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Sociolinguistics: Models and Methods

1.1 Data and Theory

This book focuses primarily on the methods and theories underlying the quantitative paradigm of sociolinguistic research pioneered by William Labov, with the goal of providing a resource for investigators who are setting up a research project, large or small. This tradition of research is sometimes called *variationist*, to distinguish it from other sociolinguistic subfields. We consider in subsequent chapters data collection, analytic procedures, and interpretation of results, with continuing attention to the theories and assumptions underlying research practice. Like all fields of enquiry, variationist theory has developed a distinctive orientation to its object of investigation (i.e., human language), and a distinctive set of research questions which, while not always explicitly articulated, provide the characteristic focus of those investigations. Variationists do not of course operate independently of other branches of linguistic science, nor indeed of other kinds of sociolinguistics. Furthermore, their orientation, and sometimes the assumptions underlying their theories, are often best understood with reference to historical antecedents.

Mindful of these observations, we have approached the task of writing this book with the conviction that effective researchers need to develop an awareness of the assumptions underlying practice in their fields, so that they may, if necessary or appropriate, coherently query those assumptions. They also need to develop an ongoing awareness of the relationships between their own fields and others – and of the historical antecedents that have shaped their field – sometimes by providing a framework against which practitioners react. A clear example of such a reaction is the critical stance of Labov's early work to what Chambers (1995) describes as *the axiom of categoricity* – the traditional assumption in linguistics that language structure should be treated as invariant. In accordance with this principle, variability

has often been dismissed as unstructured and thus of little theoretical value, but Labov's classic sociolinguistic studies in Martha's Vineyard (1963) and New York City (1966) demonstrated that the trajectories of specific linguistic changes could be inferred from the observation of patterns of variation in contemporary speech communities (see further section 2.5 below). He thus reacted quite radically not only against the axiom of categoricity but against the Saussurian dichotomy, fundamental to structural linguists, which held that the synchronic study of language states was an endeavor entirely separate from the diachronic study of language change. Labov also reacted in these influential early works against the methods and assumptions of contemporary dialectological research – a field quite distinct from the mainstream linguistics of the 1960s. These intersecting reactions still inform many of the assumptions and practices that characterize variationist theory as a subfield.

In this chapter, we expand on these observations, attempting in the remainder of this section to locate the methods and assumptions of variationist theory in relation to those of adjacent fields. In section 1.2 we examine two important historical antecedents to quantitative sociolinguistics – the work of the American descriptivists and that of traditional dialectologists in both the United States and Europe – and in section 1.3 we explore further the relationship between the dialectological and variationist traditions by considering examples of projects that bridge the two approaches.

Johnstone (2000b: 1) points out that contemporary sociolinguistics comprises a great many different traditions of research which address correspondingly different sets of research questions. However, all sociolinguists share a common orientation to language data, believing that analyses of linguistic behavior must be based on empirical data. By this we mean data collected through observation, broadly defined, as opposed to data constructed on the basis of introspection. The most commonly studied data among sociolinguists are those representing speakers' performance – the way they actually use language. Still, researchers may observe elements other than language use. Sociolinguists are often interested in subjective responses to particular linguistic behaviors (e.g., a specific feature or a variety/dialect) and may observe them by eliciting evaluations of speech as is done in perceptual dialectology (see section 1.3.2). Researchers may also make use of speakers' self-reports of their usage (see, e.g., our discussion of written questionnaires in section 3.2.1). Such data can be useful in examining the effects of language ideology (see Milroy and Milroy 1999), but it is important to recognize, however, that such reports are not generally accepted by sociolinguists uncritically as "true" reflections of actual usage.

This general orientation to language data is shared with adjacent fields such as linguistic anthropology and conversation analysis (see Psathas 1995; Pomeranz and Fehr 1997). Qualitative traditions of research such as those of Gumperz (1982a) and Hymes (1972), which emerge from linguistic

anthropology, have been influential from the earliest days of sociolinguistics, continuing to influence contemporary subfields such as discourse analysis (Schiffrin 1994) and interactional sociolinguistics (Gumperz 1982a; Brown and Levinson 1987). Although qualitative research characteristically does not focus on patterns of linguistic variation or employ quantitative methods (but see Schiffrin 1987 for an example of an extensive project which combines quantitative and qualitative procedures), it continues to exert an important influence on variationist theory. Particularly important is the emphasis of linguistic anthropologists on ethnographic methods of observation which attempt to uncover patterns of informal social organization in speech communities, with a primary focus on speakers as social actors, rather than on abstract language patterns. This focus enables a richer and more accountable interpretation of social information than is found in much of variationist research (see further section 3.4).

Like sociolinguists in general, variationists are trained as linguists and routinely use descriptive and analytic tools that are common throughout the field of linguistics. In fact, one regularly finds in the variationist literature descriptive accounts of particular linguistic phenomena which employ standard concepts from syntactic or phonological theory. For example, Martin and Wolfram (1998) examine negative concord and other syntactic features in African American English using a Government Binding framework. Guy and Boberg (1997) offer an account of coronal stop deletion in English that draws on the obligatory contour principle – a construct borrowed from formal phonology. Nevertheless, despite sharing some analytical common ground, such accounts, and those of variationists generally, differ from the accounts of contemporary theoretical linguistics in at least two fundamental ways: (1) they involve differing orientations to data, and (2) they derive from distinct approaches to linguistic variation.

As noted above, variationists, like other sociolinguists, tend to base their analyses on observed data. Traditionally these data have often been gathered in the context of conversational interviews in which the subject (or informant) remains unaware that his or her linguistic usage is the focus of investigation (for alternatives to such methods of data collection see chapter 3 and section 7.2). This source of data clearly contrasts with those sources often used by mainstream theoretical linguists. In this tradition, investigators may rely on data that they themselves construct, drawing on their own intuitions. Alternatively, when dealing with languages which they do not command natively, the investigators may elicit forms from, or verify their own constructions with, native-speaker informants. Thus, the data arise from an explicitly metalinguistic context, one in which the investigator and any informants are thinking about language. Here the questions are of the form “Can you say X?” By contrast, the sociolinguist’s questions are closer to “Do you say X?” though, since the data are usually gathered through observation rather than

elicitation, such questions are not made explicit. The sociolinguist's orientation toward data is further distinguished from that of the theoretical linguist's by the former's adherence to the principle of accountability, which is discussed in the following section.

A more fundamental distinction between theoretical linguistics and variationist sociolinguistics relates to their respective approaches to variability. The principles set out by Weinreich, Labov, and Herzog (1968) are still taken as axiomatic by variationists; namely, a language system that did not display variability would not only be imaginary but dysfunctional, since structured variability is the essential property of language that fulfills important social functions and permits orderly linguistic change. Chambers (1995: 12–32; see also Chambers and Trudgill 1998: 127) has discussed the role of the *linguistic variable* as a structural unit, parallel to such units as the phoneme and noun phrase in linguistic theory. Chambers points out that, from the earliest days of structural linguistics, analysts produced descriptions and generalizations based on an underlying assumption that linguistic structure was fundamentally categorical. Following the Axiom of Categoricity, language is seen as operating with a kind of mathematical consistency. Still, it has always been known that speakers varied in their realizations of particular abstract linguistic structures (intraspeaker variation) and, furthermore, that usage varies across speakers (interspeaker variation). Thus, for example, /æ/ (the vowel of *cat* and *bad*) in many varieties of American English is realized with a range of vowel qualities from a low front monophthong [æ] to a high front diphthong [ɪə] (see Labov 1994; Gordon 2001b). It is also common for plural subjects sometimes to take singular and sometimes plural forms of the verb BE (as in *we was sleeping*/*we were sleeping*) (Tagliamonte and Smith 2000; see also Tagliamonte 1998). In the past many linguists (notably, Edward Sapir) have displayed sensitivity to the pervasiveness of variation. Nevertheless, the mainstream linguistic approach to the plain fact of variability has often been to exclude it from consideration in the interests of providing a coherent and elegant descriptive and theoretical account. This orientation was captured in Chomsky's oft-quoted statement that the primary concern of linguistic theory is “an ideal speaker-listener, in a completely homogeneous speech-community” (1965: 3). In this tradition variability is treated as a methodological complication: it introduces a kind of noise which obscures the important underlying invariance. The perceived peripherality of variation to theoretical matters is reinforced by a dichotomy that segments off language structure (competence) from language use (performance) and assumes many kinds of variation to be the purview of the latter (see further below).

Such an orientation to variability describes alternative realizations like [æ] versus [ɪə], or *was* versus *were* following a plural subject as either the outcome of *dialect mixing*, held to be a temporary situation of instability, or

instances of *free variation*. However, as the psychologist Fischer noted “Free variation is a label, not an explanation. It does not tell us where the variants came from nor why the speakers use them in differing proportions, but is rather a way of excluding such questions from the scope of immediate enquiry” (Fischer 1958: 47–8; cited by Chambers and Trudgill 1998: 128). As their name implies, variationists view variation as central to their immediate enquiry; rather than treating, and often dismissing, variation as free, accidental, unconstrained, or temporary, variationists begin with the assumption that variation is structured and seek to uncover patterning. In truth, many theoretical linguists approach variation with similar assumptions, and treatments of variation have made their mark within theoretical linguistics from time to time. For example, Pollock (1989) used evidence of the variable position of infinitival verbs in French and in English to propose a radical revision of sentence structure which resulted in major changes to mainstream syntactic theory. Similarly, Diesing (1992) presented a highly influential proposal for how interpretation relates to syntactic position, based on variable word orders in German and their semantic correlates. Moreover, alternations like the English dative shift (*give the book to her* vs. *give her the book*) and the variable position of objects in verb particle constructions (*turn off the light* vs. *turn the light off*) are also time-honored topics of study within the generative paradigm.

Nevertheless, one obvious difference between treatments of variability within the generative tradition and within sociolinguistics is that the latter make reference to social (i.e., extralinguistic) as well as linguistic information in specifying the constraints on variability. Thus, frequencies of particular variants are constrained not only by different linguistic contexts (type of following consonant in the case of (æ); type of grammatical subject in the case of (BE PAST)) but also by social characteristics of the speaker such as gender, age or status and the kind of social context (interview talk vs. peer interaction, for example) in which language samples are embedded.

A somewhat more subtle distinction between generative and variationist approaches to variability stems from the emergence of the linguistic variable as a structural unit. Chambers (1995) elaborates in some detail the significance of this development for the sociolinguistic enterprise and for linguistic theory more generally. Examples of underlying linguistic variables would thus be (æ) or (BE PAST), as mentioned above. Variants which realized those abstract variables would include, respectively, [æ] and [ɪə] (and countless intermediate forms) and *was* and *were*. A major goal of the variationist enterprise is to specify and order the constraints which lead to one choice rather than another. The linguistic variable works in terms not of categorical use, but of greater or less frequency of one variant than another, so marking the abandonment of the axiom of categoricity. However, like other structural

linguistic units, it is understood as an abstraction underlying actual realizations (see further section 6.5 below).

Chambers suggests that the abandonment of the axiom of categoricity renders variationist theories irreconcilable with those of contemporary generative linguistics, since the latter paradigm abstracts away from variability while variationists treat it as central. It is worth considering for a moment some reasons for Chambers's rather pessimistic verdict. First, the constructs of mainstream generative linguistics have become more rather than less abstract over the years. Sidnell (2000) notes the continuing relevance of Givón's (1979) critique, namely that the abstraction that was originally devised as a point of methodological convenience has become progressively more prominent. Thus the focus is no longer on the detailed linguistic rules of early generative theory, but on the specification of broad principles and parameters constraining the form of universal grammars (Cook and Newson 1996). For this reason, the hope for fruitful collaboration between different traditions of linguistic research expressed by Labov (1975) has become less likely to be realized in the intervening quarter century. Labov's (1996) examination of problems in the use of intuitions (introspective judgments of grammatical well-formedness), either of the analyst or of the individual whose dialect is being studied, is both an update of and sequel to his 1975 monograph. In the course of this more recent article, he contrasts the approaches of variationists and generativists, and examines the roles of intuition and observation in deriving valid linguistic generalizations. While he finds many points of overlap between the two traditions, the optimistic hopes of collaboration expressed in his 1975 paper are noticeably absent.

Second, the distinction between *competence* and *performance*, first expounded by Chomsky in 1965, remains problematic to all sociolinguists. A speaker's competence is the underlying ability to produce and interpret well-formed sentences in a given language and to distinguish well-formed from ill-formed strings. The specifics of such competence are generally established by eliciting intuitions (or using the analyst's own intuitions) of grammaticality. Performance, on the other hand, covers not only the manifestation of competence on actual occasions of language use, but the effects of memory, perception, and attention on language behavior. In 1986, Chomsky revised the competence/performance dichotomy, preferring a distinction between I(nternal) and (E)xternal language. As Sidnell (2000) points out, this change in terminology involved no significant alteration in the underlying abstraction except a slight change of focus on what constitutes E-language. While generativists are interested exclusively in competence/I-language and have not elaborated any coherent theory of performance/E-language, the distinction is problematic to sociolinguists, most obviously because it treats language as intrinsically asocial (see, again, Labov 1996 for

a wide-ranging discussion of the issues). Much systematically variable language behavior is treated globally as performance/E-language, along with the linguistic effects of memory and attention. For variationists, not only is variation essential and intrinsic to human language, but the detail of systematic, socially embedded variable behavior is the key to an understanding of the dynamics of language change. In an account of variability of pronominal reference in Spanish, Cameron (1996) aligns himself with Prince (1988), arguing specifically for an enlarged conception of competence to include memory and attention phenomena.

In the early days of sociolinguistics Hymes (1972) pointed out that Chomsky's competence was only one kind of linguistic competence. Not only did competent speakers produce and interpret well-formed sentences, but they also used varieties of language from a systematically structured community repertoire to perform social actions in contextually appropriate ways that were meaningful to other members. They also recognized particular utterances as ironic, teasing, serious, etc. (Hymes 1972, 1974). Any socially informed linguistics concurs with Hymes in conceiving of knowledge "with a view to its fundamental role in communication between socially located actors in continuously changing human societies" (Sidnell 2000: 41).

While these rather fundamental incompatibilities need to be acknowledged, it is important not to exaggerate the impenetrability of the boundaries between sociolinguistics and theoretical (usually generative) linguistics or to further polarize the two research traditions. On the generative side, Henry (1995) has produced an account of dialect acquisition in Belfast, Northern Ireland within a principles and parameters framework, which takes account not only of variability but is based largely on observed data (see also Wilson and Henry 1998). Prince (1988) has argued for a much enlarged concept of competence that takes account of observed and naturalistic language data. Schütze (1996) provides a critique of the role of intuition in syntax research, arguing for a radical rethinking of its empirical base. Conversely, variationists regularly work with frameworks developed by theoretical linguists. For example, Cornips (1998) examines syntactic variation within a principles and parameters framework; Nagy and Reynolds (1997), Guy (1997), and Zubritskaya (1997) work with Optimality Theory from theoretical phonology; and Docherty et al. (1997) examine the descriptive adequacy of theoretical accounts of glottalization phenomena from a variationist perspective.

We conclude this review of the interrelationships between linguistics, sociolinguistics, and cognate disciplines with some comments on the orientation of variationist theory toward the social dimension of language behavior. Gumperz (1982a) has pointed out that although Labov rejects Saussurian and Chomskyan assumptions of uniformity in grammatical systems, he

shares with other linguists an interest in understanding the general character of grammars, believing these to be affected by the social characteristics of human groups. Our discussion so far has in fact assumed this orientation by locating variationist theory as a subdiscipline of linguistics. However, Gumperz then argues that the relatively abstract approach associated with Labov's theoretical goal entails a neglect of the speaker as participant in interaction, and that quite different methods are needed to investigate issues arising from the ability of speakers to interact, such as the co-occurrence (or otherwise) of their judgments in the interpretation of discourse: "A speaker-oriented approach to conversation . . . focuses directly on the strategies that govern the actor's use of lexical, grammatical, sociolinguistic and other knowledge in the production and interpretation of messages in context" (Gumperz 1982a: 35). Labov himself has contrasted in a similar way two alternative approaches to linguistic variation: one can start by examining linguistic forms (variables) and their distribution, or by examining speakers and the kind of behavior appropriate to different situations. Labov prefers the first type of framework because it gives a better idea of the *system* as a whole, although it is not capable of yielding optimal information about *speakers* (Labov 1966: 209).

The distinction drawn here between the properties of a variable system and the behaviors of the speaker is an important one that still gives rise to tension in the field. It embodies the chief distinction between qualitative and quantitative, interactional and variationist traditions of sociolinguistic research, the former type being influentially exemplified by Brown and Levinson (1987). Johnstone (2000b) has recently provided a clear account of the methods, goals and assumptions of qualitative sociolinguistics. Over the years, Labov's work has become increasingly oriented to the linguistic system rather than to the speaker, attempting primarily to specify universal patterns of change in vowel systems (Labov 1991, 1994) and to map out the large-scale spatial distributions of these systems (see further section 1.3.2; Labov, Ash, and Boberg, forthcoming). These analyses make little if any reference to social information or to the behaviors of speakers. A more generally unsophisticated treatment, or even neglect, of social factors by variationists has given rise to criticism not only by linguistic anthropologists but by variationists themselves (see, for example, Rickford 1999; Eckert 2000). As we will see in chapter 5, Eckert and others have recently argued strongly for a more socially sophisticated approach to language variation that systematically takes into account the behaviors and motivations of speakers. The chief point we make here, however, is the continuing relevance of the distinction articulated by both Gumperz and Labov between an approach that primarily addresses the properties of variable linguistic systems and one that primarily addresses the behaviors of speakers in their speech communities.

1.2 Earlier Approaches to Linguistic Description

1.2.1 *The American descriptivists*

The American linguists, commonly known as “structuralists” or “descriptivists,” placed a high premium on the development and practice of a rigorous and accountable set of field and analytic methods. In this section we outline the characteristics of their approach and philosophy only insofar as they are particularly relevant to the central concerns of this book. For fuller accounts, the reader is referred to Lepschy (1982), Hymes and Fought (1980), Robins (1967), and Sampson (1980).

The concern with method in mainstream American linguistics from the early decades of the twentieth century until the emergence of Chomsky’s generative grammar is largely attributable to a desire to describe as rapidly and efficiently as possible a large number of dying native American languages. Gumperz (1982a: 12) contrasts the atmosphere of empiricism at that time in America, where scholars were concerned with working in the field, with that in Europe, where they worked in offices. He apparently sees contemporary sociolinguistics as a continuation of this empirical tradition. Following the line of reasoning elaborated by Bloomfield (1926; 1933), the accreditation of a *scientific* status to linguistics was associated with the development of rigorous methods of description. American linguists strove to obtain objectivity by developing accountable procedures for inductively deriving linguistic generalizations from observable data, and an important methodological principle springing from this concern was that the phonological, morphological, syntactic and semantic patterns of a language should be analyzed separately. They should, moreover, be analyzed in that order so that the analyst could remain in touch with the “observable” part of language – the sequence of sound segments with which the description began.

A similar concern with accountability to the data subsequently became the hallmark of variationist work; Labov’s *principle of accountability* extends the general philosophy of accountability to a specifiable procedure which is the cornerstone of quantitative method (see further section 6.1). In this respect his views resemble those of earlier American linguists but differ sharply from those of Chomsky and others working within the generative paradigm. Replacing induction with a hypothetico-deductive mode of reasoning, the generativists argued that no corpus of data, however large, can usefully serve as a basis for linguistic generalizations since any corpus is a partial and accidental collection of utterances (Chomsky 1965: 15). Chomsky’s general point about the inadequacy of corpora as the *only* source of information is surely correct, but in practice seems uncontroversial since intuition

and introspection (either of the investigator or more usually of the informant) have always been used by linguists, including sociolinguists, who work in the field. Voegelin and Harris (1951) discuss the relative roles of observation and intuition (of the informant) as data-gathering procedures, and the same theme is revisited by Rickford (1987). Johnstone (2000b: 71–9) discusses at some length the role of intuition and introspection in sociolinguistic research. Although Chomsky seems to be attacking a straw man in his critique of corpus-based research, the effect of his remarks has been a shift of focus from observation to introspection, and a corresponding removal from mainstream linguistics of the need to be accountable to an independently collected body of data.

Despite this major paradigm shift in linguistics, American descriptivist methods still provide the basis for procedures of data collection and analysis in the field. The extensive studies of Australian languages by Robert Dixon and his associates are obvious examples, as are the continuing efforts of linguists working on the indigenous languages of the Americas (see Mithun 1996 for a review). Rather less obviously, structuralist methods – the most influential of which are outlined below – have been developed in various ways for use in quantitative sociolinguistic work (see particularly Labov 1984).

To get a sense of descriptivists' methods, we can consider their approach to establishing which sounds were contrastive – a procedure that they considered to be the major task of a phonological analysis:

We take an utterance recorded as DEF. We now consult an utterance composed of the segments of DA'F where A' is a repetition of a segment A in an utterance which we had represented as ABC. If our informant accepts DA'F as a repetition of DEF . . . and if we are similarly able to obtain E'BC (E' being a repetition of E) as equivalent to ABC, then we say that A and E . . . are mutually substitutable (or equivalent) as free variants of each other . . . If we fail in these tests we say that A is different from E and not substitutable for it. *The test of segment substitutability is the action of the native speaker: his use of it or his acceptance of our use of it.* (Harris 1951: 31 – our italics)

In the absence of any alternative framework capable of application to a substantial body of data, linguists studying unknown languages still need to establish contrastivity in a similar way (see Healey 1974: 8 for a New Guinea example). And so do variationists; but one respect in which they have advanced the substitution method is by querying the assumption of objectivity in pair testing and showing that native speaker judgments of “same” and “different” do not necessarily correspond in a straightforward way with independently observed phonological patterns (see section 6.5; Milroy and Harris 1980). Harris's painstaking account in the above quotation gives an idea of the care with which the descriptivists formulated their “discovery procedures” as they were called – this basic method of substituting one element for another

being viewed as the equivalent in linguistics to the controlled experiment of the physical sciences. Most importantly, it permitted replicability.

The descriptivists pursued similar techniques in their analysis of the *syntactic* patterns of an unknown language. The main aim was to assign words to classes on purely distributional grounds, using syntactic frames (parallel to Harris's phonological frame DEF) to present a range of items that were candidates for membership of a particular category. In most cases, particularly for investigators of North American languages, the examination of syntax and other higher-level linguistic elements was aided by the recording of texts containing longer stretches of connected speech (Mithun 2001: 35). Field linguists continue to rely on both direct elicitation and texts as complementary sources of data (Mithun 2001; Payne 1997). It is also important to note the central role of native-speaker consultants in the transcription and analysis of texts. In fact, Payne suggests that working through a text with a consultant can provide a fruitful context for eliciting data. The linguist can ask, in reference to a passage in the text, "Can different word orders be employed? What would the speaker have meant if he/she had said ACB instead of ABC?" (Payne 1997: 369). Thus, syntactic analyses in this tradition may still rely on the intuitions of native speakers even when they incorporate data from independently collected texts.

As in the case of phonological pairs tests, sociolinguists and others who gather data in the field have reported that speaker judgments do not always accord well with the results of independent observation, and are more likely to reflect stereotypical attitudes to linguistic forms than the facts of grammatical structure. Chelliah (2001) describes how some of the speakers of Meithei, a Tibeto-Burman language spoken in India, rejected as ungrammatical certain constructions that she had recorded in conversational contexts. Based on their labeling of the relevant constructions as the product of "laziness," Chelliah concluded that the judgment of these speakers was influenced by their familiarity with Sanskrit-based prescriptive grammars of their language. Mithun (2001: 48) notes a range of difficulties related to the elicitation of grammaticality judgments, including the fact that consultants may reject sentences as "ungrammatical" based on pragmatic considerations or even on poor pronunciation. Based on similar concerns, Labov (1975, 1996) has cited the unreliability of speaker judgments as an argument against the uncontrolled use of introspection as a methodological tool (see also Schütze 1996).

1.2.2 Traditional dialectology

Many aspects of the geographical observation and description of language – an approach that was developed during the nineteenth and twentieth centuries – underlie the variationist methods that are discussed in the following

chapters. Conversely, in recent years Labov's innovations have heavily influenced contemporary dialectology which has become revitalized after many years of relative decline. Chambers and Trudgill (1998) provide a comprehensive account of the methods of traditional dialectology ("dialect geography," in their terms) which they integrate with those of contemporary urban (i.e., variationist) and rural dialectology. The discussion in this section is limited to the methods and goals of traditional dialectology which provided a context to Labov's early work. Later developments are reviewed in section 1.3.2 below.

Generally speaking, the aim of dialectological work is to produce a geographical account of linguistic differences, the end product often taking the form of a series of maps showing the broad areal limits of the linguistic features (usually lexical or phonological) chosen for study. Boundaries (known as *isoglosses*) are plotted on a map, to show where form A gives way to form B; a *dialect boundary* is said to exist where a number of isoglosses more or less coincide. For example, Wakelin (1972: 102) illustrates the boundary between the northern and north-Midland dialect areas of England by showing eight isoglosses which mark the approximate southern limit of eight phonological features characteristic of northern English dialect speech. It is important to appreciate that the field methods of traditional dialectology were not devised to survey patterns of contemporary language use as an end in itself, but to offer a means of answering questions about the earlier history of the language within the philological tradition of the nineteenth century. The main objective was to study contemporary reflexes of older linguistic forms in their natural setting, concentrating on speakers and locations that were relatively free from external influence. Associated with this theoretical model was a view of rural life strongly colored by nineteenth-century romanticism, as noted by the influential American dialectologist Hans Kurath:

In Europe, the practice has been to confine the survey to the speechways of the folk, and to give prominence to the oldest living generation in rural communities. A predilection for historical problems, the hope of shedding light on processes of linguistic change by observing the linguistic behavior of the folk, and admiration for the soil-bound "ethos" or "world-view" of "natural" people have been the motives and justification offered for this practice. (Kurath 1972: 13)

With these motives, Jules Gilliéron approached his linguistic survey of France (1896–1900) by seeking out older male, uneducated speakers who lived in remote rural communities. Chambers and Trudgill (1998: 29) note the selection of this type of speaker as the hallmark of traditional dialectology: "No matter how diverse the culture, how discrepant the socioeconomic

climate, and how varied the topography, the majority of informants has in all cases consisted of nonmobile older rural males,” for whom they adopt the acronym NORMs. Both Orton (1962: 15) and McIntosh (1952: 85) discuss the value of this type of speaker on whom it does indeed seem reasonable to concentrate if the goal is to collect evidence confirming hypothetical reconstructions of earlier forms. By the same token, however, rather different sampling procedures are needed if the survey purports to make a more general statement about patterns of language variation.

While nineteenth-century research is overwhelmingly historical in orientation, twentieth-century dialectologists working within the traditional paradigm frequently shifted theoretical goals in the direction of an attempt to describe the contemporary language. This is a particularly notable feature of early dialectology in the United States, the achievements of which are described by Carver (1987). Thus, Hans Kurath, appointed director in 1929 of a proposed Linguistic Atlas of the United States and Canada, sought to adapt the traditional model by selecting subjects at three educational levels, each notionally categorized as “old-fashioned” and “modern” types. Kurath (1972: 11) comments: “Until recently, large-scale surveys have been deliberately restricted to folk speech, especially to that of the countryside . . . In *The Linguistic Atlas of the United States* all population centers of any size were regularly included and, in principle, all social levels are represented.” Proportionally the resulting samples still favored the traditional type of speakers, but it is nevertheless significant that people representing higher educational and socioeconomic levels were included. In fact, as Bailey (1996) points out, even in the nineteenth century the American Dialect Society was much more inclined than its English counterpart to recognize urban dialects as falling within the domain of investigation. An example of this wider focus is Babbitt’s (1896) account of the urban dialect of New York City. At this time, British urban speech was thought to be unworthy of serious study (Bailey 1996: 71–2).

A tendency in more recent British studies to shift the theoretical goal is evident from McIntosh’s comment that the Scottish survey will concentrate on older (or, as he calls them, “resistant”) speakers “*only in the first instance*” (1952: 86). Orton, on the other hand, while aware of the sensitivity of patterns of language use to factors such as status, age, sex of speaker, and situational context, is nevertheless quite clear in his view that these facts are irrelevant, since his objective is to locate for the *Survey of English Dialects* speakers who can provide samples of traditional dialect speech (Orton 1962: 15). In a sense Orton’s apparent recalcitrance is quite justified. As the examples discussed below (section 1.3.1) illustrate, established dialectological methods of the mid-twentieth century were fundamentally incapable of producing a realistic account of contemporary language variation. Indeed, one of the major points made by Labov in his early (1966) comments on the

work of the dialectologists is that such an account necessitates radical alterations to the traditional method; minor adaptations are insufficient.

Moving on from the question of strategies of speaker selection to methods of data collection in traditional dialectology, the two major techniques are on-the-spot transcription of responses to a questionnaire elicited by a trained fieldworker and the postal questionnaire (see Chambers and Trudgill 1998: 21–4). The technique of on-the-spot transcription (particularly phonetic transcription) adapted in various ways, has provided the major model for later work. For more than half a century on-the-spot transcription has been supplemented or replaced by audio recordings – a development that has made possible close study of larger stretches of spontaneous spoken language rather than isolated lexical items (see chapter 3). However, in general, those twentieth-century dialectological projects (for example, the *Survey of English Dialects*), which work within an only slightly modified framework of the traditional paradigm, have not fully exploited the technological advances that have increasingly facilitated the study of spontaneous speech. Often the tape-recorder is used simply as a support for the fieldworker, who proceeds otherwise in much the same way as his or her nineteenth-century equivalent.

The postal questionnaire is an older technique, pioneered in Germany by Georg Wenker in 1876. More recently it has been used by McIntosh (1952) in Scotland and Le Page (1954) in the Caribbean; see also Le Page and Tabouret-Keller (1985: 83). McIntosh notes the obvious advantage of the method: that it provides an economic means of collecting large volumes of data. Nevertheless, the technique has its limitations and raises questions about the reliability of self-reported data (see further section 3.2.1). Questionnaires are still widely used where there is a need to collect quickly a large amount of easily processible data; examples include the Adult Language Use Survey of the Linguistic Minorities Project in Britain (1985) and Amuda's (1986) study of Yoruba/English code-switching patterns in Nigeria. The adaptability of the postal questionnaire as an instrument for sociolinguistic research has been illustrated by Chambers's Golden Horseshoe project in Canada (see section 3.2.1; Chambers 1998b). Some researchers have even taken the postal questionnaire into the digital age by utilizing the Internet in gathering responses (von Schneidemesser 1996; Murray, Frazer, and Simon 1996; Murray and Simon 1999).

Some of the difficulties associated with self-reported data are alluded to by Le Page (1957, 1958). His procedure in the *Linguistic Survey of the British Caribbean* was to send a questionnaire containing the following instructions to schoolteachers, who were asked to locate suitable respondents:

It is essential that the answers given to each question should not be those which the school teacher or other helper (whom we will call the *Interrogator*)

can supply from his own vocabulary, which will have been considerably enlarged and influenced by his education and travel, but those which a local *Informant* supplies without undue prompting. You are therefore requested to select as an *informant* somebody, preferably middle-aged and not too well educated, who has lived in your area for the greater part of his or her life, and has had comparatively little contact with other places. The *Informant* will have to be a person whom you know is willing to talk to you unaffectedly in the language he would use to his own family; somebody who will not be trying to impress you with his knowledge of white-talk all the time or of what is said by other people in other places. It would be useful to explain to the informant that you only want the words and phrases exactly as they would be used by the ordinary unsophisticated people of this community. Men or women who work or live in daily contact with people from other countries or other walks of life should not be used as informants. In an agricultural village, select an elderly labourer, in a fishing village a fisherman but not somebody who goes to sell goods in a distant market or somebody who works as a domestic servant. (Le Page 1954: 2)

Le Page identifies here a number of problems that are not associated exclusively with the use of a questionnaire, but are quite general in linguistic fieldwork and were not addressed by traditional dialectological methods. First, the effect of social or occupational mobility on language use is noted; second, the natural effect of style-shifting in inhibiting the use of everyday language as opposed to more formal varieties is hinted at; and finally the effect of “white-talk” on attitudes to vernacular usage is noted, together with the consequence that an informant will often claim to use forms considered to be of higher status than his or her normal usage. All of these problems of eliciting samples of low-status vernacular speech in contexts where negative social values are attached to it have subsequently received considerable attention from investigators working within Labov’s framework. Indeed, for many years Le Page worked partly within this framework, although he has been critical of some aspects of it (see McEntegart and Le Page 1982; Le Page and Tabouret-Keller 1985).

1.3 Adaptations of the Traditional Model

Until the mid-1960s, the general framework offered by the traditional dialectological model was widely used for descriptions of language variation largely because it was the only coherent one available at that time. In the following sections we look at various attempts to adapt it for purposes other than those for which it was originally intended, and discuss some of the problems and successes encountered.

1.3.1 Between paradigms: Early urban studies

We noted in section 1.2.2 that the goals and methods of traditional dialectology were motivated by the historical preoccupations of nineteenth-century philology. With the emergence of structural linguistics in Europe and the United States in the early decades of the twentieth century, the links between dialectology and mainstream linguistic science disappeared, and dialectology developed for a time more or less independently of linguistics. Chambers and Trudgill (1998: ch. 3) discuss developments which attempt to restore that link. Of these the most influential is the structural dialectology associated with Weinreich, Labov's mentor (Weinreich 1954), and Moulton, the Germanic dialectologist (Moulton 1960). Structural dialectology addressed the tendency of dialectologists to treat linguistic elements (particularly sounds) in isolation, rather than as parts of a system. Labov has recently reaffirmed Weinreich's influence on his students (specifically himself and the creolist, Beryl Bailey) in encouraging them "to apply the tools of linguistics to the language of everyday life and to set aside the barriers between linguistic analysis and dialectology" (Labov 1998: 111). Since a full account of the focus of structural dialectology on phonological systems is provided by Chambers and Trudgill, we do no more here than note its continuing influence. The focus of Labov's recent work on whole vowel systems (noted in section 1.1 above) appears to reflect the influence of structural dialectology, as does his continuing interest in the dynamics of vocalic chain-shifting, mergers, and splits (Labov 1994).

We turn now to a very different kind of problem associated with traditional dialectology – the practice of selecting the conservative, rural type of speakers termed NORMs by Chambers and Trudgill and (particularly in Britain) ignoring city dwellers. We look briefly at some early urban studies which nevertheless retained salient characteristics of the traditional model. One of the most pervasive assumptions underlying the traditional dialectological method is that a particular form of a dialect – usually represented by the speech of a conservative, socially marginal speaker – is in some sense the "genuine" or "pure" form. The main difference between early and more recent (variationist) urban studies is that by employing the concept of the linguistic variable the latter examine *alternative* linguistic forms, seeing this alternation as a significant property of language rather than admitting the concept of the "pure" or "genuine" dialect. This difference in the conception of what constitutes a dialect has important implications for subject selection procedures.

A fine example of a thorough traditional study of an urban dialect is Viereck's *Phonematische Analyse des Dialects von Gateshead-upon-Tyne* [sic] (1966), a substantial and clear synchronic phonological account which includes

a discussion of the relation between Received Pronunciation and “local standards” (an idea derived from H. C. Wyld). Viereck considers in some detail how dialect forms might interact with RP forms to produce such urban varieties as that of Gateshead, a city adjacent to Newcastle on the southern bank of the River Tyne (see section 5.3 below where this issue is addressed somewhat differently in contemporary Tyneside as an example of the process of dialect leveling). Although Gateshead’s population is given as 100,000 and consists of males and females of all ages and various social statuses, Viereck’s description is based on the speech of 12 men, all retired manual workers, whose average age is 76. This does not seem to be a reasonable basis for a systematic description of an urban dialect.

Gregg’s work in Larne, Co. Antrim, Northern Ireland (1964) resembles Viereck’s study in its orientation to phonological structure and its interest in the emergence of local urban standards. Gregg relates his findings in Larne to data on the local Ulster-Scots dialect, noting that while Larne speakers have a similar phoneme inventory to rural hinterland speakers, they characteristically reorganize it in such a way that the available phonemic contrasts appear in different lexical sets. This kind of systemic difference is what Wells (1982) describes as a difference in phonological incidence. Although Gregg’s account is linguistically sophisticated, it is also clearly traditional in orientation insofar as it is preoccupied with the “genuine” speech of Larne as opposed to speech in which influence from nearby Belfast can be detected.

Similar comments might be made about Sivertsen’s *Cockney Phonology* (1960), a study of the working-class dialect of London. While recognizing that there are various kinds of Cockney which vary according to style and social location of speaker, Sivertsen is explicitly interested in what she describes as “rough Cockney.” Her work is based mainly on the speech of four elderly female speakers from Bethnal Green, selected for their relative social isolation, low social status, and lack of education. This is a substantial and clear description which also includes a number of observations on matters that became quite central in later variationist work – for example, gender-related differences in language. Sivertsen nevertheless retains the traditional preoccupation with the “pure” form of the dialect – in her view most reliably obtained from uneducated, elderly, low-status speakers.

The best of these early urban studies, of which we have discussed only a few examples here, provide valuable sources of data on the phonologies of urban dialects (see further Kurath 1972: 184ff) but they present two main problems.

First, certain assumptions are inherent in the preoccupation with “genuine” dialect, the most obvious being that young speakers, by virtue of access to education and modern communications networks, are more likely to be influenced by the standard. This assumption has not in general been borne out by observation. An early example of a contrary finding is provided by

Hurford's (1967), investigation of the language of three generations of a London family. Hurford shows that Cockney features are advancing among the youngest speakers at the expense of RP features.

A very large number of quantitative studies suggest that the kind of age grading in language noted by Hurford is in fact rather general, to the extent that researchers now expect to find the most progressive form of an urban vernacular among adolescent speakers and may therefore focus on that age group (see, for example, Cheshire 1982; Eckert 2000; Kerswill 1996). Furthermore, if traditional features recede, they are not usually replaced by forms that could be considered "standard" (Trudgill 1988; Kerswill and Williams 2000). The apparently common-sense assumptions inherent in the older urban studies are found on closer investigation to be false.

The second problem with these studies is their lack of representativeness. For example, London is one of the largest cities in the world and has, at least since the sixteenth century been linguistically very heterogeneous (Nevalainen 2000b). Even if we confine our interest to working-class speech from the low-status East End of the city, we are still talking about a pool of hundreds of thousands of people. It therefore seems inappropriate to limit the description to a single type of speaker without acknowledgment or justification. If this criticism is accepted, sampling procedures emerge as salient. At much the same time as Labov was developing in New York City the sampling procedures that subsequently became widely used by variationists, others attempted to tackle the sampling problem while still working broadly within a traditional framework. A brief outline of three such attempts will help to contextualize Labov's more radical methods, which are discussed in chapter 2.

In his study of Chicago, Pederson (1965) expanded greatly the traditional system for classifying subjects socially in order to represent more accurately the diversity in the population. Instead of the three-way distinction used in the linguistic atlas projects (see section 1.2.2), Pederson categorized his speakers into 10 types based on their education and another 11 types based on their socioeconomic status. He sampled the speech of 136 people from across these categories. Moreover, his sample attempted to represent some of the ethnic diversity of the city and included African Americans, Hispanics, and whites of various European descents. Unfortunately, this rich demographic detail is never correlated systematically with the linguistic data. In his discussion of phonological variation, Pederson often notes forms as having been used by particular speakers and attempts generalizations about the types of speakers offering a certain pronunciation. It is nevertheless difficult to assess the validity of any suggested patterns since they seem to be based on casual observations rather than a systematic comparison of groups.

Similar difficulties are found with Houck's survey in Leeds, England. This work was intended to provide a model for the study of urban dialects

generally (Houck 1968). Using a sophisticated two-stage sampling procedure, he ended up with a sample of 115, representing a 75 percent success rate, which is very high for a linguistic survey (see further section 2.2.1). Unfortunately, however, Houck gave little indication in his published work of how the speech of his 115 subjects was handled; the intention seems to have been to set up a phonological system using minimal pairs elicited by means of sentence frames (cf. section 1.2.1). Thus, although he succeeded in obtaining a large amount of representative data, he was unable to find a way of handling it. Houck's work, like Pederson's, is suggestive of the tension between the need for accountable sampling procedures and the demands on the analyst's time and energy of analyzing large amounts of linguistic data. We return to this issue later (sections 2.2.3 and 3.5).

Heath's survey (1980) of the urban dialect of Cannock, Staffordshire, England, carried out in the late 1960s, is characterized by an equally rigorous approach to sampling. Eighty speakers are divided into five groups, in accordance with the amount of influence upon their speech of the "extremes" of Received Pronunciation (RP) on the one hand and Cannock urban dialect on the other. The influence of traditional assumptions on Heath's approach – as on that of the other researchers whose urban dialectological work has been considered in this section – is evident in frequent references to the "pure" Cannock speaker.

In subsequent chapters, we discuss methods of data collection and analysis that do not rely on the concept of the "pure" dialect speaker but allow the contemporary language to be modeled in a somewhat more realistic way than was possible by adapting traditional methodology. For although there is much that is valuable and innovatory in Heath's work, he was not able to model the *systematic* character of interspeaker variation. The major contribution of Labov's methods was that in explicitly recognizing such patterns they provided a means of describing the language of a much broader range of speaker groups, without forcing the investigator to argue (or imply) that the language of one particular group was in some sense more "genuine" than that of others. In the final section of this chapter we consider research that has borrowed aspects of Labov's methods for describing linguistic variation. We see this work as exemplifying a growing union between dialectology and sociolinguistics or at least between some of the practitioners of each field.

1.3.2 *Bridging paradigms: Adaptations of traditional dialectology*

One acknowledged deficiency of traditional dialectology is its difficulty in dealing with variable forms and especially in representing variability among the sample populations. An isogloss drawn on a map to illustrate the geographical extent of a given form suggests that people on one side of the line

use that form while people on the other side use an alternative form. In doing so, the isogloss can mask variability within the regions (i.e., the use of both forms on either side of the line). For this reason, many dialectologists seemed hesitant about drawing isoglosses and preferred maps showing the distribution of forms with symbols representing individual communities (see, e.g., Kurath 1949). Even this approach is problematic as it masks variation within communities and within individual speakers.

More recently, dialectologists have turned to various quantitative methods to address these problems. For example, Carver (1987) adopts the notion of isoglossal layering as a means of representing the complexity of dialect boundaries. Carver's work is based exclusively on lexical data taken mainly from the Dictionary of American Regional English (DARE) project. His approach treats dialect boundaries as more incremental and distinguishes "core" regions from secondary and tertiary ones. These distinctions are based on the number of regional features in use in an area. So, for example, Carver examined 61 features associated with the traditional Lower South dialect region in the US. Certainly, we do not expect to find all 61 features in a given community, and in fact the highest number recorded for a single location was 37. Carver designated the core layer of the Lower South to include those communities having between 17 and 37 of the features. A secondary layer extended to those areas in which at least 10 features were found, and a tertiary layer to those with between one and nine of the features. This layering approach reflects the fluidity of dialect divisions more accurately than do simple isoglosses. Moreover, by considering relatively large numbers of features and employing objective criteria for drawing boundaries (i.e., numerical cut-offs), Carver does appear to remove much of the subjectivity involved in determining dialect divisions and let the data speak for themselves. Nevertheless, as Kretzschmar (1996) observes, this approach remains highly subjective as demonstrated by the fact that Carver selected the data he examined from hundreds of available features without offering any objective evidence that the chosen variables are more significant as dialect markers than those he rejected.

Central to the increased interest in quantitative methods among dialectologists have been advances in computer technology which make every step in the process quicker and easier from analyzing the data statistically to plotting results on maps. Such technology has reinvigorated the field, and a wide range of new approaches have appeared (see, e.g., Kretzschmar, Schneider, and Johnson 1989; Girard and Larmouth, 1993). A leading figure in this area has been William Kretzschmar, Jr., who directed the creation of a computerized database of the materials from the Linguistic Atlas of the Middle and South Atlantic States (LAMSAS). Among other advantages, this database facilitates the representation of variability. In an illustration of this, Kretzschmar (1996) presents "probability maps" for selected lexical

and phonological features. To generate these maps, the LAMSAS survey area, which covers 1,162 communities and stretches from northern Florida to New York state, has been divided into sections of roughly 200 square miles. Each of these sections is shaded to represent the probability that a given form will occur in that area. The shading distinguishes four percentage degrees of probability: 75–100, 50–74, 25–49, and 0–24. In this way, the maps attempt to provide a more textured view of usage than the traditional representations that make only the binary distinction between use and non-use of a given feature. Of course, when viewing such maps, one must bear in mind that the usage being represented is that of the socially restricted set of speakers sampled for the linguistic atlas projects.

With its acknowledgment of the complex nature of language variation and its innovative use of quantitative methods to explore this variation, current dialectological research, such as that of Kretzschmar, bridges the gap between dialect geography and variationist sociolinguistics. The same might be said about recent work in “Perceptual Dialectology” though this approach has a rather distinct focus. Research in this area examines dialect divisions not on the basis of actual usage but rather on the basis of popular perceptions of linguistic differences (see, e.g., Preston 1989, 1999). It is, therefore, fundamentally a study of people’s attitudes and beliefs. Sociolinguists have long recognized the role of such perceptions in shaping usage. In his description of the “social motivation” of the sound change he documented on Martha’s Vineyard, Labov (1963) seeks support for his conclusions by looking at the islanders’ attitudes toward the mainland and newcomers to the island. Whereas Labov examined general attitudes toward island life and correlated these with linguistic patterns, the subject matter of research in perceptual dialectology is confined to direct examinations of attitudes toward language.

As a final example of the growing union of dialectology and sociolinguistics, we note the Telsur (TELEphone SURvey) project directed by William Labov. The objective of this research is a phonological survey of the speech of the United States and Canada. Such broad geographical coverage is achieved by sampling two speakers from hundreds of locations. In larger metropolitan areas, as many as six speakers might be sampled. In favoring breadth across communities over depth within communities, this project has much in common with traditional dialect geography. This resemblance is strengthened by the presentation of the results in atlas form: *The Atlas of North American English* (Labov, Ash, and Boberg, forthcoming). On the other hand, the Telsur project investigates urban speech, whereas the emphasis for dialect geographers was typically rural. Moreover, the linguistic features examined by Labov and his colleagues involve ongoing changes in sound systems rather than historical retentions like those discussed in more traditional studies. The methods for gathering and analyzing

the data also distinguish this project from the early linguistic atlases. As the name implies, the survey is conducted through telephone interviews rather than face-to-face fieldwork. The interviews are recorded so that instrumental acoustic analysis can be performed, and, in fact, the results are typically framed in these acoustic terms. For example, a feature such as the fronting of a given vowel will be listed as present in a region if those speakers show formant frequencies (F2) above a certain threshold (see chapter 6 for discussion of acoustic data). In the United Kingdom, scholars are similarly adopting methods which blur the distinction between dialect geography and sociolinguistics. Upton and Llamas (1999) and Kerswill, Llamas, and Upton (1999) describe a wide range of procedures that are currently being developed in a large-scale survey of language variation in the British Isles.

These examples illustrate how two formerly distinct fields – dialect geography and sociolinguistics – have come to learn from each other. As a result, the traditional distinctions have begun to erode, though important differences of orientation remain. One of the most important of these differences pertains to the relationship between data and theory. As Kretzschmar and Schneider explain (1996: 14), dialect geographers operate under a principle of “data first, theories later” which suggests a separation between the collection and presentation of speech data and the theoretical structures employed to make sense of them. As will be developed in the following chapters, such a separation is not practiced or even desired in sociolinguistics, where the methods of investigating language are at every stage bound up with theoretical concerns.