obtained. In this context the term "linguistic theory" will be restricted primarily to diachronic linguistics as viewed by generative grammarians (e.g., King 1969) and as extended by recent suggestions of Labov (1969).

Disregarding the complications introduced by the effects of bilingualism, it is important to ask: what are the changes in the grammar of the immigrants which enable the speakers of various dialects of a single language -- dialects which were often mutually unintelligible in Europe -- to make themselves understood in the new situation? Is it a matter of being forced to learn the complete grammar of a "new language" or only of making relatively minor additions to the grammar which the speakers already possess?

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Figure 1. Generational Model of Immigration to the United States

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<tbody>
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Linguistic Change in the Colonial and Immigrant Languages in the United States

Glenn G. Gilbert
Southern Illinois University

The non-English European languages still spoken in the United States have, as a rule, undergone rapid and far-reaching linguistic change. Of greatest interest are the languages which were introduced into rural enclaves by immigrants in the seventeenth through early twentieth centuries and which are now spoken by native-born Americans of native-born parentage. The enclaves formed in the seventeenth and eighteenth centuries may be called primary; those formed in the nineteenth and twentieth centuries are secondary. The largest primary enclaves are made up of Spanish speakers in New Mexico and Colorado, French speakers in Louisiana and Texas, and German speakers in Pennsylvania. Secondary enclaves include the French Canadians of the northeast, the Mexicans of the southwest, and the Germans, Czechs, and Norwegians of the midwest and Texas. These languages, and perhaps a few others such as Dutch, Swedish, and Danish in the midwest, are spoken in sufficiently large, cohesive tracts of territory to justify the use of the traditional European techniques of topographical mapping of linguistic forms as a valuable source of data in the testing
of linguistic theories.

Up to now, there hardly exists what could be called an established linguistic geography of languages other than English in the United States. Our knowledge of the primary enclaves, where immigration was essentially completed by the beginning of the nineteenth century, is sketchy at best; the situation is still less favorable for the secondary enclaves, where members of the first generation born in the United States and even the immigrants themselves could still be interviewed, if anyone cared to do so.

There are linguistic atlases, as such, only of German in southeastern Pennsylvania (Reed and Seifert 1954, forthcoming) and in central Texas (Gilbert, forthcoming). The primary Spanish enclave in New Mexico and Colorado has been essentially ignored since Aurelio M. Espinosa's outstanding descriptive study early in this century (Espinosa 1909-1914). Although considerably more effort has been devoted to the primary French enclave in Louisiana, most investigators seem to shrink back from areal studies, chiefly because of the large number of "free variants" which abound in the grammars of the speakers. Von Wartburg (1942) was so impressed by what he called the "instability" of the language that he advised the abandonment of all plans for the preparation of a linguistic atlas.

On the other hand, such excellent studies as those of Conwell and Guillaume (1920) and Juilland (1963) and Morgan (1959, 1960) succeed in giving a systematic account of evidence gathered from entire parishes. These could
undoubtedly be expanded into a full-scale atlas if such an undertaking were materially justified in view of its expected scientific returns.

The terms "colonial languages" and "immigrant languages" were first introduced by Haugen (1956). In general, this distinction has the effect of dividing Spanish and French, in so far as they were introduced by their respective colonial powers, from all other non-English European languages brought to the Thirteen Colonies or to the United States. Priority of settlement seems to be the most decisive factor affecting the longevity or survival potential of all of these languages (Kloss 1963; Gilbert 1969:221). Generally, their most prominent characteristics are:

1) rapid linguistic change, beginning with the emigrating generation;
2) a combination of archaism and innovation, which differentiates them from their Old World counterparts;
3) widespread bilingualism in the mother tongue and in English.

One of their chief attractions has been in the fact that the great majority of speakers are fluent in two (or more) languages, with all that this implies (Haugen 1956; forthcoming). They have been of still greater interest to linguists for purposes of comparison with/without of the language still spoken in Europe (e.g., Hedblom 1969). However, let us consider a somewhat different type of problem, namely, what kinds of information about them will be of value in evaluating current linguistic theory and how may such information be
obtained. In this context the term "linguistic theory" will be restricted primarily to diachronic linguistics as viewed by generative grammarians (e.g., King 1969) and as extended by recent suggestions of Labov (1969).

Disregarding the complications introduced by the effects of bilingualism, it is important to ask: what are the changes in the grammar of the immigrants which enable the speakers of various dialects of a single language -- dialects which were often mutually unintelligible in Europe -- to make themselves understood in the new situation? Is it a matter of being forced to learn the complete grammar of a "new language" or only of making relatively minor additions to the grammar which the speakers already possessed?

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Unless unusual circumstances intervene, those members of generation 0 who settle in urban or rural areas where different dialects of their language are spoken are ultimately faced with the choice of switching to English when dealing with speakers of other dialects or of finding some kind of linguistic accommodation with them. If they choose to accommodate (and this is often a conscious choice), it is clear that various rules in their grammars will have to be optionally added or deleted (but probably never reordered). At first, such rule changes are triggered by interlocutory constraints or Partnerzwang. Later, they may become characteristic of geographical location, social structure, linguistic style, or may simply be called "free variation." Even if the presence or absence of a specific change shows no correlation with (or conditioning by) non-linguistic factors, it should still be possible to incorporate it in a meaningful way into a performance model containing an adequate generative grammar by notations of its frequency of occurrence. Such frequency rules, or variable rules as Labov (1969:728 ff.) calls them, are stated in terms of the percentage of actual occurrences within the total number of potential occurrences, for a specified corpus and under explicit extra-linguistic conditions. This precision is of great value in the study of rapid linguistic change, since the variations often serve as indicators of the type and direction of the change. Note, though, that frequency analysis deserves much careful study because of its implications for linguistic theory in general.
Figure 2. Schematic Diagram of Rule Changes by Generation
(effects of bilingualism with English disregarded here)

<table>
<thead>
<tr>
<th>Extra-Linguistic Events</th>
<th>Rule Changes</th>
<th>Generation No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>village life in Europe; relatively little social and geographical mobility</td>
<td>ratio of variable to categorical rules relatively small</td>
<td>-1</td>
</tr>
<tr>
<td>emigration from Europe to the United States within the lifetime of this generation</td>
<td>many variable rules in the grammar introduced due to emigration and attendant social upheaval; determined by interlocutor, later by style, social stratification, etc., or by &quot;free variation&quot;</td>
<td>0</td>
</tr>
<tr>
<td>born in the United States</td>
<td>a part of the variable rules of generation 0 becomes categorical; others remain variable</td>
<td>1</td>
</tr>
<tr>
<td>born in the United States</td>
<td>ratio of variable to categorical rules decreases</td>
<td>2</td>
</tr>
<tr>
<td>born in the United States</td>
<td>ratio of variable to categorical rules continues to decrease, but is still not as small as in generation -1; etc.</td>
<td>3</td>
</tr>
</tbody>
</table>

A) This parallels the explanation in terms of "primary features (categorical rule changes) and "secondary features" (variable rule changes) advanced by the Russian linguist, Victor Zhirunsky, more than forty years ago (Zhirunsky 1928-1929).
Now, within generation 0, who accommodates to whom? In other words, if two dialects, A and B, come into contact, what sociolinguistic criteria are relevant for predicting which of the two dialect grammars will undergo the most change? Aside from considerations of internal structure, the most important single factor seems to be dialect prestige, which in turn is chiefly dependent upon the similarity or dissimilarity of the grammar of a given dialect to that of the standard language. If the grammar of dialect A is markedly more similar to the standard than is B, A will acquire prestige and be imitated, even if its speakers are in the minority. Indirectly and directly, the standard language acts as a powerful model for the direction of change, bringing about what could be called a "colonial standardization effect." Other important sociolinguistic factors influencing the direction of accommodation are literacy in the standard language, relative numbers and locations of speakers, priority of settlement, marriage patterns, and religion.

Because of these processes, the ratio of variable to categorical rules will be considerably higher for speakers of generation 0 than for speakers of preceding generations. In addition, there is evidence that many of the variable rules revert to categorical status for speakers of generations 1, 2, and following, so that the ratio again declines. (see Figure 2).

How are we to sense of these changes? Are they the product of a gradual, incremental process extending over many generations? Or does there occur an abrupt restructuring involving rule reordering?
and grammar simplification, as well as rule addition and deletion? Postal (1968:286-307), King (1969:106-119), and other recent writers on the subject have presented evidence in favor of the idea of non-gradual change (in all components of the grammar), and the data from the colonial and immigrant languages seems to support this view, although much more work is needed. The childhood grammar for speakers in generation 1 can only be formed on the basis of what they hear; and since the input for them is considerably different than it was for speakers of generation 0, the internalized grammars of 1 and 0 must vary greatly. Communication between the generations proceeds relatively unhindered since what is obligatory for generation 1 is optional for generation 0. This gives rise to the common observation by laymen and specialists alike, that the speech of generation 0 is somehow fundamentally different from that of 1, 2, and following. Speakers in generation 0, because of their options, seem to have one foot in the old and one in the new, whereas for their children and grandchildren, many of these options no longer exist.

In view of what has been postulated here, it is clear that the approach used by sociolinguists (social variation of language) and linguistic geographers (geographic variation of language) is well suited to gather the crucial evidence which bears on the mechanisms of change. Studies of English from this point of view have been made by Labov (1963, 1966, 1969), Loflin (1969), Keyser (1963),
DeCamp (1962), Kiparsky (1968), and others. Becker (1967) has written on three continental German dialects from the standpoint of generative phonology. King (1969) has supplied much pertinent data inasmuch as he regards the problems of contemporary dialectology to be parallel to those of language change in general. Of special interest is the study by Pulte (forthcoming) of underlying /y/ and /ʃ/ in the German dialect spoken at Dayton, Rockingham County, Virginia. Pulte found that /y/ and /ʃ/ are not categorically subject to the low-level phonological rule,

\[
\begin{align*}
&+ \text{syllabic} \\
&- \text{consonantal} \\
&- \text{back} \\
&- \text{low} \\
&+ \text{round}
\end{align*} \rightarrow \begin{align*}
&[-\text{round}] \\
&^3
\end{align*}
\]

which is usually present in Pennsylvania German and in its secondary settlement areas in Maryland, Virginia, and elsewhere (Reed and Seifert 1954; forthcoming; Buffington and Barba 1951). Since Dayton was originally populated by German speakers from Lancaster County, Pennsylvania (which today shows only unrounding), it seems likely that the unrounding rule was once variable in Pennsylvania German. Independent evidence (Pulte, forthcoming) suggests that unrounding had become obligatory for almost all Pennsylvania German speakers by 1850 at the latest. The settlement at Dayton, Virginia, however, had been established some seventy-five years earlier; in its subsequent linguistic isolation it apparently escaped this particular phonological innovation. Among the three generations of speakers
which Pulte studied, the rule seems to be variable (or does not apply?) for the oldest generation and is categorical for the youngest generation. Furthermore, his data point to an abrupt change, thus lending support to the general position of Postal and King.

The generative approach to linguistic change in "transplanted" languages raises many problems concerning the nature of the absolute and relative alterations of rules which make up the various interacting, often closely related, dialect grammars. We are left with such unresolved questions as: does the grammar of adults change in a more superficial way (i.e., at a lower level) than that of children? Are rule addition and deletion more common than rule reordering and grammar simplification? Are high-level rules generally immune to change? Are the phrase structure rules in the base ever changed? What is the relationship between the order of the rules in a synchronic grammar and their historical ordering? And so on.

No matter how elaborate a linguistic questionnaire may be, it still remains subject to the limitations of the theory upon which it is based. Since, for example, Kurath and McDavid's voluminous study of English pronunciation in the Atlantic states (Kurath and McDavid 1961) is couched in terms of autonomous phonemes, many questions about systematic phonemic structure and rule ordering remain unanswered, as Keyser (1963) has pointed out. If it is
suspected, as some evidence indicates, that rules become more
general as they spread out from a focal point and encompass
increasingly large tracts of territory; questions must be devised
to test specifically for this phenomenon. A simple accumulation of
data, no matter how elaborate, is not sufficient; an explicit
theory of language must stand behind the plan and execution of
field work so that the attention of the investigator may be directed
toward certain crucial cases. Numerous grammatical and ungrammatical
examples should be elicited and arranged in revealing arrays
(Loftin 1969) to provide empirical data bearing on the claims or
theories to be tested.

One of our chief concerns should be with underlying representa-
tions. It is desirable to find some way to structure linguistic
interviews so as to maximize the value of the responses in
revealing underlying forms. For the phonological component, this
could mean, for example, a sequence of questions designed firstly
to elicit paradigmatic alternations and secondly syntagmatic
alternations, with a view toward the relationships of the surface
structure to the underlying morphophonemic representations. For
the syntactic component, we might want to include questions bearing
directly on certain key transformations such as equi-noun deletion,
negation, interrogation, relativization, and case. Very important
are apparent or real violations of the phonological and syntactic
constraints which are thought to form a part of universal grammar,
e.g., the presence of four or more tongue heights for non-back vowels, or word orders not listed among Greenberg's universals (Greenberg 1966), and the like.

It should be evident that the conceptual framework of transformational-generative grammar (Chomsky 1965; Chomsky and Halle 1968; etc.) has much to offer in the formulation of research methods concerning geographical and social variation in language. In return, the colonial and immigrant languages spoken in our midst can and will provide much data on crucial questions of linguistics, if only the investigators knew what was needed.
FOOTNOTES

1. A preliminary version of this paper was read at the December 1969 meeting of the Linguistic Society of America in San Francisco.

2. A recent statement of the "gradualist hypothesis" can be found in Hockett (1958:439-445). King expressly states that he is not denying that changes may spread gradually throughout a speech community; it is only the implementation of the change in the grammar of each speaker which is abrupt (King 1969:117). Although his discussion only deals with phonology, he posits the same process for the syntactic and semantic components (personal communication).

3. i.e., underlying non-back, non-low, rounded vowels become unround. The process of Entрудung is characteristic of a great number of German dialects as well as of central and southern varieties of colloquial German.

4. This could be confirmed independently if it were shown that a significant proportion of the immigrants of generation 0 in Lancaster County came from dialectal areas in Europe which lacked the unrounding rule, as for example Switzerland. Carroll E. Reed, on the other hand, believes that unrounding has been an obligatory rule in Pennsylvania German from the earliest times (personal communication).
5. A classic example is the process that operated in Germany from approximately 600 to 1000 AD, which converted tense, non-continuant, non-strident segments into their strident, non-continuant or continuant counterparts; and lax, non-continuant, non-strident segments into their tense counterparts (hochdeutsche Lautverschiebung). Contrary to prevailing opinion, Schützeichel (1961, 1964, etc.) has suggested that the rules arose in Franconian territory in west-central Germany and spread to the south. "Angesichts der 'viel größeren Bedeutung und Nacht der Franken' nimmt Schützeichel an, daß der Anstoß zur Lautverschiebung den südlichen Völkerschaften nur von den Franken her übermittelt sein köme. (...) nimmt also eine nord—südliche Entwicklung an im Gegensatz zu Frings, der sich die Lautverschiebung in umgekehrter Richtung im deutschen Raum vollziehen läßt." (Bach 1965:111). Unfortunately, the hypothesis of generative grammarians that rules are borrowed (i.e., "spread") "with the same or greater generality, but not with lessened generality" (King 1969:90 ff.) cannot help us directly in this important case, since we would then fall into the logical pitfall of allowing the two hypotheses to demonstrate each other's validity. More evidence from other, clear-cut cases with independent historical confirmation is needed.
REFERENCES


This was translated into Spanish, revised, and annotated by Amado Alonso and Ángel Rosenblat, in Estudios sobre el Español de Nuevo México (Part I: Fonética. Buenos Aires: Univ. of Buenos Aires Press. 1930); and by Ángel Rosenblat (Part II: Morfología. 1946). Regarding Part III, Rosenblat (1946:4) states: "La Parte III, dedicada a 'Los elementos ingleses', aparecerá más adelante, reehecha enteramente por el autor, en volumen aparte de nuestras Bibliotecas.'

This work was apparently never completed.


in Joshua A. Fishman, ed. Readings in the Sociology of Language. The Hague: Mouton (1968), but were unfortunately not translated.]


