy waters of code-switching. In my opinion, this development has for the first time put the study of lexical borrowing on a sound methodological and theoretical footing.

3.3 Syntax and discourse/pragmatics

Whether or not syntax can be borrowed at all is still highly problematic. Although Thomason and Kaufman’s view has proponents (e.g. Campbell 1993), many students of language contact are convinced that syntactic borrowing is impossible or nearly so (e.g. Prince 1988; King 2000). These authors generally envisage grammatical change subsequent to contact as a consequence of lexical or pragmatic inter-influence, that may then lead to internal syntactic change; hence the combination of syntax and discourse/pragmatics here.

Four lines of explanation have been proposed regarding the chains of events that can lead to contact-induced syntactic change. The first derives from the type of phonological changes reviewed in Section 3.1.2 above, attributable in the first instance to substratum influence. The second, variously described as “camouflage” (Spears 1982), “covert interference” (Mougeon and Beniak 1991), and “normative assimilation” (Wald 1996), appears to be a syntax-internal contact process also related to substratum influence. Third, in a related line of work, several studies have traced a discourse-to-syntax path in bilingual inter-influence, also apparently more characteristic, though not perhaps uniquely so, of substratum influence. The fourth derives from lexical borrowing.

3.3.1 Substratum influence As in phonology, the study of second-language acquisition in syntax is of considerable interest in locating potential areas of influence from speakers’ L1. However, scholars of L2 acquisition have been less willing to attribute non-target-like syntax to an L1 source, also giving considerable weight
to the influence of universals. Studies of the acquisition of French as a second language (e.g., Hawkins, Towell, and Bazergui 1993) have considered both lines of explanation. One reason for caution in adducing contact sources for syntactic change is that markedness is often less clear in syntax than in phonology, and internally motivated change is often as likely, and more parsimonious, an explanation.

The consequences of contact-induced phonological change may be far reaching, extending to morphological and even syntactic domains. For example, Kroch and Taylor (1997) postulate a train of events beginning with contact-induced phonological change on the part of Scandinavian invaders that resulted in the “impoverishment of agreement morphology” in the Northern and East-Midland dialects of Old English. This in turn prevented V-to-I movement and led in these dialects to the development of the CP V2 structure typical of the modern Scandinavian languages.

The immigration of large numbers of L1 Yiddish speakers to the United States in the early twentieth century resulted in language shift that produced substratum effects in the English of their descendants. Prince (1988) analyzed the “Yiddish movement” (Y-movement) construction as a discourse level example of Yiddish influence on English. The syntax of Y-movement is identical to pre-existing focus-movement constructions in English; the change involves a widening of the pragmatic domain in which these constructions can be used to a context in which the moved noun phrase is not previously salient in the discourse. Though Prince dubbed this process “borrowing,” a prescient footnote states: “Intuitively, one may thus call the Yiddish-Movement case an instance of ‘interference’ rather than borrowing” (Prince 1988: 516). This is exactly the type of case that both van Coetsem and Thomason and Kaufman would understand as substratum interference, arguments unavailable to Prince since they were published in the same year as her paper.

Sociolinguistic research on contemporary language contact situations has carefully traced the differential usage patterns among bilinguals that provide a path for often subtle contact effects. Mesthrie and Dunne (1990) set out a continuum of varieties in English relative clause types in South African Indian English, with continuing influences of substratum even among English-dominant speakers. Wald (1996), studying Mexican Americans’ use of would in east Los Angeles, formulates two principles governing bilingual usage: (i) “normative assimilation” (not violating the grammatical norms of the socially dominant language) and (ii) “shortest path” (selecting the norms of the socially dominant language that most closely correspond to those of the prior language). He argues that the operation of the general English modal/stative verb interaction in this dialect is weaker in hypothetical contexts, since Spanish provides no basis for it.

Perhaps the most fertile ground for features of substratum origin to become established in the speech community as a whole is found among local groups whose language shift has taken place over a long period of time. However, careful studies of such situations have often cautioned against premature conclusions of substratum influence, first, because other sources may turn out to be historically
correct; and second, because descriptions of contact varieties may be descriptions of L2 speakers, not of stable bilingual or L1 speech. Escobar (1995), for example, found that many of the features of “Andean Spanish” in fact hold only for L1 speakers of Quechua and Aymara who have limited proficiency in Spanish. Other studies, however, have confirmed substratum influence despite initial authorial skepticism, as in Harris (1991). Harris cites data from an unpublished 1982 thesis by Markku Filppula as a convincing demonstration of an Irish Gaelic substrate source for the “informative-presupposition” it-clefts in Irish English. Harris notes that “quantitative differences confirm the existence of a post-contact continuum with the most markedly nonstandard varieties displaying a greater degree of substratal input than intermediate varieties which have undergone varying degrees of convergence towards the superstrate” (1991: 201). Lastly, Mithun (1992) traces a discourse-to-syntax path in documenting the often subtle influence of Eastern Pomo on the English spoken by members of several communities in northern California, including the use of pronouns and of the definite article, as well as clause-linking strategies.

### 3.3.2 Borrowing

What about the immigrant or minority languages themselves? What are the effects of borrowings brought back into the erstwhile L1 by its speakers who have become bilingual in the majority language? Here we face the question of “structural borrowing,” a notion criticized by King (2000) for vagueness, lack of precision, and/or lack of detailed evidence or analysis in scantily documented cases frequently referred to in the literature. There is, however, a growing body of research that goes farther than hand-waving or invoking isolated surface parallels.

King’s (2000) detailed study of Prince Edward Island French described numerous morphological and syntactic differences from other French varieties, including the incorporation of many borrowings from English. Based on her analyses of the introduction of English back parallel to the French re- morpheme, of preposition stranding, and of the borrowing of English wh-words with ensuing changes in relative clauses, King concludes that “the influence of English on PEI French . . . has been essentially lexical,” and that these lexical innovations “have triggered particular language-internal changes, resulting in the emergence of a number of structural changes in PEI French” (King 2000: 173). In Montreal, substrate-related linguistic influence could be argued for the dramatically increased use of comme “like” as a discourse marker for Anglophone speakers of French, but this appears to be true of young native speakers as well (Sankoff et al. 1997).

Prince (1988) examined the apparent modeling of Yiddish dos-initial sentences on Slavic eto-initial sentences. Her clear and persuasive exposition documents a case of pragmatic, not structural, borrowing from Slavic: “While the syntax of dos-sentences was native to Yiddish, the discourse function associated with them was clearly a Slavic borrowing” (1988: 511).

Two further studies linking discourse and syntax are Matras (1998) and Fortescue (1993). In a comparative study of “utterance modifiers,” Matras explains their frequent borrowing from the pragmatically dominant language by minority group
members as being related to the “cognitive pressure” they experience to “use the dominant language’s resources for situative discourse regulation.” Studying word-order changes in West Greenlandic Eskimo, Fortescue attributes some of these to diminished competence in the minority language by younger, majority-language-dominant speakers.

3.4 Morphology/grammatical categories

Bound morphemes have long been regarded as highly resistant to contact-induced change. After reviewing the literature, I am more convinced than ever that this is true. Only a few cases came to light, and almost all involved morphemes that are, if not entirely free, not really bound either. The other type of case to be reviewed here concerns grammatical categories.

3.4.1 Substratum influence In the mid-twentieth century, the massive migration of foreign workers into northern European countries, where most languages have relatively rich inflectional morphology, has led to a fertile field of investigation into the new varieties of these languages as spoken by immigrants and their children. However, documenting substratum influences on morphological regularization is more difficult, given that similar results can be explained by, for example, universal processes of simplification. In historic times, language shift by the large numbers of Scandinavians involved in the Norse invasion of England, and the intimacy of their contacts with the pre-existing population, led to the borrowing of the third person plural pronouns with initial th-forms into English, after a period of competition with the English h-initial forms in the thirteenth century (Morse-Gagne 1988).

Dede (1999) documents the use of an ablative postposition in the Xining dialect of Chinese, which he attributes to the fact that the original inhabitants of the region were speakers of Monguor, a Mongolian language, who shifted to Chinese.

Two further studies would also be potential candidates for a “borrowing” explanation, since they concern changes in minority languages that may be modeled on the majority language. Silva-Corvalán (1994), on Los Angeles Spanish, and Poplack (1997), on Ontario French, both studied reduction in use of the subjunctive. Silva-Corvalán concluded that internal tendencies toward reduced use of the subjunctive are strengthened in the language contact situation. Poplack, however, found that higher levels of bilingual ability favored the use of the subjunctive, concluding that language shift and convergence are not necessary consequences in a minority language situation.

3.4.2 Borrowing Elements of borrowing, as well as substratum influence, can be seen in a few of the rare cases of morphological changes due to contact described above. More common are cases of the adaptation of lexical borrowings to the morphological categories of the receiving language. For example, borrowing nouns into languages with gender or noun-class systems necessarily involves a reconfiguration of the borrowed material into new categories. Among many recent studies on gender assignment of loanwords, Montes-Alcala and Lapidus Shin
(2011) found that the gender of nouns borrowed into Spanish sometimes differed in spoken and written registers. Pasch and Strauch (1998) discovered animacy to be a major factor in class assignment of German words borrowed into Swahili. Bokamba (1993) showed that the transformation of a pre-existing language into a lingua franca may result in morphological simplification even when very similar category systems exist in the native languages of the multilinguals involved. KiTuba, Kinshasa LiNgala, and Shaba KiSwahili deviate from their respective source languages in their simplification of the noun class morphology.

4 The State of the Art

This review has sampled work on languages in contact, largely from a sociolinguistic and quantitative perspective, in an attempt to deal with the major outstanding issues regarding the linguistic consequences of bilingualism.

The three major questions I have addressed are as follows: (i) To what extent do social distinctions of the kind made by van Coetsem and by Thomason and Kaufman constitute a useful angle of vision in differentiating the linguistic phenomena? (ii) Does the idea of a cline of “borrowability” stand up to scrutiny? (iii) What is the relationship between the individual bilingual speaker (central to the concerns of SLA) and the speech community (of primary importance in sociolinguistics)?

4.1 The social embedding of language contact

Looking at the varying social circumstances of language contact separately according to the various domains of linguistic structure, it is clear that these circumstances have a differential effect. The distinction between borrowing and substratum interference with language shift, made so forcefully both by van Coetsem and by Thomason and Kaufman, holds up very well in general. These different social circumstances do not, of course, have a direct effect on language; rather, they lead groups of individuals to differentially deploy their linguistic resources, and thus in turn affect developments at the level of linguistic structure.

4.2 A cline of borrowability?

Though most language contact situations lead to unidirectional linguistic results, conditioned by the social circumstances, it is also true that linguistic structure conditions the linguistic outcomes. Morphology and syntax are clearly the domains of linguistic structure least susceptible to the influence of contact, and this statistical generalization is not vitiated by a few exceptional cases. On the other hand, lexicon is the most readily borrowable element, and borrowing lexical items can lead to structural changes at every level of linguistic structure (Muysken 2000). Phonology is very susceptible to change, as can be seen from studies that document the influence of recipient-language structure on foreign borrowings, as well as long-term influence on the phonology of the recipient language.
4.3 The individual and the community in language contact

Language change presupposes diffusion from individuals or smaller groups to the speech community as a whole, and this applies to language contact every bit as much as to internal linguistic change. This review has not focused directly on the question of diffusion, but it is clear that individual strategies, individual practices in bilingual discourse, add up to community-level change. Thus the massive SLA literature, the question of the critical period, the question of linguistic change across individual life spans and how it interacts with language change in general—all are relevant to the linguistic outcomes of language contact. In my view, the reintegration of the individual into the overall matrix of the speech community and the evolving languages represents the greatest challenge and the greatest scope for advancement in the research of the next decade.

NOTES

1 For economy, I use bilingual/bilingualism as cover terms to include also multilingual/multilingualism.
2 For a comprehensive recent book-length treatment, see Winford (2003).
4 Space prohibits reviewing the literature on the formal linguistic constraints that condition switching, which grammatical sites accept or constitute barriers to switching, and the utility of postulating a matrix language in the formal model of code-switching (cf. Myers-Scotton 1993).
5 Campbell (1993) nuances his support for this position as follows: “I conclude with Thomason & Kaufman (1988: 14) that ‘as far as the strictly linguistic possibilities go, any linguistic feature can be transferred from any language to any other language.’ This being the case, it is safer to think of these proposed universals and principles of borrowing as general tendencies, and not as absolute constraints” (1993: 104).
6 An example of Yiddish-Movement from Philip Roth’s Portnoy’s Complaint (Y-moved constituent underlined): “In less than a week it’s Rosh Hashana and he thinks I should take a vacation. Ten people I’m having” (cited in Prince 1988: 512).
7 That individual differences in orientation to other language groups are relevant here is evident from Poplack’s (1978) early study of how Puerto Rican immigrant children in Philadelphia differentially deploy phonological variants typical of White vs. Black Philadelphians.

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Koineization is a contact-induced process that leads to quite rapid, and occasionally dramatic, change. Through it, new varieties of a language are brought about as a result of contact between speakers of mutually intelligible varieties of that language. Koineization is a particular case of dialect contact (Trudgill 1986). Typically, it occurs in new settlements to which people have migrated from different parts of a single language area. Examples of koines (the outcomes of koineization) include the Hindi/Bhojpuri varieties spoken in Fiji and South Africa, and the speech of “new towns” such as Høyanger in Norway and Milton Keynes in England. In some cases, the koine is a regional lingua franca which does not replace the already existing dialects. Related to koineization are regional dialect leveling and dedialectalization. As we shall see, it can occasionally be difficult to distinguish koineization from either of these other cases of dialect convergence.

1 Regional Koines, Immigrant Koines, and Regional Dialect Leveling: Some Definitions

The term “koine” (whose Greek meaning is “common”) was first used to refer to the form of Greek used as a lingua franca during the Hellenistic and Roman periods (Siegel 1985: 358; Bubenik 1993). The Koine arose as a mixed variety among ordinary people in the Peiraiaeus, the seaport of Athens, which was inhabited by Greeks from different parts of the Mediterranean (Thomson 1960: 34, quoted in Siegel 1985: 358). The Koine was not a new vernacular, but a compromise variety used for communication between speakers of other Greek varieties as a lingua franca. The Koine was characterized by reduction and simplification.
(Siegel 1985: 358). Reduction here refers to “those processes that lead to a decrease in the referential or non-referential potential of a language” (Mühlhäusler 1980: 21), involving, for example, a reduced vocabulary or fewer stylistic devices. Simplification refers to “either an increase in regularity or a decrease in markedness” (Siegel 1985: 358, quoting Mühlhäusler). In practice, this means a decrease in irregularity in morphology and an increase in invariable word forms (Mühlhäusler 1974, cited in Trudgill 1986: 103), to which can be added “symmetrical paradigms; fewer obligatory categories marked by morphemes of concord [such as gender]; and simpler morphophonemics” (Trudgill 1986: 103). Trudgill also cites the reduction in the number of phonemes as a simplification (1986: 105).

In the case of koineization (rather than pidginization), the distinction between reduction and simplification turns out to be hard to draw. Tuten (2001: 326) claims that reduction in Mühlhäusler’s sense should not be seen as a component of koineization, since it is a consequence of the “extreme structural reduction” of pidgins, which makes communication difficult without gesture and knowledge of the context. Reduction also follows from limited linguistic input (Tuten 2001: 327) in a way that is not usual for most koinés. Tuten in fact equates simplification with a more limited form of reduction: “simplification understood as the limited reduction in inventories and rules” (Tuten 2001: 328).

Siegel’s (2001) definition of a koine is a useful, quite general, reference point:

A koine is a stabilized contact variety which results from the mixing and subsequent levelling of features of varieties which are similar enough to be mutually intelligible, such as regional or social dialects. This occurs in the context of increased interaction or integration among speakers of these varieties. (Siegel 2001: 175)

By contrast with the original Greek *regional koine*, a new dialect in a new settlement is an *immigrant koine*, which, once established, becomes the vernacular of the new community. These will be the main focus of this chapter.

Also resulting from dialect contact we can observe, at a broader geographical level, *regional dialect leveling* (Kerswill 2003), or *supralocalization*, which “are the terms used to label the process by which, as a result of mobility and dialect contact, linguistic variants with a wider socio-spatial currency become more widely adopted at the expense of more locally specific forms” (Britain 2010a: 193; Hickey, this volume). Regional dialect leveling leads to a reduction in differences between dialects and hence a gradual homogenization of the vernacular speech of a region. For example, in many parts of Italy new regional varieties have emerged, usually centered on a city. Linguistically, they are a compromise between a number of local dialects and the standard language. Some scholars, such as Sobrero (1996: 106) and Berruto (2005: 84–86), refer to these as “koines,” a use of the term which has some justification since the Italian koines do not necessarily supplant the local dialects, and are thus regional koinés.

The Italian case raises an important question: Can we distinguish between the role of the standard language and the role of face-to-face contact in dialect change? Loss or attrition of localized features in favor of standard features may be an
example of dedialectalization, a process which, unlike koineization and regional dialect leveling, does not entail face-to-face contact. In cases where the new, leveled forms coincide with the standard, the two processes (dedialectalization and koineization/leveling) will have similar effects and are not clearly distinguishable. The Italian case is likely to involve both. In any case, dedialectalization does not always lead to the adoption of standard features, but those with a wider regional currency. A possible example of this is the adoption of general northern English [eː] and [oː] for [iə] and [oʊ] in words of the FACE and GOAT classes, as reported by Watt and Milroy (1999). Although these authors discuss this change in terms of dialect leveling, it seems likely that an attitudinal factor is at least as important a motivation: Watt’s (1998: 7) statement that, in adopting the monophthongal variants, speakers aim to “dispel the ‘cloth cap and clogs’ image” suggests not a contact explanation, but an ideological, attitudinal one. Clearly both factors are at play. (See Hinskens, Auer, and Kerswill (2005) and Trudgill (2002: 29–32) for fuller discussions.)


2 Outcomes of Koineization: “New Dialects”

We will be concerned mainly with immigrant koines, or, to use Trudgill’s term, new dialects (Trudgill 1986: 83; 2004). According to Trudgill (1986: 127), koineization is composed of three processes: mixing and leveling, as well as simplification. Mixing simply involves the presence of features from different input varieties. Leveling refers to “the reduction or attrition of marked variants” (Trudgill 1986: 98; emphasis in original). “Marked” may refer to features which have a limited geographical distribution in the country of origin (a criterion familiar from our earlier definition of regional dialect leveling), or else are socially marked in some way, or which are in a minority in terms of the dialects that have been transplanted to the new territory (Trudgill 1986: 98–107, 2004).

Koines also often exhibit what Trudgill terms reallocation: “Reallocation occurs where two or more variants in the dialect mix survive the levelling process but are refunctionalised, evolving new social or linguistic functions in the new dialect” (Britain and Trudgill 1999: 245; cf. Trudgill 1986: 110). We turn now to the first of our examples.

One of the major population movements of the late nineteenth and early twentieth centuries was the shipment of people from the Indian subcontinent to work as indentured laborers in the European colonies (Mesthrie 1993). This resulted in new varieties of Indian languages, particularly Bhojpuri, being established across a wide region ranging from the West Indies and the Caribbean to South Africa (Mesthrie 1992) and Fiji (Siegel 1987; Moag 1977).
Table 24.1 illustrates the mixed nature of the koine known as Fiji Hindi in one area of its grammar. The form egā clearly comes from Braj; in fact, it appears to be a compromise between the various forms available in Braj – an example of what Trudgill (1986: 62) calls an interdialect form. The form ī presumably comes from Bhojpuri or Avadhi. The manner in which variants have been selected from the range of possibilities provided by the input dialects is an example of leveling. At the same time, the table shows extensive simplification, involving the loss of distinct suffixes for the first and second persons singular and plural, the third person singular and plural, and a failure to adopt the gender distinction in the second person found in one of the contributing dialects (Bhojpuri). A gender distinction in verb morphology is functionally redundant, and it is not surprising that it is lost from overseas Hindi/Bhojpuri varieties generally, including those in South Africa (Mesthrie 1993: 40), Fiji (Siegel 1997: 113), and Mauritius (Domingue 1980, 1981, cited in Trudgill 1986: 109).

While this simplification can be related to the special conditions of language acquisition in a mixed, or “unfocused,” speech community (Le Page 1980), there is one example of simplification or, perhaps better, reduction (in Tuten’s sense) that seems to stem directly from the threatening situation the indentured laborers found themselves in. Mesthrie explains:

The same [i.e. reduction] is true of the feature “respect,” which is manifested systematically in Indic languages in verbal and pronominal paradigms. It seems this feature did not survive the koineization process in Natal, for there is no systematic morphological way of signaling respect in SB [South African Bhojpuri]. Power relations between interlocutors once indexed by pronominal usage must have given way to the expression of solidarity on the plantations. (Mesthrie 1993: 40)

This is a very clear indication that, for a koine to form, the speakers must waive their previous allegiances and social divisions to show mutual solidarity. The

<table>
<thead>
<tr>
<th></th>
<th>Bhojpuri</th>
<th>Avadhi</th>
<th>Braj</th>
<th>Fiji Hindi</th>
</tr>
</thead>
<tbody>
<tr>
<td>1sg</td>
<td>bō, ab</td>
<td>bū, ab</td>
<td>ihaū, āgau</td>
<td>egā</td>
</tr>
<tr>
<td>1pl</td>
<td>ab, bī, iha</td>
<td>ab</td>
<td>ihai, āgai</td>
<td>egā</td>
</tr>
<tr>
<td>2sg (masc.)</td>
<td>bē, ba</td>
<td>bē, ihai</td>
<td>(a)ihai, (a)igau</td>
<td>egā</td>
</tr>
<tr>
<td>(fem.)</td>
<td>bī, bis</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2pl (masc.)</td>
<td>bā(h)</td>
<td>bō, bau</td>
<td>(a)ihau, augau</td>
<td>egā</td>
</tr>
<tr>
<td>(fem.)</td>
<td>bū</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3sg</td>
<td>ī</td>
<td>ī, ihai, ē</td>
<td>(a)ihau, agau</td>
<td>ī</td>
</tr>
<tr>
<td>3pl</td>
<td>ih, ē, ihen</td>
<td>ihaĩ, aĩ</td>
<td>(a)ihai, aĩgai</td>
<td>ī</td>
</tr>
</tbody>
</table>

absence of solidarity is a factor in pidginization, where social divisions and restricted communication directly contribute to the reduced nature of pidgins. However, when dialects (and not languages) are in contact as in koineization, speakers can continue to use their own vernaculars for all informal interaction within a newly formed community (Siegel 2001). When this is coupled with solidarity, mutual accommodation on the part of the speakers results, forming the basis of a future new dialect.

Our second example is the development of not one, but two separate koines in Odda and Tyssedal, small towns just 5 kilometers apart in southwestern Norway. Both were established at the beginning of the twentieth century around smelting works located at the head of the Sørfjord in Hardanger to exploit the plentiful supply of hydroelectric power. People moved to these new towns from other parts of the country, with the result that each now has a dialect distinct from surrounding rural varieties. Interestingly, the dialects are radically different, in a way that reflects the regional origin of the majority of the in-migrants. At the same time, they share features that do not have their origins either in the contributing dialects or in the existing speech of the area before industrialization. Sandve (1976) describes the differences between the two new dialects mainly in terms of morpho-lexical variables (the variant forms taken by morphological categories, such as the Norwegian suffixed definite article, and closed-class words, such as pronouns). He finds that the distribution to a considerable extent reflects the dialects spoken by the original migrants. Table 24.2 shows the origins of the workers at the two factories, while Table 24.3 illustrates some of the morpho-lexical and phonological features.

It is clear from Table 24.3 that the Odda koine closely resembles the majority, mainly rural dialects of western Norway, from where the vast majority of migrants arrived. The infinitive suffix is /a/, and the indefinite and definite suffixes of “weak” feminine nouns are /a/ and /u/, respectively, as exemplified by /jɛntu/ and /jɛntu/. The pronoun “I” is /eːg/, and words such as kvit “white” and kval “whale” have /kv/. Nonetheless, this koine contains forms such as /viː/ for western /meː/ “we,” as well as the loss of the southwestern cluster /dl/ in favor

### Table 24.2 Origins of factory workers in Odda and Tyssedal shortly after establishment.

<table>
<thead>
<tr>
<th>Western Norway</th>
<th>Eastern Norway</th>
<th>Norway (other)</th>
<th>Other countries</th>
</tr>
</thead>
<tbody>
<tr>
<td>Origin of people working at Odda Smelteverk in 1916 (%)</td>
<td>81</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>Origin of people working at Tyssedal Smelteverk in 1916–1918 (%)</td>
<td>36</td>
<td>35</td>
<td>16</td>
</tr>
</tbody>
</table>

*Source: Information on Odda and Tyssedal derived from Sandve (1976: 19, 23).*
of /l/ in words such as alle “all.” At first sight, this could be interpreted as straightforward mixing; however, another factor clearly plays a part. One of the characteristics of leveling is the removal of marked forms in the sense discussed above. The latter is clearly the case here: /meː/ is restricted to the southwest, while /viː/ is found in the rest of Norway, including the regional center, Bergen, as well as in most forms of written Norwegian. The cluster /dl/ has practically the same geographical distribution as /meː/, and is therefore used by a small minority of Norwegian speakers. It is in any case gradually being lost in the rural dialects. By contrast, the maintenance of the pronoun form /eɡ/ and the /kv/ cluster is no doubt supported by the fact that both are widespread in western and northern Norway, and are also found in the working-class urban vernaculars in the west, including Bergen.

Tyssedal has a mainly eastern dialect, the morpho-lexis being eastern in form. This is surprising, given that the proportion of East Norwegians among the incomers was only 35 percent. Part of the explanation may lie in the fact that other
parts of Norway were well represented, as well as the presence of a substantial number of Swedes, whose speech would have been largely mutually intelligible with that of the Norwegians. The mixing situation in Tyssedal was clearly more complex than in Odda, with greater linguistic differences involved and no one group predominating. Tyssedal must have been a linguistically highly diffuse community, and this may go some way to explaining the eastern character of its koine. "Diffusion" is the opposite of focusing in Le Page’s (1980) terminology: it refers to great linguistic heterogeneity among the population, with variability both between and within individuals. There is also likely to be an absence of stable norms of any kind, and hence a lack of adult norms for children to converge on – again, a point we will return to. Unmarked forms are more likely to survive here than in koinéizing communities which have a dominant group. In this context, it should be noted that, nationally, speakers of various East Norwegian varieties form by far the largest group. Moreover, many of the eastern forms coincide with the majority Bokmål standard. Thus, the eastern and/or standard forms had a better chance of surviving in Tyssedal than they did in Odda. Standard forms may also have been adopted as a “strategy of neutrality” in a highly diffuse situation (Mæhlum 1992).

Yet in one respect the two koines show continuity with the region in which they were established: both have the uvular [ʁ] for /r/, a pronunciation that has been diffusing outwards from the towns throughout the west and south of Norway for the past 100 years, replacing an alveolar articulation (see Chambers and Trudgill 1998). The pre-new town Odda/Tyssedal area already used the uvular [ʁ] (Gjørv 1986: 28). What is surprising is its adoption in Tyssedal, whose dialect in almost all other respects has a strongly eastern character. A possible explanation for this is that it is an early example of the leveling between the two towns which, according to Sandve (1976), mainly involves the adoption of Odda features by younger people in Tyssedal.

Finally in our discussion of these Norwegian koines, we look for cases of simplification and interdialect forms. First, we note the absence in both dialects of the velar-palatal alternation in nouns whose stems end in /k/, /ɡ/ or /ŋ/. In western and central dialects, the definite form substitutes a palatal for the velar, giving /t̥ɔːk/ for “the roof”; cf. the indefinite /tɔːk/. Both koines have the form /t̥ɔːkə/. This is clearly a simplification, supported in this case by its prior existence in some of the input dialects. Second, we observe that, in Odda, the forms /kɔm/ and /sɔːvə/ are used for the present tense of “come” and “sleep.” These are simple in that they do not show the present-tense stem vowel change found in some “strong” verbs in parts of the southwest (as in /cem/ and /sɔːvə/; cf. infinitives /kɔm/ and /sɔːva/). It is likely that these are genuine interdialect forms – it is unlikely that they existed in any of the input dialects, since they combine the simplified, eastern stem with the western strong-verb suffix /ə/. Interestingly, similar forms are increasingly found more generally in western dialects through leveling (Sandøy 1993: 100–101), an indication that, in all dialect contact situations, the same processes are found. The third feature does seem to have arisen in the koine itself, since there is only recent evidence of it in the rural dialects (Sandøy, p.c.): this is
the Odda noun plural system represented by the forms /vɛɡɑr/ and /ɛlvɑr/, which (as Table 24.3 shows) differ from the majority western variants. These show an increase in morphological regularity, the reasoning being as follows. In West Norwegian dialects, masculine and feminine nouns fall into two classes, depending on whether the plural ending is /ar/ or /ɔr/. Most, but not all, masculine nouns, like hest “horse,” take /ar/, while feminine nouns, like seng “bed,” tend to take /ɔr/. In Odda, this pattern has been generalized to all masculine and feminine nouns, leading to the new, interdialect forms /vɛɡɑr/ and /ɛlvɑr/.

All the features mentioned in the paragraph above are identical to developments in another western Norwegian koine: that of Høyanger, a new town which grew up under very similar conditions to Odda and Tyssedal (Omdal 1977; Trudgill 1986: 95–106; Solheim 2009; Kerswill 2010: 239–242). The Høyanger dialect is strikingly similar to that of Odda, a fact which reflects the mainly western origin of the incomers. The results from the three towns taken together demonstrate that the features that survive the leveling prior to koine formation reflect not only the role of simplification but also the importance of the geographical origins of the original migrants. The latter has been explored by Trudgill and his co-researchers in an investigation of the origins of New Zealand English, to be discussed later (Trudgill 1998, 2004; Trudgill et al. 2000).

3 The Pre-koine: The First Migrants in a New Settlement

We now deal with koineization itself, viewed as a process with distinct but overlapping stages and a variable but finite time-span. Trudgill identifies the following three stages of new-dialect formation, roughly corresponding to the first three generations of speakers (Trudgill 1998; Trudgill et al. 2000):

<table>
<thead>
<tr>
<th>Stage</th>
<th>Speakers involved</th>
<th>Linguistic characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>adult migrants</td>
<td>rudimentary leveling</td>
</tr>
<tr>
<td>II</td>
<td>first native-born speakers</td>
<td>extreme variability and further leveling</td>
</tr>
<tr>
<td>III</td>
<td>subsequent generations</td>
<td>focusing, leveling, and reallocation¹</td>
</tr>
</tbody>
</table>

As we shall see, there is a great deal of variability in the time-depth of koineization, with focusing being possible already by Stage II, and the absence of focusing sometimes persisting over several generations of Stage III. In this section, we deal with Stage I, what Siegel calls the “pre-koine.” Siegel states:

This is the unstabilized stage at the beginning of koineization. A continuum exists in which various forms of the varieties in contact are used concurrently and inconsistently. Levelling and some mixing has begun to occur, and there may be various degrees of reduction, but few forms have emerged as the accepted compromise. (Siegel 1985: 373)
How does this rudimentary mixing and leveling eventually find its way into the everyday speech of the koine speakers? It seems reasonable to seek the answer in the accommodatory behavior of the first generation of speakers (on accommodation, see Giles and Powesland 1997 [1975]; Giles and Smith 1979; Giles and Coupland 1991; Giles, Coupland, and Coupland 1991; Trudgill 1986: 1–4; cf. dissociation, see Hickey, this volume). The link between accommodation and dialect convergence is conceptualized as follows by Auer and Hinskens (2005: 336):

- **Lowest level (interactional episode): short-term accommodation**
- **Middle level (the individual): long-term accommodation**
- **Highest level (speech community): language change**

“Short-term accommodation” is that which takes place in the immediate face-to-face encounter, while “long-term accommodation” is a more or less permanent, or habitual, change in a speaker’s speech production resulting from repeated episodes of short-term accommodation (Trudgill 1986: 11–21). Auer and Hinskens review a number of studies, and come to the conclusion that while linguistic change is very much visible in a speech community, individual accommodation towards the new linguistic forms cannot reliably be observed. Evidence for interpersonal accommodation in general is weak and only observable for certain features, such as syntactic priming (Auer and Hinskens 2005: 238). Instead, Auer and Hinskens argue for the stronger role of “social psychological accommodation”: Instead of accommodating directly to the linguistic features of their interlocutor, speakers converge towards a stereotype of the language of the social group they think their interlocutor belongs to. This may well be enough to drive change in the direction of the emerging new variety.

### 4 Focusing: The Language of the Koineizing Generation(s)

Trudgill’s second stage of new-dialect formation involves the first generation of children born in the new community. As we saw above, he states that this stage is characterized by “extreme variability” and “further leveling.” We will examine four cases to see the extent to which this characterization is true: New Zealand English, Høyanger, the speech of children in the English new town, Milton Keynes, and, finally, children’s speech in the Norwegian Arctic territory of Spitsbergen. To anticipate: we find broad similarities among speakers of this generation, and conclude that focusing usually belongs to the following generation (the migrants’ grandchildren). Particular conditions may mean that focusing takes place earlier,
later, or not at all. Moreover, variations we observe are ascribable to a small set of social and linguistic factors.

The data for Trudgill’s New Zealand study come from recordings made by the National Broadcasting Corporation of New Zealand in 1946–1948. As Trudgill (1998) explains, “[t]he recordings were oral history pioneer reminiscences, mostly from people who were the children of the first European settlers in New Zealand . . . . About 325 speakers born between 1850 and 1900 were recorded.” This generation of people represents the first native-born speakers of English in New Zealand—though, of course, they were elderly by the time they were recorded. The most striking fact about this data archive is its tremendous variability, both between and within individuals. Trudgill (1998) argues that, in situations where there is no single, stable adult model, children are able to choose from a wider variety of adult models than otherwise. Also, in the absence of a stable peer-group variety, adults, especially parents and other caregivers, will have a greater than usual influence on children’s speech (Trudgill et al. 2000; Trudgill 2004: 101). In such a situation, one can expect individuals to make novel selections of features from the available choices. This turns out to be the case. Thus, Mr. Malcolm Ritchie has the following features:

1. /θ/ and /ð/ are realized as dental stops, [t] and [d], as in Irish English;
2. Syllable-final /l/ may be clear (i.e. non-velarized), as in Irish English;
3. He has h-dropping in words like home, an English feature absent in Ireland;
4. He has a distinction between /ʍ/ and /w/, thus distinguishing which and witch. This feature is never combined with h-dropping in the British Isles.

Not surprisingly, there is great inter-individual variation even between people with near-identical backgrounds. For example, Mr. Ritchie’s sister-in-law, Mrs. H. Ritchie, attended the same school at the same time as he did, yet has some quite different features in her speech. Unlike Mr. Ritchie, she has close realizations of /æ/ as [ɛ] and /e/ as [e], while he typically has more open variants.

Despite this variability, there is evidence of leveling in this group of speakers. For example, there is an almost complete absence of the use of the vowel /ʊ/, as in foot, in the strut set—a feature of the northern half of England. In terms of the demography of the settlers, northern speakers were certainly in a minority, yet the northern vowel variant had clearly been leveled out already by the first generation of native-born speakers.

Trudgill does not provide any information about the transition from Stage II to the fully-fledged, focused Stage III of present-day New Zealand English. However, he comments on the relationship between the apparently random speech of the earlier generations and present day speech, as follows:

The “original” [i.e. highly individual] mixtures that were demonstrated for individual informants such as Mr Riddle at Stage II are indeed the result of random selection. But the proportions of variants present in the accents of groups of Stage II speakers in a particular location, taken as a whole, derive in a probabilistic manner from, and will therefore reflect [. . .] the proportions of the same variants present in the different varieties spoken by their parents’ generation taken as a whole. (Trudgill 2004: 126)
This reasoning forms the core of his argumentation: The particular outcomes we see in today’s New Zealand English are the result of an entirely deterministic process, in which social factors other than demography did not play a part. We will return to this surprising contention in the final section.

Trudgill examines some of the features of Stage III in the light of the proportions of those features found in his Stage II corpus. Thus, 75 percent of the speakers and, to judge from available statistics, a majority of the earliest immigrants from the British Isles, did not use h-dropping in words like house, despite the fact that this is the norm in much of England today; h-dropping has almost completely disappeared from modern New Zealand English. A similar explanation can be put forward for the maintenance of the distinction between /ʍ/ as in which and /w/ as in witch, despite its being rapidly lost in England.

Trudgill’s findings on the early speech of New Zealand match Omdal’s comments on the Norwegian town of Høyanger very closely indeed. Høyanger was founded in 1916 and received in-migrants from various parts of Norway. Omdal writes:

As it turned out, the first generation to be born and raised in Høyanger, i.e., people who today [=1977] are in their fifties, do not have a uniform dialect, but have a spoken language that to a great extent bears the imprint of their parents’ dialect. There is a good deal of variation between individuals. (Omdal 1977: 7; my translation)

We can presume that the reasons for the lack of early focusing in Høyanger are similar to those adduced for New Zealand: but are there any specific, local circumstances that gave this result? It turns out that, in the early years of Høyanger’s existence, there was considerable social segregation between the families of managers and professionals and those of the workers, with housing in different parts of the town. Crucially, while the workers mainly came from the same county as Høyanger, the managers and professionals came from the east of the country. This meant that linguistic convergence between the two groups could only take place later, as social and geographical allegiances became more oriented toward the new community. A second factor is the relatively large linguistic differences between dialects in Norway, particularly at that time; the factor of dialect differences would have played a similar part in New Zealand.

Koineization did, however, ensue in the next generation: “To find a uniform spoken variety, we must move a generation on, to people who are in their 20s or younger. The speech of these people gives the impression that it is just as ‘firm’ as in other similar places with a more stable population growth” (Omdal 1977: 7; my translation). (See Solheim (2009), Kerswill (2010), and Kerswill and Williams (2000: 73–74) for more detailed discussions of Høyanger.)

Our next example is the southeast English new town of Milton Keynes, designated in 1967 in a location roughly 80 kilometers from London, Oxford, and Cambridge. From that date to 1991, the population of the area rose from 44,000 to 176,000. Recordings were made of children and adults in 1991–1992, some 24 years, or one generation, after its foundation. Further recordings of a different sample were made in 1996 (Kerswill and Williams 2000; Kerswill 1994; Cheshire
et al. 1999). Thus, almost all the child speakers in the samples were the offspring of adult migrants to the town. We consider first the degree to which this first native generation has focused its speech, in comparison with that of the caregivers. The variable (ou) refers to the realization of the offset of the vowel /ɔʊ/ as in goat, which is currently being fronted in southeast England. The parents of the children originate from various parts of Great Britain, and would therefore be expected to show a range of pronunciations for this vowel, from both the southeast and elsewhere. In order to see whether any focusing among the children has occurred, we can compare the fronting scores for the parents (only the mothers were recorded in the study) with those of their children. The variable has the following values:

- (ou) – 0: [ɔː], [ou] score: 0 (Northern and Scottish realization)
- (ou) – 1: [ɔʊ], [ɔʏ] score: 1 (older Buckinghamshire and London)
- (ou) – 2: [ɔʏ] score: 2 (fronting)
- (ou) – 3: [ɔɪ] score: 3 (fronting and unrounding)

Figure 24.1 shows the association of the children’s scores (ranked from highest to lowest) with those of their caregivers. Two points should be noted. First, with two notable exceptions (at bottom right on the graph), the overall range of the children is much smaller than that of their caregivers, suggesting a high degree of focusing. The caregivers’ scores reflect their regional origins, with the six very low scorers coming from outside the southeast. Thus, the caregivers’ vowel realizations are not reflected at all in their children’s scores. On the evidence of this and other variables (Kerswill and Williams 2000), Milton Keynes children seem not to be much influenced by their parents’ speech – in distinct contrast to the first genera-

Figure 24.1  Association of Milton Keynes children’s (ou) scores with those of their caregivers.
Source: Kerswill and Williams (2000, p. 102).
Koineization

...native speakers in New Zealand and Høyanger. The fact that the two exceptions just mentioned turn out to be four-year-olds suggests that it is the older, not the younger, children who are engaged in the focusing – a point to which we will return. Moreover, the fact that the children’s scores are significantly higher also suggests that they are orienting their focusing towards the new, fronted norm for this vowel (Kerswill and Williams 2000: 101).

The Milton Keynes child data allows us further insights into the early stages of koine formation. It has recently been argued that language change is unlikely to be mainly due to misanalyses of adult grammars on the part of young children during their acquisition phase, for two main reasons. First, developmental forms that appear in child language are rarely the same as those that appear in change (Croft 2000: 47). Second, young children, for sociolinguistic reasons, are not able to be part of the diffusion of changes (Aitchison 1981: 180). Instead, it seems likely that older children and adolescents are the main “agents of change,” because of their willingness to innovate and their orientation towards their peer groups and older adolescents (Eckert 2000; Kerswill 1996). Careful examination of the Milton Keynes children’s and adolescents’ data allows us to draw conclusions about their contribution to any new dialect that may develop there. Figure 24.2 recodes the data from Figure 24.1 into two categories, mid/back offset and front offset, and adds information from the adolescents recorded in 1996.

As can be seen, the amount of fronting increases with the age of the subjects from 1991 (the four-, eight-, and 12-year-olds), while the adults have the lowest score. Interestingly, the 14-year-olds recorded in 1996 show a further small increase. Bearing in mind that the 14-year-olds recorded in 1991 would have been nine in 1991, these results strongly suggest that the children themselves actually increase their fronting as they reach adolescence.

Figure 24.2 Percent front/non-front offset of (ou) (goat), Milton Keynes women and girls.

Source: Cheshire et al. (1999), Kerswill and Williams (2000).
Finally, we briefly look at a new community which, despite having existed for over 100 years, has never developed a koine. This is the Norwegian Arctic territory of Spitsbergen (Svalbard) (Mæhlum 1992), where, because families stay on average only for 10 years, there is no possibility of a stable adult norm. Children there have an “unclear dialect identity” (Mæhlum 1992: 123), expressing identification both with the “home” town or village on the mainland and with Spitsbergen. Very much in line with findings from New Zealand and Høyanger, these children apparently retain more influence from their parents’ speech than children do in established communities. Consequently, they are much more heterogeneous, as well as internally inconsistent. Mæhlum argues that they use code-switching, dialect mixing, and a version of standard East (Oslo) Norwegian as “strategies of neutrality.”

Three main points emerge. First, the kind and level of social integration of the new community affects the speed of koineization. Thus, a socially homogeneous community is likely to koineize faster than one with considerable social divisions. Perhaps surprisingly, continued immigration (as in New Zealand) seems to have only a minor inhibitory effect on koineization – as long as, crucially, there is a stable “core” of speakers who remain after the initial settlement who can act as a focus for new incomers (cf. Mufwene’s (1996) “founder principle”); this factor differentiates New Zealand from Spitsbergen. Second, children’s access to peer groups is crucial. Child speakers must be able to interact freely with other, perhaps older, children for them to be able to establish norms in the absence of a stable adult model. The development of adolescent norms is likely to be accelerated by compulsory schooling – a point made by Britain (1997a: 165) in the context of slow dialect leveling in the Fens of eastern England following seventeenth-century migrations (on this, see Britain 1997b). Schooling in early New Zealand was sporadic and not centralized, because many of the settlements were remote and communications were poor; this is obviously not true of Milton Keynes. (See Eckert 2000 on the role of the adolescent years in socialization and language change, and the importance of the school; see also Hickey, this volume, on the importance of schooling in the process of supraregionalization, and Kirkham and Moore, this volume, for an overview of adolescence and language variation.) Third, the degree of difference between the input varieties will affect the amount of accommodation that individuals have to engage in. In Milton Keynes (unlike the other cases considered in this chapter), the dialect differences are for the most part subtle, being restricted to minor subphonemic variations. As a result, most of the usual heterogeneity found among first-generation children is simply bypassed, given sufficient opportunities for contact among children and adolescents, and focusing toward a new variety is accelerated.

5 Social Factors in Koineization

The histories of the New Zealand and Høyanger koines highlight a controversial issue with wider implications. This is the extent to which social factors in any way
influence the direction and outcomes of koineization. As we saw in Section 4, Trudgill claims that these had little specific influence. He points out that children in new settlements are unlikely to be influenced by norms of correctness or notions of the relative prestige of language varieties. He qualifies this by stating that this applies only in *tabula rasa* situations where there were no prior speakers of the language concerned: people in other situations, such as Høyanger and Milton Keynes, are not cut off from their linguistic and social roots, nor are they isolated from the speech community at large. Trudgill’s position has been criticized by a number of scholars (e.g. Meyerhoff 2006; Hickey 2003; Kerswill 2007, 2010) on the grounds that it does not fully take into account the kinds of communities that are known to have existed and the presence, despite emigration, of norms relating to linguistic and other behavior. There is no denying, however, that Trudgill’s probabilistic model largely works for his New Zealand data. It has also been influential in highlighting the importance of contact vs. subjective, attitudinal factors, particularly identity, in exploring dialect change – an insight that has been explored in this chapter.

NOTE

1 Tuten (2001: 328) makes the point that “the distinction between leveling and simplification may be unnecessary, since all the cases of leveling and simplification described by Trudgill involve a reduction in units, such as morpholexical items and phonemes, or a reduction in rules, such as those underlying morphophonemic alternations.” This leads Tuten to suggest that simplification may be better interpreted as reduction, as we have seen.

REFERENCES


Koineization


This chapter is concerned with two processes that are central to language variation and change. The processes are related but separate and usually do not coincide temporally. The first of these, dissociation, can occur at any time, given appropriate external triggers, whereas the second, supraregionalisation, is an historical process that normally happens once, at a particular time in the development of a country.

The data for the present study stem from Ireland and were collected by the author between the early 1990s and 2011. It is important to stress that Ireland does not have any privileged position vis-à-vis dissociation and supraregionalisation—these processes can occur anywhere. However, they are clearly attested in Ireland in its recent history and hence well documented. There is another reason why these two processes can be well illustrated by examples from English in Ireland: this is a country that does not have an overtly codified standard of English and in which standard British English is not a model that is accepted publicly in Ireland. So whatever changes in Irish English take place, or have taken place, the results are never an approximation to standard British English.

1 Supraregionalisation

Supraregionalisation is an historical process whereby varieties of a language lose specifically local features and become less regionally bound (Milroy, Milroy and Hartley 1994). The upper limits of supraregionalisation depend on a number of external factors, such as the country in which the set of varieties is spoken. If this country was historically a colony of another, then there may be an (unconscious) wish within this country to maintain some linguistic distinctiveness vis-à-vis the
varieties of the former colonising country (Hickey 2007a: 309–315). Such “exonormative” or “extranational” forms of a language are significant in a country although they stem from outside its borders. In a way they act as a brake on supraregionalisation because structural distance must be maintained, above all in pronunciation as this is immediately available for assessment by others and so is a primary instrument for realising linguistic identity. Examples of extranational varieties of languages in Europe would be German for the Austrians, French for the Walloons and Dutch for the Flemings.

A region within a state may also show supraregionalisation, often a region that has a geographical and cultural identity of which speakers are aware. The north of England (Wales 2006: 20–24) is just such a case. There is clearly a northern type of accent in England and this arose through a set of local features being used across the subregions of the north and maintained by non-local speakers for identification purposes in the entire north vis-à-vis the south of England. The two most prominent of these features are probably the [u] in the STRUT lexical set and the [a]-vowel in the BATH lexical set (Wells 1982: 349–353).

Apart from features that are found across a region there may well be features that are either confined to a subregion within a larger one or that are associated with strong vernaculars across the entire region and hence not part of a supraregional variety. In the case of north England, the unshifted long vowel – /uː/ – in the MOUTH lexical set would be one such example. It is furthermore typical of supraregional varieties that they tolerate vernacular features in lexically confined instances, for example the unshifted vowel in the town [tuːn] as a local reference to the city of Newcastle with supraregional speakers who otherwise have /au/ in the MOUTH lexical set.

1.1 Suppression of vernacular features

Supraregionalisation is characterised by the suppression of features found in vernaculars present in the country/region undergoing supraregionalisation. When comparing a supraregional variety with vernaculars today one can ask if there are any principles that appear to have been operative in feature suppression. This question will be returned to in Section 1.6 below. Another question worth asking is whether supraregionalisation involves suppression and selection of features. When one considers the related process of standardisation (Hickey 2012) then one can see that selection is indeed part of this process; consider the well-known model by Einar Haugen.

Table 25.1 Criteria for standard languages.

<table>
<thead>
<tr>
<th>Form</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>Society</td>
<td>Selection</td>
</tr>
<tr>
<td>Language</td>
<td>Codification</td>
</tr>
</tbody>
</table>

*Source: Haugen (2003 [1964]: 421).*
But by selection Haugen understood the preference for a particular variety, say, that of the middle classes in the capital city of a country. In the process of supraregionalisation the steps involved are more subtle and fine grained. Speakers do not adopt an existing variety en bloc, but rather suppress a range of vernacular features to render their speech less regionally bound, that is, supraregional. The inherent advantage to this, in a social sense, is that the new supraregional variety is devoid of stigma. It is only in the speech of a specific locality, urban or rural, that is stigmatised. This fact was recognised in the eighteenth and nineteenth centuries in England when people involved in education pushed for a lack of regional rootedness, as in the well-known quotation: “It is the business of educated people to speak so that no-one may be able to tell in what county their childhood was passed” (Burrell 1891: 24).

The connection between standardisation and supraregionalisation should not be overstressed. The essential difference is that with supraregionalisation there is no explicit codification, because the supraregional variety does not generally have a codified written form used for official purposes (Milroy and Milroy 1999). Indeed, supraregional varieties are essentially spoken forms of language. However, one could maintain that there is covert codification, that is, that supraregional speakers are aware of which features do and do not belong to their variety. A clear example of this is the absence of t-glottalisation in supraregional Irish English, although /t/ in open position (intervocally and finally before a pause) is generally realised as a fricative, cf. sit [sɪt] and city [ˈsɪtɪ]. The reason why t-lenition does not continue from a fricative to a glottal realisation is that the latter is typical of local Dublin English, city = [ˈsɪʔɪ], a much stigmatised accent in Ireland.

Furthermore, supraregional speakers are generally aware of the scalar nature of varieties in their country/region. To consider northern British English again: /o/ in STRUT and /a/ in BATH are supraregional features, but low monophthongs in the FACE and GOAT lexical sets, that is, [ɛs] and [ɔt] respectively, are far more indicative of vernaculars.

The suppression of vernacular features in supraregional varieties might be thought to be one side of a coin, the other being the selection of features for the new supraregional variety. As avoidance of an all-too-local association would seem to be the driving force for supraregionalisation, the removal of features seems to have priority. Certainly there can be no question of a conscious choice among speakers of which features to retain.

In the following sections a detailed discussion of supraregionalisation in Irish English is offered to illustrate what sub-processes are involved here and the trajectories they take. These may well be, or have been, replicated by similar processes in varieties of English across the Anglophone world.

### 1.2 The process of supraregionalisation

A consideration of the history of English in Ireland shows that there was not only influence from Irish during the long period of language shift from the seventeenth through to the nineteenth century (Hickey 2007a: Chapter 4) but also a large degree of superimposition or adoption of more standard forms of English due to
exposure to forms of British English. This superimposition has led to layering in Irish English where remnants of former distributions have become confined to certain registers and/or are indicative of strongly localised varieties. This is true of unshifted Middle English /ɛː/ in the MEAT lexical set or /ʊ/ in the STRUT lexical set (in local Dublin English).

Superimposition of more standard forms has led in its turn to the process of supraregionalisation. Part of this process is, for instance, the ironing out of non-standard vowel features among earlier forms of Irish English, as in the replacement of /uː/ by /au/ in words like *down*, *crown*, *about*. It is important to grasp that the appearance of /au/ in the MOUTH lexical set is not the result of internal change in Irish English. Rather it is due to the adoption of a pronunciation from British English, that is, to the superimposition of a pronunciation variant from outside the country (supraregionalisation must be carefully distinguished from dialect levelling or the formation of compromise forms).

### 1.3 Reduced variation in supraregional varieties

Because a supraregional variety is not locally bound it can never serve the identity function that the vernacular fulfils for members of social networks (L. Milroy 1976; J. Milroy 1991). For that reason supraregional varieties tend not to show the degree of phonological differentiation present in the vernaculars to which they are related. For instance, in local forms of Irish English, both urban and rural, there is a distinction between short vowels before historic /r/, that is, the vowels in *term* and *turn* are distinguished: *term* [tɛm] versus *turn* [tʌm]. In the supraregional variety, however, a single vowel is found in both cases, namely schwa [ə].

Another feature, which shows that supraregional varieties are less differentiated than their related vernaculars, is so-called *t*-lenition (Hickey 2007a: 322–325). In supraregional Irish English *t*-lenition is nearly always realised by the apico-alveolar fricative [ɾ]. But in local Dublin English, there is a range of realisations, from [ɾ] through [ɾ, h ʔ] to zero (Hickey 2009).

<table>
<thead>
<tr>
<th>(1) No lenition</th>
<th>Lenition</th>
</tr>
</thead>
<tbody>
<tr>
<td>syllable-initial</td>
<td>post-vocalic+pre-pausal</td>
</tr>
<tr>
<td>pre-consonantal</td>
<td>intervocalic</td>
</tr>
<tr>
<td>t</td>
<td>t &gt; h - ? &gt; Ø</td>
</tr>
<tr>
<td><em>tea</em>, <em>lightning</em></td>
<td><em>but</em> <em>water</em> <em>water</em> <em>what</em></td>
</tr>
</tbody>
</table>

### 1.4 How supraregionalisation is triggered

In Ireland, and presumably in other European countries, the main trigger for supraregionalisation in the late modern period was the introduction of general schooling and the rise of a native middle class during the nineteenth century. The Catholic Emancipation Act of 1829 was passed after political agitation under the leadership of Daniel O’Connell (Connolly 1998: 75, 399–400). Shortly afterwards, in the 1830s, so-called “national schools”, that is, primary schools (Dowling 1971:
116–118), were introduced and schooling for Catholic children in Ireland became compulsory and universal. The experience of general education for the generation after this increased their acceptance in the higher classes of Irish society (Daly 1990). A native middle class came into existence with all that this meant in terms of linguistic prejudice towards vernacular varieties of English. It is thus no coincidence that the disappearance of certain features of Irish English is located in the mid-to late nineteenth century (Hickey 2008). These features were largely replaced by the corresponding mainland British pronunciations. An instance is provided by unshifted Middle English /aː/ which was a prominent feature up to the eighteenth century. For instance, George Farquhar in his play The Beaux’ Stratagem (1707) has many of the stereotypes of Irish pronunciation, including this one: Fat sort of plaace (= [plạs]) is dat saam (= [saːm]) Ireland? “What sort of place is that same Ireland?” Somewhat later, Jonathan Swift used end-rhymes which indicate that for him words like placed and last rhymed. At the end of the century, Thomas Sheridan criticised the Irish use of /aː/ in matron, patron, and so on. But by the mid-nineteenth century there are no more references to this. Dion Boucicault (1820–1890), who does not shy away from showing phonetic peculiarities in his dramas, does not indicate unshifted Middle English /aː/ when writing some 80 years after Sheridan. This kind of development can be shown to have applied to a number of features. For instance, SERVE-lowering – the realisation /saːrv/ rather than /sɜːrv/ – appears to have died out during the nineteenth century and by the beginning of the twentieth century the feature had all but disappeared. The same is true of ASK-metathesis, which is attested in many representations of vernacular Irish English in the nineteenth century but is not common in Ireland today.

1.5 How supraregionalisation proceeds

Supraregionalisation is a type of language change. As such, it is subject to the phases of actuation, propagation and conclusion (Weinreich, Labov and Herzog 1968). Actuation is probably triggered by a consciousness of the provinciality of speakers’ speech and the presence of more mainstream varieties, be these extra- national or not.

For the propagation phase there are two competing views of how the process takes place. The elimination of local features may be lexically abrupt with the substitution of local feature X by supraregional feature Y in all words in which it occurs. This corresponds to the Neogrammarian view of change. But equally a scenario is conceivable in which a local feature is replaced by a supraregional feature, if not word by word, at least not across the entire lexicon at once. Lexical replacement of this kind would correspond to lexical diffusion as conceived of in studies like Wang (1969).

An example of this would be the following: in the south of Ireland remnants of the previously widespread diphthongisation of former /oː/ before velar [H] + /d/ are found with old [auld] and bold [bautd]. But historically, this pronunciation is recorded for many other words, like cold, hold, sold. The pronunciation would seem to have applied previously to all words that matched the phonetic
environment. The replacement of [-aul]C by [o:l]C, where C was usually /d/, would appear to have proceeded by a process of lexical diffusion. The same would seem to have applied in Belfast in the north of Ireland (J. Milroy 1981: 28f). Furthermore, the words with the /au/ pronunciation (with deleted final /-d/) have retreated into more colloquial forms of speech so that now there is a lexical split between old /aul/, /old/ and bold /baul/, /bولد/: the form /aul/ for old implies a degree of affection and /baul/ for bold a sneaking admiration as in Nothing beats the /aul/ pint; The /baul/ Charlie is some crook (the adjectives in these senses only occur attributively).

The conclusion of supraregionalisation is somewhat difficult to pinpoint. In the case of Ireland it cannot be the complete adoption of English pronunciation norms. Indeed, differential linguistic features vis-à-vis extranational varieties of English are maintained not just in Ireland; consider Scotland and its supraregional variety Scottish Standard English (Abercrombie 1979; Stuart-Smith 2008) which, for instance, shows a clear non-prevocalic /-r/ in strong contrast to southern British English.

Speakers would seem to be unconsciously aware of supraregional varieties, as there is an unconscious consensus about what features are characteristic of them. An essential part of being a native speaker lies in knowing which features are part of the supraregional variety and which are not (see remarks on t-lenition above). A case from grammar would be the after-perfective, as in He’s after breaking the glass “He has just broken the glass”, which is acceptable in the supraregional variety, whereas the do(es) be habitual, as in He does be mending cars in his spare time “He is always mending cars in his spare time”, is not.

### 1.6 The paths taken by supraregionalisation

Apart from the question of actuation, propagation and conclusion, the paths that supraregionalisation can take are of linguistic interest. In the Irish English context the following paths are attested:

#### 1.6.1 Entire replacement of vernacular features  
A number of archaic pronunciations are to be found in early modern documents of Irish English. For instance, the word for gold still had a pronunciation with /u:/ (as did Rome) in late eighteenth-century Ireland: goold /guːld/, a pronunciation criticised by the prescriptivist John Walker (1791). The word onion /ʌnˈjan/ had /ʌnˈjan/, an older pronunciation mentioned by P. W. Joyce at the beginning of the twentieth century (Joyce 1979 [1910]: 99). This was recorded by the lexicographer Nathan Bailey in 1726 (Universal Etymological English Dictionary) but was not typical of mainstream pronunciations as Walker notes at the end of the eighteenth century.

Vowels before /r/ provide further instances where Irish English was out of step with developments in England. R-lowering did not occur in words like door /dɔːr/, floor /flɔːr/, source /sɔːrs/, course /kɔːrs/, court /kɔːrt/, which, according to the Appendix to Thomas Sheridan’s Rhetorical Grammar (1781: 137–155), were
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Table 25.2  Restriction of vernacular features in the twentieth century.

<table>
<thead>
<tr>
<th>Feature</th>
<th>Pre-twentieth century</th>
<th>Twentieth century and later</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) /ɛ/ to /ɪ/ raising</td>
<td>unconditional</td>
<td>only before nasals (south-west)</td>
</tr>
<tr>
<td></td>
<td>together, yis, git</td>
<td>pen [pin], ten [tin]</td>
</tr>
<tr>
<td>2) metathesis</td>
<td>in stressed syllables</td>
<td>only in unstressed syllables</td>
</tr>
<tr>
<td></td>
<td>purty [psɔti] ‘pretty’</td>
<td>modern [′modrən]</td>
</tr>
</tbody>
</table>

typical Irish pronunciations. This means that the southern mainland English lowering of back high vowels before /r/ had not occurred in Ireland by the late eighteenth century but was introduced in the following century by lexically replacing those pronunciations that conflicted with mainland British usage.

1.6.2  Restriction to a specific phonetic environment  When a local feature is being removed from a supraregional variety then there may be a phase in which the feature goes from being unconditional to conditional. This is recognisable if the conditional realisation is still attested. Consider the case of “short E”-raising in Irish English. This is recorded in many environments in historical documents but later texts show a restriction to pre-nasal environments (as found nowadays in south-west and mid-west varieties). Another instance is the metathesis of a vowel and /r/. In the nineteenth century and earlier it is attested in stressed syllables but later only in unstressed ones.

One explanation for the survival of features as conditional variants is that these are less salient (Hickey 2000; Kerswill and Williams 2002) than unconditional ones. If a feature like “short E”-raising is restricted to a pre-nasal position, a phonetically preferred environment for this raising given the formant structure of nasals, then it is automatic (for the variety that has this raising) and so less salient for speakers. Similarly, if metathesis is confined to unstressed syllables then it is less acoustically prominent and again less salient and hence less likely to be removed by supraregionalisation.

1.6.3  Relegation to colloquial registers  Although the supraregional form of English is the native style of many speakers in Ireland, they may deliberately manipulate salient features and adopt a vernacular pronunciation, for example for the purpose of caricature or when style-shifting downwards (Labov 2001). Simple instances of this are the replacement of you by youse, the use of [lɛp] for leap [liːp] or the high vowel in get as in Get [ɡɪt] out of here!, all typical of colloquial registers of Irish English.

In the course of its development, Irish English has evolved a technique for attaining local flavouring. This consists of maintaining two forms of a single lexeme, one a standard one, adopted during supraregionalisation, and another an archaic or regional pronunciation that differs in connotation from the first (see
also the discussion of *old* and *bold* above). The second usage is always found on a more colloquial level and plays an important role in establishing the profile of vernacular Irish English. The following are some typical examples to illustrate this phenomenon: *Eejit* ['i:dʒə] for *idiot* (Dolan 2004: 83–84) has adopted the sense of a bungling individual rather than an imbecile. *Cratur* ['kretə] shows a survival of the older pronunciation and denotes an object of pity or commiseration. Indeed, for the supraregional variety of the south, unraised Middle English /eː, eː/ automatically implies a vernacular register. Other words that, colloquially, still show the mid vowel are *Jesus*, *decent*, *tea* (represented orthographically as *Jaysus*, *daycent*, *tay*). In these cases the replacement of an older pronunciation by a more mainstream one has led to the retreat of the former into a marked style, here one of local Irishness. *Fellow* has final /ou, oː/ in the supraregional standard. But a reduction of the final vowel to /ə/ is historically attested in Irish English as in *yellow* [jɛl]. There is now a lexical split with the first word such that the pronunciation [fɛl] means something like “young man, boyfriend” in colloquial Irish English.

### 1.7 Further issues in supraregionalisation

*Mergers:* sociolinguistic research on vernacular forms of English in Belfast (see J. Milroy 1981) has shown that nonstandard phonology is more complex than standard phonology and that mergers are more common in standard and koine varieties. At first sight this might seem to hold for southern Irish English as well. For instance, there is no distinction between historically different short vowels before /r/. Hence one has a single rhotacised vowel [ɔ] in the supraregional variety but in vernacular forms /e/ and /ʌ/ are kept distinct before /r/ as in *girl* [gɛrəl] and *burn* [bərən].

There is an apparent contradiction here because, with dental stops in the THIN and THIS lexical sets, a shift to an alveolar articulation is found in many vernacular varieties. This leads to a merger with the alveolar stops in the TWO and DO lexical sets (cf. *thinker* and *tinker*, both [ˈtɪŋkə]) which is stigmatised in Irish English. However, stigma or acceptance of mergers in vernacular varieties depends crucially on whether the merger is unconditional or not. With the single rhotacised vowel [ɔ] one is dealing with a merger in a specific phonological environment, namely before tautosyllabic /r/. With dental vs. alveolar stops, on the other hand, one finds that it is the unconditional merger, leading to noticeable homophony, that is stigmatised.

*Hypercorrection:* In the Ireland of the eighteenth and early nineteenth centuries, when many of the pronunciations discussed above were not confined to specific styles, hypercorrection was common. Both Sheridan (1781) and Walker (1791) remark on the fact that the Irish frequently say *greet* “great”, *beer* “bear”, *sweer* “swear”, unaware of the fact that these words had /eː/ rather than /iː/, although by the eighteenth century the majority of words in the MEAT lexical class already showed the /iː/ vowel. However, before tautosyllabic /-r/ and in a few lexicalised cases like *great*, *break*, *steak*, the shift to /iː/ had not taken and was not to take place. This fact was not recognised by speakers shifting from their native mid
front vowel to the presumed universal /iː/ in the MEAT lexical class, hence the instances of hypercorrection just quoted.

Hypercorrection would appear to die away with supraregionalisation. This stands to reason: if local features are replaced by more standard ones then later generations master the correct distribution of sounds immediately.

1.8 Supraregionalisation and heteronymy

The notion of heteronymy has been employed by linguists (Chambers and Trudgill 1998: 10–14) to refer to the fact that similar dialects in a geographical area can often be related to different standard languages, especially when a national border runs through the area in question. A good instance of this is the German-Dutch border. Rather than just specifying the relationship of a dialect to a standard, one can express the relationship as one between a dialect and a supraregional variety. This captures the insight that speakers can shift away from their dialect by the adoption of less regionally bound features without necessarily switching to the codified standard of a country. Supraregionalisation would then exercise a pull in two opposite directions depending on what the heteronymic relation is in the dialects of an area, as shown in the following map.

Another example of diverging heteronymic pull can be found in south-east Ulster, an area that straddles the divide between Northern Ireland and the Republic of Ireland and which consists of counties Monaghan (Republic of Ireland), Armagh and south Down (the latter two in Northern Ireland). For speakers north of the border, the supraregional variety they gravitate towards is Northern Irish English whereas, for those south of the border, their guideline supraregional variety is that of the south of Ireland.

Figure 25.1 Direction of heteronymy on the German-Dutch border.
Local varieties of English in south-east Ulster share certain features, such as an off-glide after the vowel in the FACE lexical set and the use of a dental stop and front [æː] in the BATH lexical set. Speakers of the supraregional variety north of the border retain the off-glide in their speech because this is part of northern supraregional speech. Those south of the border drop the off-glide as supraregional Irish English does not have this. In the BATH lexical set, supraregional speakers south of the border retain the [bæt] pronunciation whereas those north of the border use a more central vowel followed by an (inter)dental fricative.

2 Dissociation

The second section of this chapter examines to what extent dissociation is a significant and quantifiable factor in language change. Dissociation is the opposite
of the linguistic bonding typical of closely knit social networks. It is reactive in
time, that is, it implies that there is a variety with features intuitively recognis-
able to others in contact with it and that these other speakers develop strategies
to distance themselves linguistically from the group showing these distinctive
features. Dissociation is a dynamic process, that is, it does not consist solely of the
avoidance of some salient features of a particular variety.

Dissociation is the opposite of accommodation, the approximation of individu-
als to the speech of their interlocutors. Accommodation is taken to be a powerful
force in dialect differentiation as often pointed out, above all by Peter Trudgill (see
Trudgill 1986: 1–38). Both accommodation and dissociation deal with an alteration
in the speech of a community in contact with another; what separates them is the
direction. There would not appear to be any predisposition towards unidirec-
tionality as there is with language internal developments such as grammaticalisation.
Dissociation is generally attested socially, for instance in dress, food, leisure time
activities, area of residence, just to mention a few typical parameters of social
variation. If one assumes that sociolinguistic behaviour has parallels in non-
linguistic social behaviour, then the existence of dissociation in other social spheres
outside of language gives support to the assumption of its existence on a linguistic
level.

The linguistic means for achieving dissociation consist – on the sound level – of
choosing realisations that are maximally distinct from those in the variety from
which speakers are dissociating themselves. These realisations may well display
an internal systematicity of their own, thus constituting a case of a principled
sound change as is the case in the shift in vowels observed in Dublin during the
1990s (Hickey 1999, 2005). But this systematicity is probably not a characteristic
of dissociation in its very initial stages. Nonetheless, there may be linguistic con-
ditioning on the manifestations of dissociation, as will be obvious in the discussion
below.

Because the reasons for dissociation lie in the (linguistic) reaction of one group
to another it is obvious that it has an external trigger. From the present-day example

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**Table 25.3  South-east Ulster local and supraregional pronunciations.**

<table>
<thead>
<tr>
<th></th>
<th>South-east Ulster local pronunciations</th>
<th>Southern supraregional variety</th>
<th>Northern supraregional variety</th>
</tr>
</thead>
<tbody>
<tr>
<td>FACE lexical set</td>
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<td>BATH lexical set</td>
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<td>[bæːt] (front vowel + dental stop)</td>
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of Dublin English one can probably conclude that initially dissociation took place in a weak-tie, non-focused group reacting to another with strong ties and a clear linguistic focus. Clarity of linguistic profile would seem to be a precondition for another group to begin the process of dissociation in the first place. It is this clarity that renders the other group clearly identifiable and then leads to a desire on the part of others not to be associated with the group so easily recognisable in its speech. Despite its obvious motivation, dissociation would appear to be an unconscious process. It is not subject to comments by non-linguists (at the very least within the context of Dublin English). Nonetheless, it proceeds with a high degree of regularity. Presumably the very unconscious nature of dissociation promotes regularity. After all, if a process is conscious then speakers can make decisions about whether to partake in it or not and non-linguistic preconceptions and attitudes can interfere with the operation of the process.

2.1 The background to Dublin English

Vernacular Dublin English is the historical continuation of the English taken to the east of Ireland in the late twelfth century and it has developed quite independently from English in England since. Speakers of local Dublin English typically have low social and economic status. Beside them there is a broad base of speakers who belong to different sub-divisions of the middle class and whose English is more or less identical to the supraregional variety of English in the Republic of Ireland (see discussion above). This latter variety developed throughout the nineteenth and early twentieth centuries as the speech of the metropolitan middle class and had a beacon function for other urbanites throughout the south of Ireland. The third identifiable group is that of younger, socially conscious speakers striving upwards and partaking – or, significantly, wishing to partake – in the new-found wealth of the capital (during the 1990s and early 2000s). It is this group that reacts most obviously to the more traditional working-class forms of Dublin life, not just language, by dissociating themselves from the section of the community that embodies these traditional values and behavioural norms. In the linguistic dimension, dissociation is particularly marked with respect to those features of the low-status variety that are stigmatised. The question of stigmatisation is a complicated one and it is difficult to find simple criteria for determining how and when a feature becomes stigmatised. On the phonological level there are characteristics of stigmatised sounds that can be recognised. For instance, sounds that represent a merger with another are liable to become the object of sociolinguistic censure if the merger does not apply to higher-status varieties in the same society. In Dublin English the merger of dental and alveolar stops to alveolar positions, as in pairs like thank and tank, both with initial /t-/ is highly stigmatised; an example of a vocalic merger concerns the non-local vowel /ʌ/ which is realised in popular Dublin English as /ʊ/ with homophony in word pairs like put and putt. A feature might be salient because it stands in sharp contrast to the supraregional variety. For example, local Dublin English has [ɛi], as in time [tɛm], for the [aɪ] of supraregional Irish English, including more conservative middle-class accents in Dublin itself.
The dissociating social group is typically diffuse, as expected when one is dealing with a reaction by a non-local group to a strongly local one. The cohesion of the latter is not matched by any comparable social bonding on the part of the dissociating group. Of course, the diffuseness of the reacting group may change. If the means chosen to achieve dissociation form a clear pattern of (sound) shift then this clarity may in turn bestow a new and distinct profile on the reacting group.

There is an individual and collective aspect to dissociation. Dissociation occurs on an individual level, as a natural process between generations. It has been reported that members of one generation show realisations of sounds that are opposed to those of the preceding generation, especially that of their parents (Wolfram and Schilling-Estes 2004). This type of reaction does not necessarily lead to a community-wide linguistic change, probably because the numbers of young people dissociating themselves from their parents at any given time does not reach a critical mass for the dissociation to become a linguistic change in the community. Furthermore, on the individual level there is probably too much variation for this to be coordinated into an item of language change in the community to which those young people belong.

2.2 Present-day Dublin English

A discussion of present-day English in Dublin necessitates a twofold division, with a further subdivision, into types. The first group consists of those who use the inherited vernacular form of English in the capital. The term “local” is intended to capture this and to emphasise that these speakers show the strongest identification with traditional conservative Dublin life of which the popular accent is very much a part. The reverse of this is “non-local”, which refers to sections of the metropolitan population who do not wish a narrow, restrictive identification with vernacular Dublin culture. This group then subdivides into a larger, more general section, labelled “mainstream”, and a further group which shows features of dissociation. For want of a better term, this group is labelled “advanced”. ¹

(2) 1) local Dublin English
2) non-local Dublin English — a) mainstream Dublin English
b) advanced Dublin English

Dublin in the early 1990s was a typical location for language change due to two convergences: (i) The city had expanded greatly in population during the immediately preceding decades; this increase was due both to internal growth and migration into the city from the rest of the country; (ii) it was undergoing an unprecedented economic boom, reflected in its position as an important financial centre and a location for many foreign firms which ran their European operations from Dublin. The increase in wealth and international position meant that many young people aspired to an urban sophistication which was divorced from strongly local Dublin life. For this reason the developments in advanced Dublin English ² diverged from those in local Dublin English and were motivated by the desire of
speakers to hive themselves off from vernacular forms of a variety spoken in their immediate surroundings.

The changes that took place in the 1990s affected the pronunciation of Dublin English. To understand what happened, and to appreciate that it was dissociation, some general characteristics of local Dublin English should be highlighted.

(3) **Salient features of local Dublin English**

1) low/open realisation of back vowels: *bought [bɑːt], boy [bɔi], stop [stɔp]
2) very low rhoticity: *bar [bæː], bark [bæːk]
3) distinction of /e/ and /ə/ before /r/: *germ [dʒɛrm], *nurse [nʌs]
4) retention of Early Modern English [u]: *sun [sʌn]
5) t-lenition: fricative to glottal stop/zero: *cat [kæt] > [kæt] / [kæ]
6) alveolarisation of dental stops: *bath [bæt] > [bæt]
7) breaking of long high vowels: *clean [kliːn], *school [skuːl]

2.2.1 **Back vowel raising and retroflex /r/** The first two features above are the most important because they occur most frequently: low/open realisations affect several common vowels and low rhoticity is obvious in every word with non-prevocalic /r/. Furthermore, low/open realisations are typical of all vernaculars of Irish English, urban and rural alike, while low rhoticity is specific to local Dublin English.

Dissociation is movement away from the speech of others, and the raising of low back vowels in advanced Dublin English in the 1990s is just such a movement. Originally, the vowel in *time* was also retracted but this was not adopted by broader sections of the metropolitan population as were the other changes. In fact, one can say that raising is the key movement for the Dublin vowel shift of the 1990s and retraction was a secondary occurrence which did not establish itself.

(4) **Summary of the Dublin vowel shift of the 1990s**

a) retraction/raising of diphthongs with a low or back starting point

*time* [tæm] → [tʌm]
*toy* [tɔi] → [tɔɪ], [tɔi]

b) raising of low back vowels

*cot* [kɔt] → [kɔt]
*caught* [kɔt] → [kɔt], [kɔt]

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Raising

| ɔi | ɔ | ɔ |
| ɔi | ɔ | ɔ |
| ɔi | ɔ | ɔ |

Retraction

| ɔi | ɔi |

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In mainstream Irish English up to the 1990s the realisation of /r/ was a velarised alveolar continuant [a], a pronunciation found in western and south-western varieties of Irish to this day, and so it can be assumed that this type of /r/ originated in Irish English from transfer of the Irish realisation of the same phoneme (Hickey 1986).

In the 1990s a retroflex [ɻ] appeared in advanced Dublin English at the same time as the vowel raising began. But why a retroflex [ɻ] when there was a velarised alveolar continuant [a] already in supraregional Irish English? The answer lies in the degree of rhoticity these segments show. If one draws a scale for rhoticity with zero on the left, then the maximum on the right is a strongly retroflex [ɻ] which is acoustically very prominent. The velarised alveolar continuant [a] is an intermediate segment, in acoustic terms. This means that the maximum degree of dissociation from local Dublin English was achieved by the retroflex realisation of /r/.

(5) Rhoticity scale for Dublin English

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<th>Low</th>
<th>[a]</th>
<th>High</th>
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<td>Ø</td>
<td>[ɻ]</td>
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2.2.2 Further items of dissociation Features three to seven in (3), above, are slightly different from back vowel raising and /r/-retroflexion. This is because they already had very different realisations in supraregional Irish English before the 1990s and so new realisations did not arise. However, there were, and still are, occasional realisations in advanced Dublin English that appear to be dissociation. Consider that local Dublin English has a very open, unrounded vowel in words like germ and girl, that is, [dʒεːm] and [gεːl]. Because this open front realisation is so typical of local Dublin English, there has been a migration in advanced Dublin English of historically front long vowels to the central rhotic type as seen in words from the SQUARE lexical set like carefully [kɛːfli] and daring [dərɪŋ]. Connected with this feature is the strict avoidance of schwa retraction before /r/ in words such as third [tɜːrd], purse [pɜːs], not [tɜːrd] and [pɜːs]. Furthermore, the /u/-vowel in the STRUT lexical set can be realised by an unrounded front vowel which is almost /i/, as in Sunday [ˈsʌni].

From the above considerations it is clear that the vowel shift is not simply an approximation to mainstream British pronunciations of English. The independence of Irish English from English in England is well established. Furthermore, there is an imperviousness in Ireland to many spreading features of British urban speech, for instance, initial H-deletion, as in hurry [ˈhʌri], or TH-fronting, as in think [θɪŋk] (Hickey 2007b).

2.2.3 Re-alignment of supraregional Irish English The features of non-local Dublin English became quickly established in the late 1990s and early 2000s and its features rapidly spread from the capital city to the rest of the Republic of Ireland. It
became a pronunciation model for young people without a strong local orientation, that is, with a new generation of supraregional speakers, with females leading the way. Because of this, the supraregional variety of Irish English has become re-aligned with low back vowel raising and /r/-retroflexion now clear characteristics along with other features stemming from Dublin English, such as a syllable-final velarised [l], as in field [fiəld], and a front starting point for the diphthong in the MOUTH lexical set, for example, house [hæʊs] / [heʊs].

3 Common Ground: Moving Away from the Vernacular

The two externally motivated processes considered in this chapter are characterised by a movement away from vernacular speech by a group of speakers. The first, supraregionalisation, is seen when a variety emerges in which features indicative of a specific location or vernacular have been removed. This variety then occupies the domain of a standard, even though it is not explicitly codified like the latter. Like a standard, it is a non-stigmatised, publicly used variety. Historically, the rise of this variety is triggered by such factors as general education and the appearance of a middle class. A supraregional variety is largely defined in phonological terms and there may be an exonormative standard for written forms. In general, a supraregional variety shows reduced variation vis-à-vis vernaculars, the latter maintaining phonological complexity as a linguistic correlate of intricate social networks (Milroy 1987).

The second process considered here, dissociation, can occur at any time when the necessary trigger is present. This can be seen with the Dublin vowel shift, which was clearly not motivated by any external influence on Dublin English, such as that of British English or American English (for details see Hickey 2003, 2007b). Furthermore, it is not internally motivated as in analogical change such as morphological regularisation. The only remaining conclusion is that it is motivated by social factors within Dublin. Dissociation in Dublin English led to the establishment of a new, non-vernacular pronunciation in the metropolis which then spread to the rest of the country. This in turn led to a realignment of the hitherto prevailing supraregional variety. Such a development shows that a supraregional variety is not static and can alter if a new, non-vernacular variety encroaches on its domain, when it becomes recognised by broad sections of the population as a non-stigmatised form of language acceptable in public usage.

NOTES

1 In previous publications, such as Hickey (1999), I used the term “fashionable” here because the new pronunciation was a recent development. Now, in 2011, this has become established for all speakers under 30, if not 35, and so another term which sug-
gests that the pronunciation is recent, but established, is required. Indeed a case could be made now for using the labels “mainstream” for the new pronunciation and “con-servative” for the older one.

These changes were registered by broad sections of the Irish population with many negative comments in public, for example in letters to newspapers, comments on phone-in programmes on radio, and so on. The changes were also given popular names, first the “Dublin 4” accent because it was associated with the affluent suburbs of south Dublin, later just the “D4” accent or “Dartspeak”, a reference to the suburban railway network that runs through Dublin, including the prosperous south part of the city.

There are some gender differences in the new pronunciation of Irish English, for example the use of a diphthong with a schwa starting point in the GOAT lexical set, for example [ˌhuəm] for home. This diphthongisation is viewed in Ireland as effeminate when used by males, see the discussion in Hickey (2005: 88–91).

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Part VIII  Sociolinguists and Their Communities
26 Community Commitment and Responsibility

WALT WOLFRAM

1 The Community of Engagement

Most language variation researchers work with communities, ranging from sharply bounded enclave communities defined by physical geography to widely dispersed populations of imagined and even virtual communities. A variety of demographic, historical, social, and psychological factors come into play in defining a community, and there are embedded, hierarchical layers of community membership as well, extending from relatively small, self-contained communities of practice to expansive populations defined by political state-nation (Patrick 2002). Even within a quite small community we find layers of community membership. The community of Ocracoke, for example, is most readily defined by topography—a small barrier island accessible only by boat off of the mainland coast of North Carolina where about 900 permanent residents live. On this small island community, as in any other community, notions of regional and social place are hierarchical as well as intersectional. People identify with communities of practice such as the Poker Group, with the immediate geographic neighborhood (e.g. Creekers vs. Pointers), and with long-term, permanent island residents—ancestral islanders or O’cockers—versus those who have vacation homes or come as tourists, dingbatters. Approximately 330 of the permanent residents are O’cockers, people whose heritage on the island extends back at least three generations, but usually much longer. But there are also larger communities in which Ocracoke is embedded as a village on the Outer Banks, and the Outer Banks is, in turn, linked to other coastal communities in the mid-Atlantic South, to mainland North Carolina, to the American South (Reed 1993, 2003), to the United States, and so on. So when we talk about working with communities we have to recognize that the levels of
community engagement involve multiplex, embedded notions of community that extend from a small group of people who share interpersonal relations within communities of practice and social networks (see Meyerhoff and Strycharz, Milroy and Llamas, this volume; Milroy 1987) to abstract, conceptually constructed institutions. All levels of community are open for engagement by those who desire to give back to the community, though the nature of the researcher-community relationship will vary drastically, as will the personal involvement of the researcher with the community.

Social commitment by variationists is hardly new, and researchers have been committed to the linguistic, social, and educational well-being of the communities they research since the modern inception of the field. In fact, most of the pioneering variation studies in the United States in the 1960s and 1970s were justified on the basis of underlying social and educational concerns (e.g. Labov et al. 1968; Shuy, Wolfram, and Riley 1967; Legum et al. 1971; Wolfram and Christian 1975), and a majority of the early funding came from educational agencies such as the US Office of Education and National Institute of Education. The legacy of socially responsible linguistic study thus seems well established in the field, and some variationists have figured prominently in national and local debates related to language differences. One of the attractions of the field for some researchers is its potential for combining field-initiated research with a sociopolitical agenda committed to the advancement of sociolinguistic equality (Guy 1993; Schilling-Estes 2008). The range of opportunities and the nature of social responsibility have shifted somewhat over the past half-century of the language variation enterprise, but the resolve of sociolinguists to use their data to address social and linguistic inequalities has remained fairly consistent throughout the history of the discipline.

At the heart of the concern for public education about language diversity is a commitment to sociolinguistic equality. The position assumed here is that language is often used as a tool of social oppression and that socially responsible linguists have an obligation to address language-related inequalities. This stance is not necessarily shared with other linguists, and seems to be contra the position set forth by Noam Chomsky, who observes in an interview with Olson and Faigley (1991):

You’re a human being, and your time as a human should be socially useful. It does not mean that your choices about helping other people have to be within the context of your professional training as a linguist. Maybe your training just doesn’t help you to be useful to other people. In fact, it doesn’t (Olson and Faigley 1991: 30 emphasis added).

Though Chomsky is, of course, well known for his dual commitments to linguistic theory and political activism, he apparently sees these roles as highly compartmentalized and unrelated. The position taken in this chapter is that professional knowledge is integral to our concern for social equality, and this should inform our support for sociolinguistic equality. Our commitment to sharing our linguistic knowledge with our communities of study, and with society more generally, of
course raises many issues and questions, both practical and theoretical. In what follows, we discuss some of the various concerns as well as how we have and might address them.

2 Representing Linguistic Research in the Community

Given the relatively complex and technical nature of most sociolinguistic analyses, what aspects of our research do we share and how do we share them? At the very least, the community should know about the general nature of the studies we conduct and how they might relate to possible community interests. In the process of sharing sociolinguistic findings, information naturally has to be disseminated in non-technical ways that are sensitive to the concerns of the community. It is essential that the community of lay people, however it is defined, not be overwhelmed with technical details and sociolinguistic jargon. Communicating information in a way that is accessible to lay audiences is a formidable challenge for most sociolinguists, and there is a natural tension between the specialized expertise of the linguist and community perspectives on language. Vernacular norms for language usage within the community may stand in opposition to those of mainstream, Standard English varieties; however, many communities nonetheless orient toward mainstream language ideologies, despite conflicts that often arise (e.g. Lippi-Green 2012; Preston 1997; Wolfram and Schilling-Estes 2006). In most cases, communities do not want linguistic traits of their speech that are devalued according to mainstream norms to be highlighted in linguists’ representation of their language.

At the same time, linguistic experts need to format carefully their presentation in such a way that erroneous impressions, negative stereotypes, and linguistic myths are not perpetuated within the community. The effects of linguistic subordination are deeply entrenched and pervasive, and just about all vernacular-speaking, non-mainstream communities suffer from a collective perception of linguistic inferiority aligned with mainstream language ideologies. Native community members may be intriguing as speakers, storytellers, and interpreters of local traditions, but they cannot be expected to share the linguist’s approach to language differences and description.

On the other hand, residents have expertise in local traditions and livelihood that far exceeds the knowledge of linguists in these areas, and it is important for researchers to acknowledge this on a practical level. Acknowledging disparate areas of expertise by linguistic specialists and by community participants assists in establishing an egalitarian working relationship in collaboration. As one local fisher said to me after watching me fail to tie an appropriate knot to secure a boat, “Walt, you’re the dumbest smart guy I’ve ever seen.” Sociolinguists cannot be proud; we need to genuinely recognize and acknowledge our areas of incompetency in local culture and customs as part of our working relationship with communities. Linguists may have specialized expertise in one domain of knowledge,
but it is a selective area that needs to be counterbalanced and complemented with local cultural, social, and historical knowledge that communities bring to engagement activities.

3  Principles of Engagement

Given the history of social concern, it is not surprising that sociolinguists would be sensitive to the relationships that researchers develop with the communities where they conduct their research. Cameron et al. (1992) define several different kinds of relationships between researchers and the communities they research, including ETHICAL RESEARCH, ADVOCACY RESEARCH and EMPOWERING RESEARCH. Ethical research assumes that there is minimal inconvenience to participants and that the subjects are adequately acknowledged for their contributions. Advocacy-based research is characterized by a “commitment on the part of the researcher not just to do research on subjects but research on and for subjects” (Cameron et al. 1992: 14). Empowering research involves research on, for, and with the community in light of the fact that “subjects have their own agendas and research should try to address them” (Cameron et al. 1992: 14). Regardless of how sociolinguists define their relationship to their communities of research, there is an increasing sense of obligation in the social sciences for researchers to give back to the communities and populations who have provided the data for research. As Rickford (1999: 315) notes:

The fundamental rationale for getting involved in application, advocacy, and empowerment is that we owe it to the people whose data fuel our theories and descriptions; but these are good things to do even if we don’t deal directly with native speakers and communities, and enacting them may help us to respond to the interests of our students and to the needs of our field.

The obligation of sociolinguists to research communities can be summarized in Labov’s well-known PRINCIPLE OF ERROR CORRECTION (1982: 172) and PRINCIPLE OF DEBT INCURRED (Labov 1982: 173), as well as Wolfram’s PRINCIPLE OF LINGUISTIC GRATUITY (1993: 227). Labov’s principles are primarily reactive in that they focus on the obligation of linguists to expose misunderstandings and misinterpretations about language “to the attention of the widest possible audience” (Labov 1982: 172) and to “use knowledge based on data for the benefit of the community, when it has need for it” (Labov 1982: 173), whereas Wolfram’s gratuity principle is more proactive in urging researchers to “pursue positive ways in which they can return linguistic favors to the community” (Wolfram 1993: 227).

On a national level, prominent sociolinguists have been at the forefront of public debates about the linguistic legitimacy of vernacular dialects (Labov 1969; Rickford and Rickford 2000; Baugh 2000), applying Labov’s (1982) principles of error correction and debt incurred. Many of the debates in North America have involved broadly based ethnic or regional varieties of English, for example, African
American English (AAE), Hispanic English, Native American English, or Appalachian English. Linguists have also been involved in national debates about bilingualism and language endangerment, including the Bilingual Education Act of 1968 and court cases such as *Lau v. Nichols* (1974), a civil rights case brought by Chinese-American students in San Francisco. In this case, limited-English-proficient (LEP) students and their parents claimed they were entitled to special help under Title VI of the Civil Rights Act of 1964 because of its ban on educational discrimination on the basis of national origin. The US Supreme Court in 1974 (414 US 563) ruled in favor of the students, thus expanding the rights of students nationwide with limited English proficiency. The *Lau v. Nichols* case, as well as the so-called Ann Arbor case (1979) in which a group of African-American plaintiffs filed a complaint against the Ann Arbor School Board for not taking their children’s dialect into account when teaching reading, reflect the point of view that a person’s language is so closely intertwined with national origin and ethnic background that language-based discrimination is, in effect, a proxy for national origin and racial discrimination.

Engagement in national debates about language is an essential dimension of promoting language awareness, and one that has involved variationists since the earliest difference vs. deficit debates (Labov 1969) to the debate about linguistic profiling in the early 2000s (Baugh 2003). Notwithstanding the need for sociolinguists to be involved on all levels of public engagement, the majority of our discussion here will focus on more locally situated communities where researchers interact with community members on a regular basis vis-à-vis their more impersonal roles in national debates played out in the media (Wolfram, Reaser, and Vaughn 2008). Theoretically and practically, of course, we consider the diverse roles and levels of engagement to be complementary and synergistic.

### 4 Initiating Opportunity

The dictum “if knowledge is worth having, it is worth sharing” (Cameron *et al.* 1992: 24) seems like a relatively straightforward and uncontroversial principle to guide social science researchers. Most researchers are understandably focused on publishing the results of their research for their professional colleagues, and it is not customary for social scientists to go back to their research communities and share the results of their studies in a way that is relevant to the community. But sharing sociolinguistic research with a scholarly community and the researched community are not mutually exclusive, and it seems like a questionable ethical practice to exclude the researched community from sharing in the results of studies in which they participated. But what should sociolinguists share with communities about their research and how can knowledge from their studies possibly benefit the community? How can professional research knowledge, which tends to be highly technical and abstract, dovetail with practical community interests in a collaborative relationship? How do researchers navigate established community institutions, agencies, and personalities within the community as they
seek to establish outreach programs? Unfortunately, there are no set protocols and no standard guidelines that ensure successful collaboration with communities. Our own efforts in community collaboration have run the gamut – from highly positive, decades-long collaborative relations with communities to embarrassing failures in implementing proposed programs designed to give back to communities (Wolfram, Reaser, and Vaughn 2008).

The types of opportunities for researchers to practice linguistic gratuity will vary, depending on the community targeted in the research, but no level of community is exempt. In fact, “broader impacts” is one of the required sections of responses on all US National Science Foundation research proposals, though it is sometimes treated as a tangential obligation rather than an opportunity to reflect on how information from a research project might address broader social, educational, and political concerns. As noted above, the range of outreach rightly extends from the broadest level of national and international public information programs to highly localized, participatory interpersonal activities. The participation of sociolinguists such as William Labov, John Baugh, Carmen Fought, and others as linguistic experts in media coverage of language-related news stories and documentaries for national audiences in the United States (e.g. MacNeil and Cran 2005) and the appearance of linguists such as Sali Tagliamonte and Charles Boberg on Canadian TV and radio programs, as well as documentaries on diversity in American Sign Language (ASL) produced by Ceil Lucas and her colleagues (e.g. Lucas, Bayley, and Valli 2003; McGaskill et al. 2011) provide significant opportunities to educate the general public about language variation – and an important level of practicing linguistic gratuity at its most expansive, public level. The public dissemination effort might derive initially from a press release by the university or funding agency picked up by media representatives looking for newsworthy stories, but their impact can be extensive. Participation in these opportunities is vital in terms of our social commitment and public responsibility as researchers, and some of these opportunistic occasions have provided essential information about language diversity for the millions of public viewers and/or readers. At the other end of the spectrum are efforts that plan programs and activities for a particular community of study, community organization, or community of practice within the research population, such as the various community outreach programs carried out by the North Carolina Language and Life Project (NCLLP) (Wolfram 2007). One of the hallmarks of NCLLP is its commitment to connect with the community at the outset of their research to determine how it might serve the community even before the research begins so that engagement with the community is simply one phase of the research project.

5 Themes for Public Sociolinguistics

Connecting variation research with public interests and concerns is at the core of any sociolinguistic outreach program. As we have seen, there have been a number of broad-based, national concerns as well as a variety of community-based, local
issues that suggest an underlying set of public-interest issues that might derive from our research. In this section, we consider some of these unifying themes that recur in outreach and engagement programs.

Information that seems counterintuitive to commonsense assumptions about language often piques public curiosity, though such information may also engender controversy because it often stands in opposition to popular beliefs about language differences. For example, when one of the first national controversies erupted over the nature of language variation in non-mainstream varieties in general and AAE in particular (Baratz 1968; Labov 1969), the notion that AAE was rule-governed and systematic was in opposition to commonsense language beliefs. Though the systematic patterning of language is a primitive, fundamental axiom that is indisputably obvious to linguists, it is hardly accepted by a public socialized into the principle of linguistic subordination (Lippi-Green 2012) where the varieties of a language spoken by socially subordinate groups are interpreted as unsystematic, ungrammatical deviations from the standard. Though this was the core of one of the first national media debates about language variation over a half-century ago, the deficit assumption still lingers in many social and educational venues a half-century later.

Other findings counterintuitive to popular beliefs tap into the natural curiosity the public has about language differences. One of the reasons that the work of Labov and his colleagues on the vowels of contemporary American English (Labov 1991; Labov, Ash, and Boberg 2006) has led to so much media coverage is because it counters the commonsense assumption that dialects of American English are vanishing because of the influence of the media. The fact that the Northern Cities Vowel Shift results in greater divergence among North American dialects is thus an item of popular interest – and an opportunity to educate the American public about the dynamic nature of diversity. Of course, the challenge for sociophoneticians is to present this information in an accessible way rather than resorting to the technical jargon they are accustomed to using in academic circles. Some variationists have invested considerable creative effort to come up with metaphors of physical space, domino effects, and rotational schemes to explain such vowel shifts to lay audiences. These are not wasted efforts if we are serious about communicating with public audiences concerning the intricate dynamics of vowel shifts.

As might be expected, research on socioethnic divergence and post facto explanations for division across ethnic groups are much more controversial, even among linguists (Fasold 1987). Given the sociopolitical status of race and ethnicity in society, issues related to socioethnic diversity are always socially and politically sensitive, though they provide special opportunities to share sociolinguistic information with the public. Sometimes, controversy cannot be avoided, but the approach to media presentations adopted by NCLLP is to “fly under the ideological radar” (Wolfram, Reaser, and Vaughn 2008) if at all possible, and to frame ethnolinguistic diversity in a positive context. We have found that positively framed presentations about language differences have a greater likelihood of being received by the public than presentations that directly confront seemingly
unassailable ideologies related to linguistic subordination. Associating linguistic issues with positive cultural images and using strategic sequencing in the presentation of information can foster the reception of potentially controversial linguistic ideas (Wolfram 2010). Thus, a documentary on North Carolina language varieties (Hutcheson 2005) broadcast on the state affiliate of the Public Broadcasting Service (PBS) presented positively framed narration regarding history and culture, appealing images of historic and current historical landmarks and interpersonal interactions, and upbeat local music to introduce the subject of AAE, the most controversial dialect in the United States. In addition, AAE was intentionally introduced in the documentary only after the presentation of two regional varieties of English (Outer Banks and Appalachian) and two other sociocultural language varieties (Cherokee and Lumbee English). The synergistic effect of the visual images, the music, and the narrative created a highly positive image of place and people into which language could then be seamlessly situated. In the presentation, we carefully avoided red-flag labels, such as the term “Ebonics,” and hot-button controversies such as the relationship of AAE to literacy, since the intention was to link language variation with sociohistorical legacy. The response to the documentary was exceptionally positive, and we did not receive a single complaint about our presentation of AAE.

The notion that audiovisual material about language should be entertaining may seem somewhat superficial to those accustomed to classroom instruction and academic presentations focused on the transmission of knowledge, but language-related productions in the media do indeed compete with other types of entertainment. One of the reasons that the documentary *American Tongues* (Alvarez and Kolker 1986) has been effective for 25 years is its entertainment value. The striking dialogue and humor serve as a non-confrontational way to open candid discussions about language differences at the heart of linguistic diversity. A more recent episode on language variation in the United States (“Out of the Mouths”) in the series *How the States got their Shapes* on the History channel (2011) also uses humor and the natural human curiosity about language variation to engage the viewing audience. Viewers enjoy seeing and hearing diverse language varieties used by ordinary people in lively, natural settings, and will stay tuned if language diversity is presented in a generally appealing format.

One of the opportunistic themes for sharing sociolinguistic knowledge is the link of language variation to sociohistorical legacy. One can hardly observe culture and history without considering the iconic role of language in the development of diverse populations. As one Cherokee language speaker put it in *Voices of North Carolina* (Hutcheson 2005), “Language is culture and culture is language.” When language diversity is associated with other aspects of history and culture, such as settlement history and cultural traditions like music and dancing, a meaningful, practical context is established for the presentation of language differences. Though the general public may neither understand nor value the obsession of linguists with technical structural detail, everyone can appreciate and identify with the symbolic role that language plays in historical, regional, and cultural development. This is one of the reasons that much of the outreach activity of the
NCLLP, for example, has involved collaboration with preservation societies, museums, and civic organizations. When language is linked with culture and history, its significance for the public is heightened.

Sharing information about language variation is not restricted to sociohistorical legacy, but can seize on the dynamics of language change itself. Popularly recognized changes in progress provide a convenient opportunity for disseminating information to the public about the nature of variation and change. For example, taking advantage of the iconic, rapid acceleration in the use of quotative *be like* in English around the world (Tagliamonte and Hudson 2009) or the use of innovative intensifiers on television programs (Tagliamonte and Roberts 2005) affords variationists an occasion to share information publically about language change and diffusion. Accordingly, newspapers and broadcast media have produced a number of special-interest stories on this topic. On a local, community level as well, there is an inherent interest about changes in progress, so information about language evolution, recession, and death offer a convenient opportunity to educate the public about language change and diversity.

In reality, most topics of sociolinguistic inquiry are of interest to the community and the general public if they are presented in a way that connects with the natural curiosity that people have about language as a type of behavior. Knowing how to package such information in a way that seizes on this natural interest, however, is a specialized skill that does not align with the technical level of most linguistics presentations and academic registers. Working collaboratively with journalists, designers, and producers, along with community partners, can result in a highly productive, symbiotic relationship for researchers, community members, and creative artists in a “triadic collaborative synergy.”

6 Venues of Outreach and Engagement

There is a wide range of activities and programs that qualify as outreach and engagement, from opportunistic-based, teachable moments that arise spontaneously from current news events, to planned programs for formal education. With recent advances in technology, more options for sociolinguistic outreach have become accessible to sociolinguists as they work with partners in the creative arts in a variety of ways. Though some sociolinguists may work with allied professionals such as educators, attorneys, and policy makers, they are not as accustomed to working with designers, artists, and marketing specialists. Expanding the vision of professional collaboration, however, offers the potential to create attractive public outreach products such as TV documentaries, museum exhibits, audio CDs, articles and books for popular audiences, and even dialect curricula for formal public education. In the case of the NCLLP, a fulltime videographer has been on the staff for over a decade now, and designers and marketing experts have worked with the program on a regular basis. These alliances have resulted in a regular outreach program that has become publicly recognized around the state and beyond.
Video documentaries produced with and on behalf of local communities are becoming an increasingly realistic option for outreach and engagement programs. NCLLP productions range from special TV programs that have aired nationally or on the state affiliate of the PBS (e.g. *Indian by Birth: The Lumbee Dialect* (Hutcheson 2001); *Mountain Talk* (Hutcheson 2004a); *Voices of North Carolina* (Hutcheson 2005); *The Carolina Brogue* (Hutcheson 2009); *Spanish Voices* (Cullinan 2011)) to those produced primarily for community organizations (e.g. *The Ocracoke Brogue* (Blanton and Waters 1996); *Hyde talk: The Language and Land of Hyde County* (Torbert 2002), though local and broader-based audiences are not mutually exclusive. Sometimes, collaboration can extend to topics beyond language as a natural extension of partnerships with communities that may have goals and agendas different from our sociolinguistic ones. NCLLP documentaries have ranged from short promotional features about a community (e.g. *Celebrating Princeville* (Hutcheson 2003)) to the celebration of people and events that are important to community members (e.g. *Princeville Remembers the Flood* (Rowe and Grimes 2005); *Celebrating Muzel Bryant* (Grimes 2004)). Fortunately, high-quality video recording equipment and editing software that are highly portable, user friendly, and quite affordable, are now widely available, making video documentary projects quite feasible for students and faculty to produce at modest expense and often with only a moderate level of technical expertise. In producing short documentary features, we need to consider working collaboratively with major commercial TV networks as well. Thus, when the producers of the show *CBS This Morning* contacted us about producing a feature on “Southern dialect,” we worked with them to set up interviews with Ocracoke residents and guided them in coordinating with the local school to document the teaching of our dialect curriculum (Reaser and Wolfram 2007a, 2007b). The result of this venture was a major feature on receding dialects (“Are Americans losing their Dialects?” http://www.cbsnews.com/video/watch/?id=7409252n&tag=contentMain;contentBody) hosted by correspondent Mo Rocca and produced by the *CBS This Morning* crew. Some of the footage in the feature was taken from our other productions with our permission in this collaborative venture.

The audio CD is another popular venue – and one of the most authentically collaborative activities with communities. In collaboration with the Ocracoke Preservation Society, for example, the NCLLP has produced a couple of CDs with accompanying booklets (Childs, Wolfram, and Cloud 2001; Reaser et al. 2011) that help document and preserve local traditions, stories, and history. Projects that merge oral history and sociolinguistics are becoming more popular (Kretzschmar et al. 2004; Hutcheson 2004b, 2006; Mallinson, Childs, and Cox 2006), and community members can play an active role in the selection of speakers, topics, and recommendations for additional community members to be included in the audio compilation. Again, readily accessible and usable recording equipment and editing software makes this possibility quite convenient for students and staff.

The community-based museum exhibit is a particularly productive venue for collaboration since it typically involves the donation of artifacts, images, and other memorabilia from the community itself. Such exhibits offer a venue for the presentation of local culture and history for visitors at the same time that they celebrate
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the local community life and language. With the cooperation of community-based preservation societies and museums, it is possible to construct permanent exhibits that highlight language diversity (Gruendler and Wolfram 1997, 2001), as well as limited-time exhibits on history, culture, and prominent citizens in the community (Vaughn and Wolfram 2008). Thus, an exhibit titled Freedom’s Voice: Celebrating the Black Experience on the Outer Banks (Vaughn and Grimes 2006) includes images, a documentary, interactive audiovisuals, artifacts, audio clips first recorded for sociolinguistic interviews and re-appropriated as oral histories, and informational panels that highlight African Americans’ involvement in the history of coastal North Carolina. This exhibition, which ran for a year (2008–2009) brings together history, culture, and language through narrating the story of the largely invisible contributions of African Americans on Coastal Carolina, particularly on Roanoke Island, the site of the “Lost Colony.” One of the most successful exhibits for the NCLLP is a booth at the annual North Carolina State Fair that has an annual attendance of over one million. Video vignettes, an interactive monitor enabling visitors to guess the regional location of various North Carolina speakers, and give-away buttons (e.g. “dingbatter,” “I speak North Cackalacky,” “sigogi-lin,” “buddyrow”) are very popular with attendees; in fact, we give out approximately 10,000 buttons a year. This is now an annual exhibition that is staffed by students as part of a service-learning activity.

There are also activities related to writing for popular audiences, ranging from books and articles for broad-based audiences (e.g. Tannen 1990, 2006; Rickford and Rickford 2000) to those geared more towards specific language communities (Wolfram and Schilling-Estes 1997; Shores 2000; Wolfram et al. 2002; Wolfram and Reaser forthcoming). For the most part, such works are written about communities rather than with community members, although the book Fine in the World: Lumbee Language in Time and Place (Wolfram et al. 2002) was co-authored with the director of the Lumbee community-based Museum of the Native American Resource Center, Stanley Knick, and with the Director of Native American Indian Studies at the University of North Carolina at Pembroke, Linda Oxendine, a well-respected leader in the Lumbee community. While neither are linguists, they provided important advice on how to present linguistic perspectives in a way that would maximize receptivity by community members.

More directly, it is possible to produce community-based dialect dictionaries (e.g. Locklear et al. 1996; Schilling-Estes, Estes, and Premilovac 2002). These are one of the most collaborative language activities possible, since they are tangible products that community residents can understand with minimal background sociolinguistic information. They can further engage local residents meaningfully in the collection of data and in some aspects of the compilation process, and “first editions” can be produced in a relatively short time, with additions included on an ongoing basis. In fact, we have found that local community members become more proactively engaged in this activity than in any of our many other language-related projects. Local residents and visitors find these dialect dictionaries to be of considerable enjoyment and engagement, and community members truly assert ownership over knowledge of the local lexicon far more so than with any other level of linguistic diversity. Fifteen years after we produced a modest dialect
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dictionary for Ocracoke English, I still have a couple of residents who regularly comment, “Walt, I thought of a new word used here on Ocracoke,” and there is now a Facebook group organized for “Ocracoke Expressions.”

One of the most ambitious and essential outreach programs for sociolinguistics involves the development of formal curricular materials on language diversity in the public schools. Unfortunately, formal education about dialect variation is still relatively novel and somewhat controversial, and school-based programs have still not progressed beyond a pilot stage (Reaser 2006; Sweetland 2006). The examination of dialect differences offers great potential for students to investigate the interrelation between linguistic and social diversity, including diversity grounded in geography, history, and cultural beliefs and practices. There are a number of creative ways in which students can examine how language and culture go hand-in-hand as they address language diversity. The dialect awareness curriculum developed by Reaser and Wolfram (2007a, 2007b) naturally fits in with the standard course of study for the state of North Carolina for eighth grade social studies (http://www.ncpublicschools.org/curriculum/socialstudies/scos), which includes the curricular themes of “cultures and diversity,” “historic perspectives,” and “geographical relationships” as they relate to North Carolina. In addition, the dialect awareness curriculum helps fulfill social studies competency goals such as “Describe the roles and contributions of diverse groups, such as American Indians, African Americans, European immigrants, landed gentry, tradesmen, and small farmers to everyday life in colonial North Carolina” (Competency Goal 1.07) or “Assess the importance of regional diversity on the development of economic, social, and political institutions in North Carolina” (Competency Goal 8.04). Students are not the only ones who profit from the study of dialect diversity. Teachers also find that some of their stereotypes about languages are challenged and that they too become more knowledgeable and informed about dialect diversity.

Lectures and workshops by linguists on dialect variation in different communities are relatively common now, including presentations for cultural preservation and historical societies as well as for other special interest groups. Workshops on dialects for teachers and schoolchildren and special presentations at museums and historical societies have also been conducted, including many now requested by the community. Barbara Johnstone, who has conducted extensive research on Pittburghese over the last decade, reports (Johnstone 2009, 2011) that she has given about 50 presentations to civic and community group organizations in the Pittsburgh area since the onset of her research there, demonstrating how communities can become engrossed in the role of language and people’s sense of place. In some communities, this work may be highly collaborative and visible on a public level, with strong public support from community agencies.

7 The Collaborative Effort

In smaller communities and social networks where the presence of alien researchers is highly conspicuous, sociolinguists have no choice but to present themselves
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at the outset of the fieldwork. Initial visits to field sites can thus be quite strategic, and ideas for potential collaboration between sociolinguists and the community need to be proactively presented. During our initial field visit to conduct sociolinguistic interviews on the island of Ocracoke, we sought out the President of the Ocracoke Preservation Society (OPS) and the principal of the school to explain our study and to offer ways in which we might work with these institutions. The offer to talk to the students at the school was accepted, and led within a year to the development of a week-long curriculum on dialect awareness that has now been taught annually for more than two decades. And the initial visit with the President of the OPS during our first fieldwork trip has turned into the collaborative compilation of two oral-history CDs (Childs et al. 2001; Reaser et al. 2011), three video documentaries for local use and regional public TV (Blanton and Waters 1996; Grimes 2004; Hutcheson 2009), two permanent exhibits in the museum (Gruendler and Wolfram 1997; Vaughn and Wolfram 2008), and a trade book on the language variation on the Outer Banks (Wolfram and Schilling-Estes 1997). All of this coincided with our highly detailed, technical analysis of language change and recession in dialect enclaves. At the same time, other offers to give back to communities have been declined for a variety of reasons, though the more common response of communities is the acceptance of information and engagement at a selective level of collaboration. Most communities don’t turn down free gifts.

There are inevitably issues of interpersonal relations and ethics in working with communities as we conduct our research, including the preservation of anonymity. In some fields of social science it is considered unethical to identify the specific community of study. Identifying a minority community or socially marginalized groups in some nations may lead to unwelcome attention from a dominant political group, so research anthropologists conventionally mask the identity of their research communities in order to protect them from social and political harm. In sociolinguistics, it is traditional to identify large-scale, metropolitan communities (e.g. Philadelphia, Detroit, Toronto) where anonymity is relatively easy to preserve, but some smaller communities may be assigned fictitious names (e.g. Cukor-Avila 1995; Burkette 2002), usually at the request of the community members or at the discretion of the researcher.

Despite Institutional Review Board guidelines that typically mandate that researchers protect the anonymity of research subjects, this issue is not as straightforward as it appears at first glance. How can the researcher actually protect the identity of one-of-a-kind subjects, as with the case of the last African American living on Ocracoke Island in the 1990s and 2000s (Wolfram, Hazen, and Tamburro 1997). And what about subjects who wish explicitly to be identified by name, such as Rex O’Neal, known in sociolinguistics for his exaggerated performances of the Ocracoke “brogue” (Schilling-Estes 1998) and now also well known by the regional media as a local figure to be contacted on topics ranging from hurricanes to local speech? In working with small communities, it is virtually impossible – and sometimes not even desirable – to keep speakers anonymous. While sociolinguists need to comply with IRB guidelines and preserve the anonymity of participants as research subjects, it is possible to have community members sign release forms
allowing the use of their voices, faces, names, and other identifying information specifically for media dissemination after the research is completed. It is further possible for community members to remain anonymous as research participants while naming them in media productions of various types with their permission.

The interpersonal, collaborative relationship between linguistic researchers and community members is always complicated, as the respective parties bring to the project different backgrounds, diverse areas of interest and expertise, variant understandings of language and other behavioral phenomena, and goals and concerns that might be quite varied – and in some cases, in conflict. Furthermore, communities are hardly harmonious, consensual social organisms, so sociolinguists have to negotiate interaction with factions within communities. Engagement in the initial conceptualization of the outreach project gives the community a vested interest in the project from the onset. In some cases, planning with community representatives has led to a significant reconceptualization of outreach plans. In fact, in one media project, initial discussion with community representatives resulted in the production of a documentary on the historical development of the community (Princeville, NC, the first town incorporated by African Americans in the United States) rather than a language-based documentary on the local, rural variety of AAE. Enabling the town’s residents to promote their interest in presenting their history through a NCLLP documentary (Rowe and Grimes 2007) earned us entry into the community to conduct our research, but of course the negotiations also led us away from a sociolinguistic documentary per se. If we are serious about working with communities, then they must be active in decision-making about the nature of the gratuity project itself – even if it may move us away from our vested interest in the presentation of language variation.

The selection of participants to represent a community is an important but highly sensitive issue. In small communities, local leaders have to participate, but it is also important not to limit selection only to those community members who have roles as external agents for the community (Briggs 1986) or represent local power hierarchies. It is important to consult with community members who have little or no vested political interest within the community and to represent a bottom-up perspective of the community to complement community agents who represent the community to outsiders from the top down. Both local organizations and individuals independent of these organizations need to be engaged in collaboration. Historical and preservation societies often play a significant role in small, rural communities (and sometimes even in urban neighborhoods), and several of the most active, ongoing partnerships have taken place under the auspices of these community agencies. Preservation societies, historical societies, and museums often share values about cultural and historical legacy that can extend to language legacy. The perception that culture, history, and language are inseparable is a common theme voiced in interviews with community residents and serves as one of our focal points for establishing collaborative projects. In fact, the link between language and social and regional place is arguably the biggest sociolinguistic enticement we offer these organizations.
Even the smallest community is not free of internal political conflict. While taking a public, neutral stance towards internal community conflict, factions have to be accommodated in the participatory process. During the production of a film and museum exhibit, we had to confront rival tribal groups within the Lumbee community who were in litigation about the right to represent the Lumbee tribe. In this instance, we simply asked members from both groups to serve on our advisory panel to ensure that both groups were represented in the selection of spokespeople for the tribe. Political neutrality, compromise, and diplomacy must characterize community engagement as we navigate a path directed towards representing the broad range of community interests.

It is not enough to consult with community members in the conceptualization of the project; it is also necessary to involve them as the product is being shaped and before it is released publicly. This does not mean that the community should micro-manage the program, but outreach projects should involve community critique of emerging products while there is still ample time for feedback. Typically, we show the first rough design of a product to a formal or informal advisory group of community members, and show our penultimate version of the production to a number of different groups, including community members, linguistic students, non-linguistic students, and other focus groups that represent general public audiences. Often, the director, producer, and executive producer will have specific questions about the representation of the community in particular scenes. In the portrayal of the Cherokee language in the documentary *Voices of North Carolina*, there is an interview in which the interviewee mocks the beautiful names (e.g. “Floating Eagle Feather,” “Princess Pale Moon,” etc.) appropriated by Cherokees in the commodification of Indianness for tourists. The producer and staff of NCLLP were unsure if this reference might be offensive to some people within the community and so several Cherokee leaders were asked directly about their feelings (Wolfram 2010). Somewhat surprisingly to the producer, the leaders were adamant in their insistence about including this clip in the final version of the documentary. Up to the very end of the final edit – and sometimes beyond – there is a need to remain actively engaged with community members in collaborative engagement.

8 The Research Mission

Working with communities to share knowledge about language variation is potentially one of the most rewarding aspects of the profession. It should not, however, be viewed as an incidental by-product of our professional research, but integral to our mission as researchers who have a responsibility to address persistent social concerns and community interests related to the role of language in society. It also provides a unique opportunity for a network of collaboration that extends from community members and agencies to creative designers, artists, producers, and even marketing agents, all working together to make a difference in how information about linguistics is communicated to public audiences. Historically, linguistics
has not done a very effective job in informing the public about language, and the
discipline is often viewed by the public as an esoteric field of inquiry that serves
no useful purpose. If the field wishes to sustain itself and expand, it must do a
more effective job of public presentation. Language variationists can lead the way.

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We are proud to endorse Walt Wolfram’s call for the continued, expanded, and positive involvement of sociolinguists in their communities.

With the last chapter in this Handbook, we believe we have come full circle. Our authors have examined all aspects of the study of sociolinguistics, from the practical to the analytical to the theoretical, as well as the many linguistic, social, and natural forces, structures, and dynamics that impact upon language variation and change. Though we have delved deeply in the course of this book into intricate methods, detailed findings, ingenious explanations, and expansive theories, in the end we arrive at the place where we started – the community setting in which “socially realistic linguistics” ultimately resides.

We began by laying the groundwork for the sociolinguistic explorations presented in this book with an overview of sociolinguistic fieldwork, from planning to process to the all-important consideration of the researcher’s role in and relationship to the community of study. An integral part of all of our professional lives involves the basic ethical treatment of research participants – obtaining institutional approval for our projects, preserving the anonymity of participants, and submitting our designs to independent evaluators. More than that, of course, good fieldworkers recognize the crucial importance of going beyond the basics and becoming actively involved in one’s research community in order to gain the “insider” perspective that, when coupled with our “outsider” status as researchers, yields our fullest understandings of the interrelation between language and its myriad social settings.

Obtaining good linguistic and social data is certainly a crucial motivation for any fieldworker’s involvement in the community. However, in the final chapter, we focus on reasons for community involvement that go well beyond the scientific
rationale. Walt Wolfram’s comprehensive, thoughtful, and inspiring discussion and exemplification invokes many ways in which sociolinguists can conceptualize their involvement. As scientists, we are ethically bound to disseminate our scientific understandings to as wide an audience as possible, most urgently perhaps beyond academia. This may be more pressing in linguistics than in many other disciplines, since misunderstandings about the nature of language and dialect variation abound and are often used as justification for unjust attitudes and practices in education, housing, employment, the law, and other arenas.

Beyond our scientific commitment to sharing knowledge, we as sociolinguists also have to keep in mind where we get our knowledge from in the first place. The communities we work in generously share with us their voices, experiences, and perspectives, and often also their fears, their sorrows, and their joys. We feel the need to be generous in turn, by giving back to the communities. “Giving back” can take many forms, from “user friendly” presentations on matters pertaining to language variation and change, especially on matters of regional import and local pride, to non-linguistic favors such as volunteering in local schools or community centers, to simply being there to lend a listening ear.

Debt notwithstanding, the predilections that attract many of us to sociolinguistics in the first place often dispose us to social goals. We are inclined to work for the betterment of our research communities and society at large, simply because we know it is the right thing to do. As the chapters in this book demonstrate so cogently, our field has been particularly fruitful and continues to thrive because it is uniquely situated at the crossroads of the social and the linguistic. Its practitioners are vitally interested in both scientific and societal concerns. The best of our work strikes an intricate balance between science and humanities.

As Weinreich, Labov, and Herzog first taught us more than a generation ago, language is the property of the community, not the individual, and if we truly want to understand it, we are utterly dependent on the community. The authors in this Handbook are among the world’s leading scholars in sociolinguistics, but for most practitioners and students in our discipline, perhaps for all of us, the learning experiences that most profoundly shape our professional lives will not come from the pages of this or any other book but rather from our experiences in the field. For it is in our community interactions that we come upon people who, with little or no fanfare, serve as some of our wisest, patient, and caring mentors, associates, and teachers.