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THE SOCIAL STRATIFICATION OF ENGLISH IN NEW YORK CITY

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PREFACE

The work presented in this dissertation is a study of the linguistic structure of a speech community. Its purpose is the same as that of all linguistic analysis: to discover the systematic set of contrastive relations in which the communicative function of language is accomplished. In the particular community studied here, such a coherent system does not exist for the individual speaker, but rather for the speech community as a whole. The speech of the individual New Yorker, studied in itself, shows so much unaccountable variation that it has been characterized as "haphazard," an example of massive "free variation." But when his behavior is studied in the larger context of the speech community as a whole, it is seen to be highly systematic, participating in a comprehensive structure of stylistic and social variation. It has therefore been necessary to extend the study of linguistic structure to include a wide range of stylistic and social variation, as well as subjective reactions, which had previously been considered inaccessible to formal linguistic analysis.

One of the essential steps required for the procedure followed here is a socially realistic description of linguistic behavior. Many of the techniques of empirical sociology have been utilized here for this purpose, not only in survey

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methodology, but also in conceptual analysis. It is hoped that this debt may be repaid by the utility of some of the results and procedures, for the social scientist. The phonological indexes used in this study provide a reliable quantitative indicator of social processes, sensitive enough to reflect the influence of many independent variables. The analysis of the correlations of social class indicators with linguistic behavior may serve to clarify questions of social structure as well as linguistic structure. Thus from the point of view of the social scientist, language may be considered as the most sensitive indicator of other social processes, rather than simply another strand in the texture of social stratification.

In the presentation of the methods and results, an effort has been made to avoid undefined technical terms, so that the material is as accessible as possible to those without special linguistic training. A glossary is provided [on fold-out page 544] in which linguistic terminology as well as the symbolic notation is defined.

This work has been carried out under the direction of Professor Uriel Weinreich. It is impossible for me to acknowledge properly my indebtedness to him by footnotes and citations alone; his help and encouragement have been important at every stage. His influence may perhaps be seen most strongly in two main themes of this study: the empirical investigation of many forms of linguistic behavior, not as an end in itself, but as a means of advancing the general theory of linguistic

-3 structure and linguistic change; and an insistence on the extension of structural principles in the study of language, rather than a retreat from those principles.

Many suggestions of Professor Herbert Hyman, of the Department of Sociology, Columbia University, have been incorporated in this study; his influence appears not only in the approach to survey methods, but in conceptual analysis as well. Professor William Diver's help has been important in sharpening the initial approach to phonemic analysis.

The financial support of the American Council of Learned Societies, throughout the major portion of this study, is gratefully acknowledged. ACLS support made it possible to enlarge the field work to a point where the results may be said to rest on adequate empirical data, and are not merely suggestive or programmatic. The assistance of Mr. Michael Kac, of Haverford College, in the survey of the Lower East Side, was of great value in standardizing the field techniques and freeing them from dependence on idiosyncratic methods. Mr. Kac not only served as a reliable and efficient field worker, but also as a valuable associate in the attack on problems of transcription and codification.

During the major part of this work, the author also held a Woodbridge Fellowship from Columbia University.

The linguistic survey of the Lower East Side would have been far less accurate and reliable if it had not been based upon the primary survey carried out by Mobilization for Youth in 1961. For permission to use the survey materials,

I am deeply indebted to Mobilization for Youth and the New York School of Social Work. I should like to acknowledge particularly the help of Dr. Lloyd Ohlin, Director of Research of the New York School of Social Work, and Dr. Wyatt Jones, Director of Research of Mobilization for Youth, who placed their facilities at my disposal, and offered encouragement and material support in countless ways.

Many suggestions have been derived from discussions with members of the Mobilization for Youth staff; I am particularly indebted to John A. Michael, Paul Lerman, Donald Pappenfort, and Warren Mintz.

I should also like to acknowledge the help of Kenneth Lenihan, of the Bureau of Applied Social Research, Columbia University, whose advice has been important at several stages of the empirical procedures in this study.

I have also profited from discussions with Dr. Marvin Herzog of Columbia University, whose searching questions have precipitated a number of re-analyses and fresh treatments of the relation of language and society.

It would be difficult to assess the full importance of the support given by my wife Teresa, whose thoughtful criticism contributed to the solution of many analytical problems. I should also like to acknowledge the patience of my children in tolerating the suspension of many of the normal functions of family life which preceded the completion of this project.

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PART I

PROBLEMS AND METHODS OF ANALYSIS

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CHAPTER I

THE STUDY OF LANGUAGE IN ITS SOCIAL CONTEXT

The work which is reported in this study is an investigation of language within the social context of the community in which it is spoken. It is a study of a linguistic structure which is unusually complex, but no more so than the social structure of the city in which it functions. Within the linguistic structure, change has occurred on a large scale, and at a rapid pace which is even more characteristic of the changing structure of the city itself. Variability is an integral part of the linguistic system, and no less a part of the behavior of the city.

To assess the relative complexity of the linguistic problem presented by New York City, we may compare this investigation to an earlier contextual study of a sound change on the island of Martha's Vineyard, Massachusetts.[1]

This earlier work traced the distribution of a particular sound feature as it varied through several occupational, ethnic and geographic sub-groups of the population, and through three generations of native islanders. The objective pattern of language behavior was seen to be correlated with the over-all social pattern of differential reaction to specific economic strains and social pressures; it was then

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possible to assign a single social meaning to the linguistic feature in question. It was thus demonstrated that social pressures are continually acting upon the structure of a language, as it develops through the mechanism of imitation and hypercorrection.

In turning to the speech community of New York City, we are faced with a much more complex society, and linguistic variation of a corresponding complexity. On the Vineyard, the six thousand native residents are essentially single-style speakers: they show relatively little change in their linguistic behavior as the formality of the social context changes. In New York City, the population to be sampled is more than a thousand times as large, with many more divisions of social class and caste. Neither the exterior nor the interior boundaries of the New York City community are fixed, as Martha's Vineyard's are: for within the limits of the island, the sharp distinction between the native residents and the newcomer permits little equivocation. In New York, mobility is a part of the pattern, and the long-term native is not necessarily an element of influence in the speech community. Large numbers of people live within the city yet on the boundaries of the speech community, and the line which divides the native speaker from the foreigner is broken by many doubtful cases. The area of New York City that we have chosen for intensive study--the Lower East Side--does not represent a simplification of the problem. On the contrary, it is an area which exemplifies the complexity of New York City

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as a whole with all its variability and apparent inconsistencies.

The study of linguistic structure

The investigation of New York City is more complex than the Martha's Vineyard study in another sense: instead of limiting the investigation to a single sound feature, we will eventually deal with the New York vowel system as a whole. The one point of view which would probably meet with general approval from all linguists today, is that the prime object of linguistics is the structure of language, not its elements. In this study, we will be dealing with the structure of the sound system of New York City English--because it is the most amenable to quantitative techniques. Within this system, the question of structure can be approached on a number of levels of organization of increasing complexity.

The individual sound which we hear is in no way a structural unit. Many different sounds may have the same function in distinguishing words; the linguist considers them non-distinctive variants of a single structural unit, the phoneme.[2] Phonemes in turn may be organized into larger systems such as a system of vowel phonemes or consonant phonemes. A great deal of attention has been given by linguists to the description of such larger systems, and to the methods for deciding which of several possible organizations of linguistic facts is most correct, convenient, or justifiable.

It is generally considered that the most consistent and coherent system is that of an idiolect--the speech of one person in the same context, over a short period of time. According to this view, as we consider the speech of that individual over longer periods, or the combined dialects of a neighborhood, a town, or a region, the system becomes progressively more inconsistent. We find an increasing number of alternations which are due to stylistic or cultural factors, or changes in time--and these are external to language, not a part of linguistic structure.[3]

The present study adopts an entirely opposite view of the relative consistency of idiolect and dialect in the structure of New York City English. We find that in New York City, most idiolects do not form a simple, coherent system: on the contrary, they are studded with oscillations and contradictions, both in the organization of sounds into phonemes, and the organization of phonemes into larger systems. These inconsistencies are inexplicable in terms of any data within the system. To explain them in terms of borrowing from some other, unknown system is a desperate expedient, which eventually reduces the concept of system to an inconvenient fiction.

The solution to this problem is the over-all program of the present investigation. We will begin by turning our full attention to the sources of inconsistency, and treat them as continuous phonological variables rather than fluctuating constants. These will be codified and measured on a quantitative, linear scale. The data must then be enlarged

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to include the whole range of styles available to the speaker. This will require a precise separation of contextual styles, and methods of extending the interview situation to include casual and spontaneous speech. An exact statement of the relations between the styles of one speaker, through measured differences in the values of the variables, begins to account for the apparently erratic behavior noted at the outset.

A further extension of the data to include a representative sample of speakers throughout the community, from social and ethnic sub-groups, yields an over-all system of great consistency, in which the linguistic behavior of the individual fits into a highly structured pattern.

A formal definition of structure will be introduced, in order to assess the degree of regularity which prevails in such a complex array of relationships. As patterns are repeated, linguistic behavior which appears to be irregular in the first steps of analysis, will be seen as part of a regular structure in a more complex system.

Relationships between linguistic variables and social variables will be studied in a number of ways. The language variables for any given sub-group will be viewed as average values of an index, and as distribution profiles of individual values. Social stratification of language will be measured first by a previously constructed index combining education, occupation, and income, and this will then be re-analyzed to discover that combination of social characteristics which is most closely correlated with linguistic behavior. The relations of sex and ethnic differences to linguistic behavior will then be examined.

The dimension of time will then be added to this scheme, by studying the distribution of the variables in various age groups, and by comparison with reports of earlier investigators. Further ambiguities in structural presentation are resolved by this step; it is the view of historical developments in real time that allows a decisive choice between abstractions, and demonstrates whether our view of structural relations is accurate or wide of the mark.

The final step is the investigation of the subjective significance of the linguistic variables, as the informant hears other speakers, and as he hears himself. It will be demonstrated that a change in unconscious subjective evaluation may precede and outrun a change in objective performance. It is in this area of study, as many of the variables reach near-constant values, that we finally return to that absolute regularity which is such a marked characteristic of linguistic behavior.

The resulting view of the language of New York City shows a single speech community, united by mutual agreement on the social meaning of linguistic variables, but divided by increasingly divergent use of these variables in speech. Within this community, we find two radically different vowel systems, developing in opposite directions. One is part of a newly superimposed prestige pattern, borrowed from the neighboring dialect areas of Northern speech. The other is the traditional system of New York City, continuing its earlier evolution with new mergers and phonological chain

shifts. Within this traditional system, there are signs of movement in contrary directions, which may eventually result in two clearly distinct systems.

That New York City is a single speech community, and not a collection of speakers living side by side, borrowing occasionally from each others' dialects, may be demonstrated by many kinds of evidence. Native New Yorkers differ in their usage in terms of absolute values of the variables, but the shifts between contrasting styles follow the same pattern in almost every case. Subjective evaluations of native New Yorkers show a remarkable uniformity, in sharp contrast to the wide range of response from speakers who were raised in other regions.

Traditional dialect studies have shown that isolation leads to linguistic diversity, while the mixing of populations leads to linguistic uniformity. Yet in the present study of a single speech community, we will see a new and different situation: groups living in close contact are participating in rapid linguistic changes which lead to increased diversity, rather than uniformity.

Our understanding of this apparent paradox stems from the recognition that the most coherent linguistic system is that which includes the New York speech community as a whole. It is a long-standing axiom of structural linguistics that a system is essentially a set of differences. De Saussure's conception of the phoneme has been applied to all kinds of linguistic units:[4]

> They are characterized, not by the particular and positive quality of each, but simply by the fact that they are not confused with each other. Phonemes are above all, contrasting, relative, and negative entities.

For a working class New Yorker, the social significance of the speech forms that he uses, in so far as they contain the variables in question, is that they are not the forms used by middle class speakers, and not the forms used by upper middle class speakers. The existence of these contrasting units within the system presupposes the acquaintance of the speaker with the habits of other speakers. Without necessarily making any conscious choice, he identifies himself in every utterance by distinguishing himself from other speakers who use contrasting forms.

Some earlier restrictions on linguistic study

The procedure which is outlined above may be termed historical and contextual, and above all, empirical. Its aim is the understanding of the mechanism of linguistic change, and of linguistic evolution in general. The hypotheses that will be constructed here will be designed to lead to empirical confirmation or disconfirmation, and the intention is to make no statement for which there is no empirical evidence within the study itself. No limits are set as to the type of data which are relevant, so long as they are reliable and valid, and clearly correlated with linguistic behavior. The claim is made here that only

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a socially realistic description can show a consistent and coherent structure for the speech of this community.[5]

In order to carry out this program, it will be necessary to disregard certain restrictions on the scope of investigation that have been imposed upon twentieth-century linguistics. They can be quoted in the forms that have been given them at various times by leading figures in the field. Although it might be difficult to find many who would explicitly endorse all of these restrictions, the combined result will give us a fairly accurate picture of the constraints placed on linguistic writings in the past five decades.

1. Synchronic structural systems and diachronic [historical] developments must be studied in isolation. This principle was enunciated most clearly by Ferdinand de Saussure at the beginning of the century:[6]

> The difference in kind between successive and coexistent terms . . . excludes the use of both as the material of a single science. [p. 124]
> . . . Thus the synchronic 'phenomenon' has nothing in common with the diachronic one. [p. 128]

It has often been pointed out that de Saussure's caveat laid the foundation for the structural study of language, but as an absolute principle, it has not been highly regarded. The application of structural arguments to historical changes has never been abandoned, and it has been followed with great vigor in recent years.[7] However, the introduction of time depth into synchronic studies of present-day languages is another matter, and here the restriction seems to hold. For our present purposes, it will be necessary to regard a syn-

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chronic structure as an instantaneous description of a present state with each unit marked as to its direction and rate of change.

2. Sound change cannot be directly observed. The well-known statement of Bloomfield on this point may be quoted:[8]

> The process of linguistic change has never been directly observed; we shall see that such observation, with our present facilities, is inconceivable.

Logically, Bloomfield's statement is unassailable if it is taken to mean that we cannot observe sound change in the same way that we watch crystals grow or cells divide. Like other forms of social change, linguistic change is a change in a pattern of behavior, and it must be observed by inference from the sampling of discrete stages. But Bloomfield's statement is extended to exclude the possibility of such inferential observations as well:

> We must suppose that, no matter how minute and accurate our observation, we should always find deviant forms, because . . . the forms of the language are subject to the incessant working of other factors of change, such as, especially, borrowing and analogic combination . . . [p. 364]

Bloomfield's argument was avowedly designed to support the neo-grammarian assumption of the absolute regularity of sound change, despite the observed irregularity of empirical data. In actual observations, we find that change proceeds by fits and starts; that the newer form is heard in some words, and the older form in others; that some groups of speakers lead in the change, while others lag. This irregularly advancing

front does not answer Bloomfield's requirements for a perfectly regular, gradual shift in a sound pattern which is never ragged, never retrograde. The net effect of this argument was to remove the empirical study of linguistic change from the program of twentieth-century linguistics. Since borrowing and analogy were considered relatively unsystematic processes, and sound change was unapproachable, there remained nothing to do but construct abstract models of an unobservable process.[9] The point of view of the present study is that sound change is just this mixed effect of borrowing, analogy, imitation, and hypercorrection, and that the processes which produced historical changes are similar to those that we are witnessing today.

3. Feelings about language are inaccessible. This restriction has not been discussed as freely as the others, except where linguists have used it to combat the excesses of a normative approach to language. However, the following statement by Bloch and Trager in the Outline of Linguistic Analysis is pointed enough:[10]

> The native speaker's feeling about sounds or about anything else is inaccessible to investigation by the techniques of linguistic science, and any appeal to it is a plain evasion of the linguist's proper function. The linguist is concerned solely with the facts of speech. The psychological correlates of these facts are undoubtedly important; but the linguist has no means--as a linguist--of analyzing them.

As an antidote to crude psychologizing in the place of phonemic analysis, this statement may have served admirably well. But it seems to be cast in an unnecessarily absolute form reflecting a certain purism that seems to have crept

into twentieth-century linguistics. It is possible that too much concern with the image of the linguist--with what the linguist is permitted to do as a linguist--may interfere with one's view of language as it is spoken.[11]

4. The linguist should not use non-linguistic data to explain linguistic change. This point of view may be considered more a statement of policy, or a focus of attention, than a prohibition. It was originally directed against theories which attempted to correlate linguistic change with such factors as climate, inherited differences in physiology, invasions, and revolutions.[12] André Martinet, in Économie des changements phonétiques, turned linguists' attention away from such remote and occasional factors, and showed that the internal relations of linguistic systems produced constant pressures towards changes that were present in every act of communication. His point of view is supported by evidence of the present study, and many references will be made to Martinet's analysis of structural pressures towards linguistic change [particularly in the final synthesis of Chapter XIV]. However, in emphasizing the importance of the structural relations of functional units, Martinet has laid unnecessary restrictions on the linguist. In a report to the Ninth International Congress of Linguists in 1962, Martinet declared:[13]

> It is clear, of course, that any language . . . is exposed to changes determined by impacts from outside; no one will doubt that man's changing needs in general will affect his communicative needs which in turn, will condition linguistic structure. The impacts from outside may consist in the pressure exerted on each other by two languages 'in contact.'

> The linguist will feel competent to deal with the latter, but he may be excused if, in his capacity as a linguist, he declines the invitation to investigate sociological conditioning.

Martinet himself has shown a broad range of interest in the study of language in its social context, yet the statement given above reflects a policy which is followed by many who would apply Martinet's ideas. Attempts have been made to explain linguistic change by juxtaposing abstract models of linguistic systems which were in fact separated by many centuries and extensive geographic dislocation. The painstaking inquiries of historical linguists into dialectal variations and intermediate stages have been overlooked or disregarded.[14] Such bold abstractions draw support from Martinet's confidence that structural explanations based on the internal economy of the system are sufficient to account for linguistic change, with the possible exception of a drastic dislocation or invasion a millenium ago. However, it has been pointed out that most linguistic changes occur with a specificity of time and place that resist explanation in Martinet's terms. Evidence in this study, and in the earlier work on Martha's Vineyard, runs counter to Martinet's notion that social forces operated on language only in the remote past. Martinet's reliance on communicative function in the narrowest sense also seems to have played a part in his general argument: the indications of the present studies are that the role of language in self-identification, an aspect of the expressive function of language, is more important in the mechanism of phonological change.

Some earlier studies of language in its social context

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Despite the fact that some of the restrictions on the scope of linguistic study are stated in a rigid form, they may best be regarded as temporary expedients adopted by linguists to serve particular ends. In setting them aside, we are returning in one sense to the sound empirical base which formed the methodology of linguistics before a split had developed into dialectology on the one hand, and structuralism on the other.

It may be appropriate to quote at some length from a lecture delivered by Antoine Meillet in 1905 before a class in general linguistics. Meillet had worked intensively in many areas of Indo-European historical linguistics; his remarks show that he had already formed a clear conception of a socially realistic linguistics which would continue the empirical tradition which he had absorbed. He began with the observation that all historical laws which had been discovered in the nineteenth century were still to be considered as mere possibilities.[15]

> . . . we must discover the variables which permit or induce the realization of the possibilities thus recognized.

Meillet added that this variable cannot be the structure of the physical organs, or a mental function:

> But there is an element in which circumstances induce continual variation, sometimes rapid, sometimes slow, but never completely suspended: it is the structure of society.

He continued with an analysis which is remarkable for its brevity and clarity:

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> . . . it is probable, a priori, that every modification of social structure is expressed by a change in the conditions from which language develops. Language is an institution with its proper autonomy: we must therefore discover the general conditions for development from a purely linguistic point of view, and this is the object of general linguistics, with its anatomical, physiological, and psychic conditions . . . but from the fact that language is a social institution, it follows that linguistics is a social science, and the only variable to which we can turn to account for linguistic change is social change, of which linguistic variations are only consequences.
>
> We must determine which social structure corresponds to a given linguistic structure, and how, in a general manner, changes in social structure are translated into changes in linguistic structure.

It is evident, from the record of the ensuing years, that neither Meillet nor his students took this prospectus with full seriousness. That nothing further was accomplished along these lines may have been due to the fact that the views of de Saussure were just beginning to take hold at that time, and linguistics turned in a completely different direction. We can now return to this area of work with more adequate equipment than Meillet could have brought to bear upon such difficult problems. Not only do we have a more explicit theory of phonological structure, but we also possess such useful tools as tape recording, spectrograms, methods of sampling and handling large quantities of data.

Before proceeding to the discussion of the methods used in the present study, it would be best to review some of the more concrete achievements of the intervening years in the empirical study of language in its community context.

I-16 The references will be discussed under the heading of the particular restriction on linguistic investigation which was necessarily disregarded by those undertaking the work.

1. Empirical studies of linguistic change in progress. This is a category which is unfortunately almost empty. There are, of course, innumerable studies of linguistic change over long periods of time, utilizing texts and the comments of contemporary observers. But there are very few systematic studies of communities in which the observer analyzed the speech of successive generations to study the development of change. [See Chapter IX for an elaboration of such methods.] In 1899, Gauchat began the study of the speech of Charmey, a village in French-speaking Switzerland, and found systematic differences in the treatment of six phonological variables by three successive generations. His study, "L'unité phonétique dans le patois d'une commune" [1905][16] attracted a great deal of comment, particularly from neo-grammarian theoreticians who tried to explain away his findings as nothing but a complicated series of borrowings.[17] M. E. Hermann [1929] restudied Charmey, and his results confirmed Gauchat's inference of phonological change in four of the six items.

H. Kurath's plan for the Linguistic Atlas of New England [1941] called for the selection of at least one old and one middle-aged informant in each community; this arrangement has permitted analysis of linguistic changes in progress, such as that by W. S. Avis [1961] of the receding pattern of New England short /o/. The Linguistic Atlas records were also utilized

-17 by the present writer in the earlier study of Martha's Vineyard [1963], although the distribution of speech sounds in successive generations of the contemporary community formed the primary data. Kranzmayer [1953] published a study of sound changes in the Viennese dialect, which he had personally observed since 1910.

In addition to these few studies, there have been many observations on differences in the speech of older and younger subjects, in the course of dialect studies. However, the number of investigations that have been systematically planned to study linguistic change in progress are very few indeed.

2. The structural analysis of historical changes. Martinet, in the opening pages of his Économie des changements phonétiques, cites some of the earlier observations of such nineteenth century phoneticians as Sweet and Passy. Earlier in this century, some important steps were taken by N. van Wijk, and A Pfalz. Pfalz [1918] applied some earlier ideas of van Wijk to the structure of contemporary German dialects, with particular attention to front-back symmetry in the vowel system;[18] he explained the symmetric movements of front and back vowels as a product of changes in the "base of articulation" characteristic of the language in question.

Martinet's theories of the internal economy of phonological structures [1952, 1955] were more comprehensive and systematic than any published previously. The most important empirical verification of these concepts has been provided by

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W. Moulton [1960, 1961, 1962], who studied the geographic distribution of structural variations in the dialects of Swiss German, and demonstrated the existence of regular historical tendencies to fill empty spaces in phonological structures, and to equalize distances between functional units in phonological space. Following Moulton, Kufner [1957, 1960] has carried out further investigations of this type. In his programmatic article, "Is a Structural Dialectology Possible?" U. Weinreich [1954] demonstrated the difficulties of applying the concept of a closed structure to the almost continuous range of partial similarities and differences which constitute "dialects" in the traditional sense. He showed that the primary problem of a structural dialectology is that of breaking down the continuum into discrete units, a problem which is faced in the present study.

A very different type of structural analysis from that considered above has been applied to historical developments by M. Halle [1962], and others. Following the general approach to linguistic theory developed by N. Chomsky [1955], Halle has described historical changes as adjustments in a series of rules for the realization of words [or morphemes] as sets of acoustic features.

A statistical approach to phonological variation in recently settled areas was provided by D. W. Reed and J. L. Spicer in their study of a transition area in California phonology [1952].

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3. Studies of subjective evaluation of language. There are even fewer citations which can be made under this heading than under the first. G. N. Putnam and E. M. O'Hern [1955] published a dissertation on The Status Significance of an Isolated Urban Dialect. The speech of Negro residents of a particular neighborhood in Washington was studied, and recordings of some were played to a selected group of judges from outside the area who evaluated the status of the speakers. This work suffered from a number of limitations: the selection of informants was totally unsystematic, and from the occasional background information which was collected, it appears that only a minority of the informants had any connection with the neighborhood or Washington during their formative years.[19] The speech of the informants was judged as a whole, and it is not clear what the judges were reacting to, or how representative their judgements were.

W. A. Grootaers [1959] reported on efforts to determine the "Origin and Nature of the Subjective Boundaries of Dialects." The inhabitants of a number of Japanese villages were asked if the language of their own village differed from that of a number of neighboring villages, and to what extent. Grootaers reported a negative result, that subjective consciousness seems of little value in linguistic research. Yet his results seemed very rich, and his disappointment stemmed from the fact that he expected to use subjective reactions as a base for the study of dialect units and dialect boundaries, rather than as a separate plane of linguistic behavior.

A series of carefully controlled experiments to test evaluational reactions to speech have been carried out in recent years by W. E. Lambert and associates. These investigators began with the concept that "spoken language is an identifying feature of members of a national or cultural group and any listener's attitude towards members of a particular group should generalize to the language they use." They tested the reactions of English Canadians to the recorded voices of English and French speakers, [Lambert 1960], and asked the judges to evaluate the personality of the speakers. The judges did not know that the same bilingual speakers were using French in one recording, and English in another. The judgments of personalities proved to be influenced favorably by the use of English, negatively by the use of French. Similar tests were carried out for English and English spoken with a Jewish accent [Anisfeld 1962] and in Israel, for Arabic, Ashkenazic and Sephardic Hebrew [Lambert 1963]. Though these experiments established the importance of general linguistic signals in expressive communication, they did not isolate subjective reactions to any particular features of a language.

4. Studies of linguistic behavior in its social context. There are a great many studies which might be cited in this area; anthropologists, linguists, psychologists and sociologists have all contributed to the study of language in its social context, in approximately that order of magnitude. The works that will be mentioned here are primarily the

empirical studies which have isolated socially significant variables of a language.

The programmatic article of D. Hymes [1961], "The Ethnography of Speaking," sets up a general framework for the study of the speech community, and gives an excellent bibliography of previous accomplishments in this field. Some of the most important contributions have come from anthropologists working in Southeast Asia [Ferguson and Gumperz 1960]. Gumperz [1958] studied ten phonological variables in an Indian village with 31 social castes, and found six caste groups differentiated by these linguistic indicators. Bright and Ramanujan [1962] studied the evolution of upper and lower class dialects in Kanarese, Tamul and Tulu, finding evidence for independent developments on both conscious and unconscious planes.

Fischer [1958] studied social influences on the use of -ing by a class of New England school children, and suggested a much broader program for linguists and anthropologists in this area. A methodology for studying socio-economic differentials in language was suggested by Sapon [1953], but no results seem to have appeared.

The linguists who have contributed most to the study of language in its social context are primarily those who have worked in dialect geography. Almost all studies in this field show some concern with the social context in which speech occurs, although the community is primarily regarded as a point in a geographic matrix. [Roedder 1926, Bottiglioni 1954].

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The most important step forward towards a socially realistic dialectology was taken by Kurath [1941] who designed the Linguistic Atlas of New England, and its later extensions, to include informants of several social types in each community studied. McDavid [1948] drew upon this information to analyze the social significance of post-vocalic /r/ in South Carolina. McDavid and Pederson [1962] are currently engaged in a large-scale study of the social dialects of the Chicago area.

Herzog [1963], drawing upon the materials of the Language and Culture Atlas of Ashkenazic Jewry, showed that both structural linguistic factors, and social factors, were required to account for the distribution of dialects in a transition area of northern Poland.

A number of studies by A. W. Read [1936, 1938] have illuminated the social context in which the development of American English has taken place. In a recent study of the genesis of O.K. [Read 1963], he showed how a particular linguistic attitude in one American community produced a proliferation of abbreviations, of which O.K. was the most successful surviving member.

One of the few quantitative studies of phonological features within a community is that of Reichstein [1960]. She tested 570 Paris schoolgirls for phonemic contrast in minimal pairs involving /a-ɑ/, /ɛ - ɛ:/, /ɪn - œn/; it was found that these phonemic contrasts are disappearing rapidly, and that certain working-class districts in the interior of the city are leading in this respect.

In general, it may be said that psychologists and sociologists have lacked the linguistic training required to isolate particular elements of language structure, and have worked primarily with vocabulary or content analysis. Bernstein [1959, 1960] has dealt with the relations of social class to British English in a series of articles. Schatzman and Strauss [1955] analyzed the reports of a disaster given by rural Arkansas speakers of several class levels, and found differences in perspective and style of narration; evaluations of speech are freely given by the authors, but without any formal method.

Lerman [1962] incorporated in a social survey of youth, ten questions on slang words associated with delinquent activities; knowledge of the meaning of these words was correlated with delinquent behavior, and with the age at which children enter groups which participate in this behavior.

A great many other works might be cited which make general observations on the relations of language and society, but such essays have contributed little to our knowledge of these relations. The most detailed contributions have come from the anthropologists working in Southeast Asia. However, for the study of the complex communities of the United States and Western Europe, it appears that quantitative methods are required; of all the studies cited here, only Reichstein's can fairly be placed in that category.

Quantitative techniques are required for dealing with speech communities as complex as New York City. In the

I-24 following chapter, the problems of studying the language of New York City will be discussed, and the methods used by previous studies of the city's speech in dealing with these problems. The principle devices used in the present study for the analysis of this complex situation--the five main phonological indexes--will then be selected and defined.

NOTES TO CHAPTER I

[1]W. Labov, "The Social Motivation of a Sound Change," Word 19:273-309, 1963.

[2]For this and other technical terms of linguistics which are needed for the discussion, see the glossary on page 545.

[3]A precise statement of this position and the disposition of the problems involved may be found in Z. Harris, Methods in Structural Linguistics, (Chicago: University of Chicago Press, 1951), page 9. "These investigations are carried out for the speech of one particular person, or one community of dialectically identical persons, at a time . . . In most cases, this presents no problem . . . In other cases, however, we find the single person or the community using various forms which are not dialectally consistent with each other . . . We can then doggedly maintain the first definition and set up a system corresponding to all the linguistic elements in the speech of the person or the community. Or we may select those stretches of speech which can be described by a relatively simple and consistent system, and say that they are cases of one dialect, while the remaining stretches of speech are cases of another dialect." The evidence first presented in Chapter II, and then in the rest of this study, shows that the inconsistency found in most New York City idiolects is so great that the first alternative of Harris is impossible, and the second implausible.

The point of view of Charles F. Hockett, A Course in Modern Linguistics, (New York: MacMillan Co., 1958) is that descriptive linguistics ignores interpersonal differences, confining its attention to the language as a whole, while a study called synchronic dialectology takes up problems such as our present one by beginning with the idiolect. It still remains to be shown, however, that a single consistent system can be constructed for American English as a whole, accounting for all of the linguistic facts. In approaching the problem of the mechanism of linguistic change, it seems best then to begin with speech communities no larger than this one.

[4]Ferdinand de Saussure, Cours de linguistique générale, (Paris: Payot, 1949), page 164. (My translation.)

[5]By socially realistic, I mean a description which takes into account the distribution of language differences throughout the community, and necessarily preserves the data on the age, sex, education, occupation, and ethnic membership of the speakers studied.

[6]De Saussure, op. cit. The original edition of this work was prepared by the author's students from notes taken in his courses, and appeared posthumously in 1916. A close analysis of de Saussure's main tenets, and the position of his ideas in later linguistic thought, may be found in Rulon S. Wells, "De Saussure's System of Linguistics," Word 3:1-31 (1947).

[7]One of the leading figures in this development is André Martinet, who is cited as the exponent of a different restriction in No. 3. Martinet's theoretical approach to the explanation of linguistic change is presented concisely in "Function, Structure and Sound Change," Word 8:1-32, 1952. A fuller treatment is given in Économie des changement phonétiques, (Berne: A. Francke, 1955). Many of Martinet's ideas have found application in the present study.

[8]Language, (New York: Henry Holt, 1933), page 347.

[9]Bloomfield's original prohibition has been repeated by C. F. Hockett, A Course in Modern Linguistics (New York: MacMillan, 1958), Chapter 52. Hockett's statement of Bloomfield's position is given at the outset: "No one has yet observed sound change: we have only been able to detect it via its consequences. We shall see later that a more nearly direct observation would be theoretically possible, if impractical, but any ostensible report of such an observation so far must be discredited." Hockett's hypothetical suggestion for the study of sound change involves a thousand accurate acoustic records made each month from the members of a tight-knit community for a period of fifty years. Of this point of view, Weinreich wrote in his review: "It is hard to feel comfortable with a theory which holds that the great changes of the past were of one kind, theoretically mysterious and interesting, whereas everything that is observable today is of another kind, transparent and (by implication) of scant theoretical interest." Romance Philology XIII, 329-332, 1959.

[10]Bernard Bloch and George L. Trager, Outline of Linguistic Analysis, (Baltimore: Linguistic Society of America, 1942), page 40.

[11]The evidence to be presented in Chapter XI indicates that subjective reactions to individual sound features are by no means as inaccessible as Bloch and Trager thought. However the method employed here serves an entirely different purpose than the psychological one which Bloch and Trager rejected.

[12]A review of a number of such theories is given by A. Sommerfelt, "Sur la propagation des changement phonétiques," Norsk Tidsskrift for Sprogvidenskap, IV:76-128, 1930.

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[13]Proceedings of the 9th International Congress of Linguists (to appear). Martinet's report on "Structural Variation in Language" embodied this prohibition in even stronger terms as delivered on the floor. Objections were raised by several European linguists on behalf of geographic and other "external" data, but no comment was made on the exclusion of socially determined conditions.

[14]An example of such an a-historical treatment of linguistic history may be found in H. Pilch, "The Rise of the American English Vowel Pattern," Word 11:57-93, 1955. Pilch used Martinet's ideas "to trace in outline the history of the American English vowel pattern from the time of its geographical separation from British English." The "outline" consisted of three points: Kökeritz' reconstruction of 16th century pronunciation, Pilch's own observations of modern American dialects, and one "connecting link": the vowel pattern described by Noah Webster in 1800.

[15]Linguistique historique et linguistique générale, (Paris: La Société Linguistique de Paris, 1921.), pp. 16-17.

[16]To avoid the multiplication of footnotes, the references to literature in the remainder of the chapter will be cited in the text by author's name and date of publication; full information on each of the references is given in the Bibliography.

[17]P. G. Goidanich, "Saggio critico sullo studio de L. Gauchat," Archivio Glottologico Italiano XX: 60-71, 1926, (cited by Sommerfelt, op. cit.)

[18]The rules given by Pfalz for front-back symmetry may be useful for comparison with the empirically determined developments of (eh) and (oh), (ay) and (aw), in this study. "In an indogermanic language, co-existing front and back vowels pass through the same types of sound change, in so far as they possess the same height and tension, and so long as the one vowel remains a front vowel and the other a back vowel. If in an indogermanic language co-existing vowels of equal height and tension are diphthongized, this diphthongization will follow parallel routes, in that the second members of the diphthong will remain in the same relation to the first." (My translation.)

[19]Of 39 informants whose place of birth was known, only three were born in the neighborhood; 15 in Washington, and the rest in southern states. Of 62 informants whose length of residence was known, only 20 had lived in the neighborhood more than 15 years, and 16 had lived there less than 5 years.

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CHAPTER II

FIRST APPROACH TO THE STRUCTURE OF NEW YORK CITY ENGLISH

It is safe to say that the language of New York City is better known to the people of the United States as a whole than the language of any other single city. The great majority of our informants report that when ever they travel outside of the city, they are quickly identified as New Yorkers.[1] On radio and television, more or less accurate stereotypes of middle class and working class New York speech have traditionally been used for comic effects. For many years, several other features of working class and lower class New York City speech have been stigmatized under the label of Brooklynese. In Minnesota or Pittsburgh, the speech of lower class New Yorkers may be imitated by boys who think of this style as a symbol of the tough, hard life and defiance of authority. Indeed, some of these sound features have entered into a folk mythology. Great numbers of people, including New Yorkers, have been amused by the appearance of dem and dose, boid and shoit as they see these forms in print or hear them on the stage, without realizing that they themselves use the same vowels and consonants as the original speakers who are being caricatured.

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Previous studies of the language of New York City

In 1896, E. H. Babbitt published a brief description of "The English of the Lower Classes in New York City and Vicinity," in the first volume of Dialect Notes.[2] It is one of the earliest descriptions of an urban dialect by an American linguist, and the information is exceptionally valuable for the interpretation of linguistic changes now in progress in New York City. Babbitt's notes were made during six years spent in New York City, teaching at Columbia University.

> "The guards on the elevated roads, the tradespeople, some of my students, the servants in my kitchen and those of my friends, the newsboys, hawkers and "barkers," the school-children in school and out, have all contributed material."

By the "lower classes," Babbitt means about 90% of the population--all New Yorkers except the upper class, who "live a life of their own, travel a great deal, and educate their children in private schools, in which most of the teachers are not New Yorkers." Babbitt's observations of the linguistic situation in New York City show an uncanny resemblance to the one we observe today. On the one hand "a New Yorker who has four American-born grandparents is a rarity, and . . . a great majority have not one"; yet on the other hand

> there is a distinct New York variety of English pronunciation, used by a large majority of the inhabitants, and extending over a considerable district. It is most marked in the lower classes, who do not travel nor come under outside influences; but it is rare to find any person who learned to speak in New York who cannot be recognized before he has spoken two sentences.

The view maintained in the present study is that New York City

is a single speech community; Babbitt comments:

> In spite of diverse origins, the population of New York is singularly homogeneous socially and intellectually, as soon as you get below the distinct upper classes.

Babbitt saw clearly that the vast numbers of European immigrants had little influence on the New York City dialect of English: "after a generation, or even sooner, [they] are fully amalgamated, without exerting any sensible influence to change in their direction the general current."

Although Babbitt's description of the phonology of the City is brief, it is based upon evidence with which he was surrounded, and he seems to have made good use of his opportunities. It is unfortunate that the more elaborate surveys which were made in recent decades did not show the same sense of social realism. For one reason or another, all of the studies since Babbitt's have been devoted to a small minority of the New York City population, and none have reported the speech of the great bulk of the working class and lower middle class population which Babbitt described.

There are three principal sources of information on the speech of New York City for the period 1930 to 1960: the writings of C. K. Thomas, the records of the Linguistic Atlas, and the studies of A. F. Hubbell.

C. K. Thomas [1932, 1942, 1951] has published several articles about New York City speech, based upon his observations of college students who attended Cornell University. His observations are primarily of two types: lists of specific

-4 words which occur with particular sounds, especially in the area of the low back vowels, and discussions of "errors" from the point of view of the speech teacher. In Thomas' extensive records of the usage of college students, we have valuable information on the more formal styles of younger middle class speakers.

The interviews for the Linguistic Atlas of the Eastern United States, as directed by H. Kurath [1939], were carried out in 1941 by Guy S. Lowman. The results of the Atlas interviews in New York City are reported in three Atlas publications which have described the dialect regions of the Eastern United States, as a whole, dealing with lexical items, verb forms, and pronunciation, [Kurath 1949; Atwood 1953; Kurath and McDavid 1961]. A full treatment of the New York City material is given in a dissertation by Y. Frank, [1948] and a separate section is devoted to New York City in T. Wetmore's study [1959] of the low-back and low-central vowels as reported in the Atlas records.

The population sampled by the Atlas was primarily the "old stock" of New York City: those whose parents and grandparents had been born and raised within the city. The field worker selected certain types of informants, according to the instructions quoted at length in Chapter IX. In this typology, Kurath used considerations of age, education, and connection with the local community. In New York City, 25 informants were selected--a comparatively large number, since in most

cities, only three to five informants were used. The sampling methods were extremely informal, and a great deal was necessarily left to the judgment of the field worker.[3]

The policy of selecting informants from families with the longest history of residence in the area was in accordance with the principal focus of the Atlas: to determine the basic outlines of the regional dialects of the Eastern United States, as determined by the original settlement patterns. In New York City, this policy had the unfortunate consequence of limiting the population sampled to a very small minority of the native English speakers.[4] However, it would not have been feasible to modify the over-all procedure of the Atlas because of the special conditions in New York City.

In 1950, A. F. Hubbell published his independent study of The Pronunciation of English in New York City. He investigated the speech of thirty informants, and reviewed phonograph records of nine Atlas informants as well. Hubbell is an extremely meticulous and systematic observer, who reported many details which are not found in Atlas records. Furthermore, he was conscious of the need to examine phonemic contrasts, and was thus able to add some new insights in this area.[5]

The population sampled by Hubbell has the same general limitations as that of the Linguistic Atlas. Most of his informants were fourth or fifth generation New Yorkers, and there is no representation from any of the very large groups that have entered the speech community within the past eighty years--the Jews, the Italians, and the Negroes--and which now make up the bulk of the speech community. Fourteen of the thirty informants were Columbia College students, and the rest of the informants were over 50 years old.

I-6 A recent article by Arthur Bronstein, "Let's Take Another Look at New York City Speech," [1962] reviews some of the materials cited above, with a judicious over-all discussion of the social and dialectal complexity of the region, and adds some new observations based on the speech of Queens College students.

Thus it appears that previous studies of New York City speech, with the exception of Babbitt's brief report, have concentrated upon college students and members of old-stock families, with a small number of speakers from the very lowest ranking groups. Despite such limitations, these reports show fairly good agreement on most of the sounds that are heard in New York City. Some of the studies, especially Hubbell's, give a large body of information on the special status of particular words, which might otherwise have been overlooked by an investigator coming fresh to the scene. In Hubbell's work there is a good description of most of the phonemic contrasts that are found in New York City, and a new study which began without consulting these records might miss many subtle points.

The failures of these studies as a whole lie in two distinct areas. The first is in the treatment of variation.

All of these studies of New York City recognized the existence of social and stylistic variation, although the exploration of such variation was not their principal aim. In the Linguistic Atlas records, the usage of the informants for any particular phoneme is given in a large number of words. Frank's monograph provides charts with ten to twelve forms in

II-7 which each phoneme occurred; the usage of each informant is listed for all of these forms, usually as a choice between two or three principal variants. Wetmore gives detailed information for the low back vowels by listing the number of occurrences of each variant symbol in the Atlas notation for a number of words, and also similar distribution for single words with a breakdown by social types. This data will be utilized at many points in the present study, to give additional time depth to our interpretation of linguistic change.

The value of these materials for our purposes is greatly enhanced by the fact that Kurath foresaw the need for studying social variation, and provided a social classification for the informants. However, there are limitations in the Atlas method which imply the need for caution in making direct comparisons between Atlas records and the results of the present study. The stylistic context of the Atlas interview was essentially that which will be termed "careful conversation," in the discussion of Chapter IV. Although casual conversation undoubtedly must have occurred in the course of the long Atlas interviews, the forms noted down were primarily isolated words or phrases, spoken in stressed position, as answers to direct questions about lexical usage. As far as social variation is concerned, the method of classifying informants was extremely informal, and depended on a mixture of objective criteria [age, education] and subjective impressions of the field worker ["old-fashioned" vs. "modern," "wide social contacts" vs. "restricted social contacts"]. In some cases,

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the language of the informant was used as an additional criterion in the Atlas social typology, in preference to the objective data [Kurath 1939, p. 41].

Hubbell's report on the variability of his informants is quite detailed in a qualitative sense, but he gives less quantitative information than the Atlas records. In a final section of his study, each of the informants' usage is described for a long list of phonological variables, including all of the variables discussed in the present investigation. The fluctuations of the informants are reported in such general terms as "occasionally," "rarely" or "irregularly." Hubbell also reviewed the pronunciation of nine Atlas informants, as preserved on phonograph records, and so provided a valuable basis for comparing his survey with the Atlas.

Hubbell's social classification of informants is based upon their speech: he arranges the 30 subjects in order of decreasing cultivation, based on his own general impressions. On the other hand, he gives sufficient objective data to allow these informants to be re-classified in accordance with the methods used in the present study. The majority of his informants would be classified in the highest ranking social group of the present study, and like the Atlas, he provides comparatively few informants from the bulk of the working class and lower middle class population.

In order to investigate the pronunciation of a great many lexical items by his informants, Hubbell found it necessary to rely primarily upon a written list of isolated sentences. He defends this policy on the grounds that stylistic

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variation is really not very important:

> . . . objections have sometimes been raised to the use of written material. These objections, I feel, are not particularly convincing, for the distortions that appear in reading are pretty obvious and can be taken into account. The most important variation from ordinary conversational speech is in the frequently altered pattern of intonation and stress . . . [p. 14]

On the other hand, Hubbell states that the extemporaneous material recorded can serve as a check on the written material, and notes a tendency for many New Yorkers to pronounce post-vocalic /r/ in reading more than in conversation. His descriptions of the variations of his informants are primarily based on the extemporaneous material, and in only a few cases does he actually provide information on stylistic shift.

The net result of Hubbell's treatment of variability appears in his final assessment of New Yorkers' use of /r/:

> The pronunciation of a very large number of New Yorkers exhibits a pattern in these words that might most accurately be described as the complete absence of any pattern. Such speakers sometimes pronounce /r/ before a consonant or a pause and sometimes omit it, in a thoroughly haphazard fashion. [p. 48]

Hubbell sees a tendency towards the adoption of /r/ as a norm of correctness, but only for those informants who consciously acknowledge that they think /r/ is correct.

> In many cases, this irregularity is a result of the conscious attempt, only partly successful, of originally r-less speakers to pronounce the consonant because they feel that it is more "correct" to do so. But often no conscious effort is involved. The speaker hears both types of pronounciation about him all the time, both seem almost equally natural to him, and it is a matter of pure chance which one comes to his lips. [p. 48]

Thus we find that a very careful observer, who recognizes the existence of extensive variability among his informants, regards New York City use of /r/ [with its many phonological consequences] as a massive case of "free variation." Similar reports are given for many other variables.

The investigations of Bronstein were confined to college students, but they represent a sample of a very large number of students, selected randomly. He makes the following statement on the use of /r/:

> Final and preconsonantal /r/, as in her and charm, is used more widely in the New York City area than seems to be reported in the literature. As noted in the previously cited works by Hubbell and Thomas, complete consistency in the use of this sound is not present. But the impression is growing that perhaps as many educated speakers use it, with reasonable consistency, as do not. Perhaps Thomas' statement that New York City speech is 'characterized by a frequent, but by no means universal, loss of /r/ in the final and preconsonantal positions . . .' does not seem to hold now, unless one understands this to mean that both the loss and the presence of final and preconsonantal /r/ are almost equally frequent.

The number of qualifiers in Bronstein's statements is a tribute to the difficulty of the problem. It is disappointing to learn that these impressions are the only result of three controlled and quantitative procedures, in which the author sampled the speech of thousands of Queens College students.[6]

Bronstein's treatment of other variables shows a similar difficulty in analyzing large-scale variation. On the raised vowel of ask, hand, crab, he says: ". . . there is little doubt that three forms, [ɛ^{ə}, æ^{ɪ}, æ] exist in free variation . . ." [p. 25]

At the outset, Bronstein does recognize the existence of differences in pronunciation among different social groups.

I-11 Yet most of his particular comments present a picture of increasing "free variation," a fluctuation of numerous variants that are to be found in the speech of "the cultivated" as well as "the uncultivated."

This general retreat before the complexity of variation in New York City is matched by the failure of previous studies to show any clear structural pattern for the speech of the city.

The vowel structure of New York City English, as it appears in the Atlas records, was analyzed by Wetmore [1959], Frank [1948] and by Kurath and McDavid [1961]. All of these writers agree in showing a list of sixteen phonemes, classified by distributional criteria as checked and free. Kurath and McDavid [1961, p. 6] show a structural chart for the vowels of New York City, which is identical with that for the Upper and Lower South. A system of ingliding and long phonemes for words such as fear, four, far, does not appear in this analysis. Instead, /r/ is said to appear as an unsyllabic phoneme /ə̯/. [pp. 15, 115]

In their introduction, Kurath and McDavid discuss the advantages and disadvantages of analyzing American English vowels as binary [vowel plus semivowel, /ey, ow/ or as unary /e, o/]. For the purposes of dialect geography, they find the latter preferable. This decision does not entirely resolve the question of the ingliding and long phonemes. Instead of interpreting the unconstricted glide which follows the nucleus of fear, four, as a semivowel, Kurath and McDavid show New York City ear as /iə̯/, care as /ɛə̯/, door as /ɔə̯/, but law

as /lɔ/ [pp. 117, 55-57]. These distinctions support their interpretation that the glide /ə̯/ is not a semi-vowel used generally with all nuclei, but only a representative of the diaphone /r/. The phonetic basis for this interpretation is a series of transcriptions in which a schwa [ə] is written after the vowel of ear, care, Mary, four, door, etc. but only a superscript schwa [ᵊ] or no glide at all after the vowel of dog, frost, law, forty and morning.

The usage of the informants for the present study, and for Hubbell's study, does not support such a distinction. The words lore and law are homonyms, and the same vowel [with or without a glide] appears in door, four, for, frost, off, office, gnaw, nor, etc. Furthermore, the occurrence of a central glide [ə]in Mary as opposed to a shorter glide [ᵊ] in forty does not describe the speech of informants for the present survey or for Hubbell's study.

The Linguistic Atlas analysis of the vowel structure of New York City English differs from that used by Hubbell in another important point. The vowel of ask, bag, bad, dance, etc. is shown in the Atlas records as a raised variant of the /æ/ heard in cap, bat, etc., and distinct from the vowel of where, care, bear, etc. This gives additional support to the Atlas view that the glide that terminates care occurs only where the diaphone /r/ appears in other dialects. However, Hubbell's records show that the ingliding mid-front vowel heard in care, where, is the same for many informants as the vowel in ask, bag, bad, dance, etc., words which do not contain

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historical /r/. Hubbell heard this identity in the recorded speech of a number of Atlas informants as well.

Hubbell's list of phonemic contrasts for New York City is quite a long one. It is, in fact, over-representative, since no one actually uses all the contrasts shown. In the following list, Hubbell's phonemes are given in the notation used in this study.[7]

/i/ bit
/e/ bet
/æ/ bat
/a/ pot
/ʌ/ but
/u/ put

/ih/ beer, beard
/eh/ bare, bared, bad, ask, dance
/æh/ Cary, parents, jazz
/aʰh/ half, ask, bath [imitation of Eastern New England]
/ah/ bar, barred
/oh/ bore, bored, bought
/uh/ boor, moored
/ɜh/ stir, birth, etc. [mostly women]
/ʌh/ stir, her, occurred

/iy/ beat
/ey/ bait
/ay/ bite
/oy/ Hoyt
/ʌy/ Bert, work, shirt

/aw/ about
/ow/ boat
/uw/ boot, loot, moo
/iw/ newt, lute, new

This list of phonemes does tell us a great deal about New York City speech. The binary symbols used for different kinds of phonemes imply a type of structure, but nowhere does Hubbell attempt to work out the larger structures which show how these phonemes are organized in the speech of any one person or any group.

The most characteristic feature of New York City English,

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as seen in this diagram, is the set of ingliding or long vowels symbolized by the series /-h/. In most other regions of the United States, the vowels symbolized in this set do not exist as separate structural elements, but rather as a set of similar sounds which are automatic variants before /r/. One may be tempted to think of this series as merely another way of representing the short vowels followed by a substitute for /r/; Kurath and McDavid did in fact pursue this line of reasoning. Note, however, that many of the words which are found in New York City speech with these ingliding phonemes do not contain the historical /r/ of the spelling form. In the case of the front mid-vowel /eh/, there are large numbers of such words: yeah, bad, bath, badge, ban, bag, etc.--a larger number of words than the group which is found with the short vowel /æ/ as in bat, back, etc. Again, the long vowel /ah/ is used with many words that are not associated with /r/ in any way: god, father, log, pa, ma, calm, bomb, balm, etc.

Does this system indeed describe the idiolects of most New York City residents? The exploratory interviews for the present study, which were conducted in 1962 on the Lower East Side and elsewhere in New York City, provided an opportunity to answer this question.

Results of the exploratory interviews

The first exploratory interviews for the present study were conducted on the Lower East Side of New York City, in a

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tenement area between 14th Street and Houston Street. Tape recordings were made of conversations with young people on the streets, and with older men and women in their homes. In other cases, the interviewer was merely an observer, and collected samples of casual and anonymous speech.

A preliminary interview had been constructed in which a number of regional words characteristic of the city were investigated, and the contextual situation was not very different from that of the Atlas interviews.

The speech of many working class subjects in these exploratory interviews showed a range of variation which was greater than any which had been reported in previous studies. The record of one of the first interviews will serve to illustrate this variability: the subject, Walter M., was a young man born on the Lower East Side, of Ukrainian parents. He was then working as a radio repairman.

The example of one of the ingliding or long vowels will show the difficulty of fitting the system to the data. According to both Hubbell and the Linguistic Atlas, the phoneme /a/ should appear in words such as dock, pot, etc., while the phoneme /ah/ should appear in dark, car, etc. The record of Walter M.'s speech showed that he did use the expected phoneme /ah/ in car, in the phonetic form [kɒ:]. But he also pronounced this word as [kɑɹə], with a short vowel [ɑ] followed by an r-like constriction. The word farmer occurred with the same combination, as [fɑəmə]. A friend of Walter M.'s, of similar age and background, pronounced guard as [gɒ:ᵊd], which would

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be the expected phoneme /ah/. However, farmer again occurred as a short low center vowel plus a constriction, [fɑəmə].

While the writings of Hubbell and Bronstein indicated that /r/ appears frequently in the speech of college-educated New Yorkers, nothing in their statements would lead one to expect such alternations in the speech of working class subsubjects. Yet the situation as it appeared in these preliminary interviews turned out to be a very common one. The next interview, for example, was with a fourteen-year-old boy, of Jewish parents. He used the expected low back vowel without /r/ in car, heart, hard, army. But he also pronounced car with a short vowel [ɑ] and an r-like glide, [kɑə].

The evidence of the speech pattern heard so far might permit a system in which speakers have two different ways of distinguishing dark from dock: either by the use of the low back phoneme /ah/, or by adding /r/ to the short phoneme /a/ as in [dɑək]. However, the subject last mentioned also pronounced the word smart with the low back vowel [ɒ:] followed by /r/, as [smɒ:ət].

Equally mixed results were obtained in interviewing a 34-year-old Negro woman, a high school graduate raised in the Bronx; a 41-year-old Italian man, native to the Lower East Side, with only a grammar school education; a 50-year-old accountant raised in Brooklyn, his wife and 15-year-old son. Altogether, seventy individuals of various ages and backgrounds showed a speech pattern which was not easily described by the list of phonemes given above.

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When the speakers were confronted directly with minimal pairs such as guard vs. god, their responses were no less inconsistant. They were first asked to read the sentence, "In prison, every guard thinks he is a little tin god," and then asked if guard sounded the same as god, or different. In some cases, both words were pronounced [gɒ:d], or [gɑ˕:d], and we can recognize the phoneme /ah/. But in other cases, these words were distinguished: sometimes as god [gɑ˕d], vs. guard [gɒ:d], and sometimes as god [gɑ˕˙d] vs. guard [gɑəd]. Thus the vowel of god is sometimes further forward than guard, and sometimes further back. In a few cases, both words were pronounced [gɒ:əd]. There was no necessary connection between what the speaker heard as the same, and the record, on tape, of what was pronounced the same.

All of the examples of variability given above involve the use of /r/. It might be said, following the line of explanation begun by Bronstein, that there is a free use of /r/ in New York City, with alternate ways of distinguishing words, and that this freedom occasionally causes some mixture of forms--in Hubbell's usage, "contaminations." However, there are many forms of variation in New York speech which have nothing to do with /r/.

In the phonemic pattern given above, both bared and bad occur with the vowel /eh/, and are indistinguishable. There are some speakers who follow this pattern in never using /r/, and always pronounce the word bared as [bɛ:^{ə}d]. Let us consider the results with this type of speaker alone, where the treatment of /r/ is not a factor in the variation.

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In many cases, the expected homonymity of bared and bad does occur, with both as [bɛ:ə̯d]. However, in a majority of the cases, the range of variation of the vowel used in bad is astonishingly large, from [a^{ɪ}] to [i^{ə}], overlapping the probable range of four of Hubbell's phonemic units, and producing complications which go beyond the simpler question of whether bared is pronounced with /er/ or /eh/. Even when the informants read a sentence such as "When he bared his arm, I saw he had a bad cut," we find that bad is not always homonymous with an /r/-less bared. Some speakers contrast bared [bɛ:^{ə}d] with bad [bæ:d], others with bad [bɪ:^{ə}d]. Similar problems affect the phonemic resolution of the back mid ingliding phoneme /oh/. As Hubbell points out, the phoneme /ɜh/ is used by only a few informants, and those who do usually do not use /ʌh/. In the exploratory interviews, no /ɜh/ was found, and very little /ʌh/. The main form for words such as her, were, occur, was the constricted form, similar to that used in r-pronouncing dialects: [wɜ˞], [hɜ˞], [əkɜ˞], etc. The phoneme /a^{ɪ}h/ was used only by a few informants who were reading word lists. A sound that would correspond to a phoneme /æh/ was heard quite often: a long [æ:], but it was impossible to pin down a contrast with /æ/. If /æ/ and /æh/ are distinct phonemes, as opposed to /eh/, the functional load of /æh/ must be very small.

However, one might say that at least the two upper members of the ingliding system, /ih/ and /uh/, follow a fairly simple pattern. Either the following glide is /r/-like, which gives us /ir/ and /ur/, or else it is not, and we would

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have /ih/ and /uh/. However, such simplicity could only stem from imprecise phonetics, because if we transcribe some pronunciations of the word <u>beer</u> very closely, we would write something like [be:ᴬʳ] or [bɪ:ᵀʳ]. This would indicate a long, monophthongal sound somewhat lower than the /i/ of <u>bit</u>, and centralized. Is this really different from the vowel used in <u>bad</u>? Or the pronunciation of <u>bare</u>? Nothing in the traditional literature about New York City would prepare us for a collision between these two sets of words. Furthermore consider the pronunciation used by many informants for <u>shore</u>, as /šoh/--phonetically, [šoᴧᵊ]. Is this really distinct from the high back vowel /uh/ as in <u>sure</u>? At this point, we may justly feel that the entire structure of the ingliding vowels is in doubt:

a. If the word class of <u>bad</u> is not homonymous with that of <u>bared</u>, then the vowel of <u>bared</u> can be reinterpreted as /er/ even in an /r/-less dialect.

b. By the same argument, is there a vowel /ah/ distinct from /a/ plus /r/?

c. Is there a vowel /oh/ distinct from /o/ plus /r/?

d. Is there a vowel /ih/ distinct from /eh/ if /eh/ exists?

e. Is there a vowel /uh/ distinct from /oh/ if /oh/ exists?

f. Is there a vowel /æh/ distinct from /æ/ and /eh/? /a h/ distinct from all of these? /ʌh/ distinct from /ʌ/? /ɜh/ distinct from /ʌh/?

As a result of the exploratory interviews, we can revise Hubbell's list of ingliding phonemes as a column of nine question marks.

I-20 Resolution of the problem

The complexities found in the exploratory interviews may appear to justify the view that New York City speech is chaotic, and that "free variation" is indeed an adequate description. But free variation on a scale such as this is hardly consonant with the concept of a coherent, interrelated system. We cannot accept the notion that New York speech is "a pattern which is the absence of a pattern." All of our previous studies of language indicate that phonological behavior is not amorphous: on the contrary, it is the most highly structured aspect of language. Nor can we accept the view of New York City as a disparate collection of individuals with various backgrounds, borrowing randomly from one another's dialect. There is too great a similarity in the manner in which these variations occur in the speech of most of the informants. It is evident in these interviews that more /r/ occurs in more formal contexts.

The comments of Hubbell, Thomas and Bronstein, all indicate that /r/-pronunciation has the distribution characteristic of a prestige pronunciation. But aside from the fact that college students and radio announcers favor /r/, we know little about the effect of this pattern on the speech of other middle class groups, and nothing about its status among working people. We have no data on the percentage of people who use /r/, nor the consistency with which they use it, nor in what contexts they employ this feature. We also would like to know what effect /r/-pronunciation has on the rest of the phonological system; what other variables have similar dis-

tribution; whether there are variables with radically different distribution. These are questions which cannot be answered by the use of qualitative impressions. They require quantitative treatment, and the next step is to identify the chief variables of New York City speech, and codify them into units which can be measured on a linear scale.

To accomplish this task, it will be necessary to view the various inconsistencies and disagreements in the data in a new light. In the past, considerable progress was made by deliberately ignoring such differences, large or small; the structural analysis of language has advanced by adopting a basic unit which is an abstract language, dialect, or idiolect, exemplified by constant and consistent behavior.[8] Because language does operate by means of consistent and compelling rules, it is possible to obtain this abstract pattern by studying only a few informants. However, to understand the structure of the entire language, and to grasp the dynamics of linguistic change, it is now necessary to turn our full attention to the variable elements in the system. These are the elements that have traditionally been relegated to a kind of linguistic scrap-heap, under the name of "free variants," "social variants," "expressive variants," and similar terms.[9]

In the approach we shall now follow, no such liberties with the data will be permitted. Whenever we hear an inconsistency in someone's speech, we must ask: is this variation consistent? is it part of a larger pattern? This attitude is grounded in the conviction that language is no less determinate than other forms of social behavior. [In fact, we propose to

II-22 demonstrate that it is more highly determined than all other forms.] The amount of randomness in this system is relatively small: behavior that seems at first to be "free" or "random" is discovered on closer examination to be determined by factors accessible to the linguist.[10]

There are of course many kinds of variation that fall outside the scope of linguistic analysis. Lisp, stammer, hiss and whistle seem to be correlated with biological or psychological idiosyncrasies. Variations in tempo, volume or pitch, or such voice qualifiers as rasp or nasality are very often idiosyncratic. In general, linguistic behavior, and only variations which have social significance can be considered relevant to linguistic structure.

From the many examples of socially significant variation to be found in the language of New York City, it will be desirable to select a small number for intensive study. The most useful items are those that are high in frequency, have a certain immunity from conscious suppression,[11] are integral units of larger structures, and may be easily quantified on a linear scale. By all these criteria, phonological variables appear to be the most useful. In the exploratory interviews, there were five such variables which appeared to satisfy these requirements, and showed considerable social significance in the differentiation of speech styles and speakers.

The following conventions of notation will be used in the discussion of the variables, and throughout this study. Variables are indicated by parentheses, as the variable (r),

11-23 or the variable (eh). Particular values of the variables are indicated by a number within the parentheses, as (r-1), or (eh-4). Index scores derived from average values of the variables are indicated by numbers outside the parentheses: (r)-00, or (eh)-25. Brackets will continue to indicate phonetic notation, indicating the speech sounds produced or heard; slashes will continue to indicate phonemic notation, indicating a functional unit of the sound system; underlining indicates a word or morpheme, without regard to its pronunciation. Thus (eh)-20 is an index score for a speaker who consistently uses the (eh-2) value of the variable (eh), as in the form [bɛ:ᵊd] which will be ultimately analyzed as the phonemic sequence /behd/, a pronunciation of both bad and bared.

The five phonological variables

1. (r). The first of these is the presence or absence of final and pre-consonantal /r/ in words such as car or card, bare or bared, beer or beard, bore or bored, Saturday, November, fire or fired, flower or flowered, [but not the /r/ in red, in Cary or merry, or four o'clock].

One class of words which would fall under the definition is excluded and studied under a separate heading: words with the mid-central vowel of her, bird, work or shirt.[12]

The variant forms associated with /r/ were classified by a simple procedure: whenever a definitely constricted [r]-like sound was heard, 1 was recorded; if an unconstricted

glide, or no glide was heard, 0 was recorded. Indeterminate cases were recorded in parentheses, but not used in the final index. This index is then the percentage of 1's in the total number of instances.

2. (eh). The height of the vowel in bad, bag, ask, pass, cash, dance, forms the next variable. The class of words that was utilized for the index is a sub-group of the general class of words that occur with the low front vowel /æ/ in most other dialects of American English. Of this larger class, we will consider only words in which the /eh/ or /æ/ vowel occurs in the last syllable, plus any words derived from these by the addition of a suffix.[13] If we now classify this group by the following consonants, we obtain the sub-groups listed below:

Following Consonant		Examples
a. voiceless stop:	/p, t, k, t͡š/	cap, bat, back, batch
liquid:	/l/	pal
b. voiced fricative:	/v, z/	salve, jazz
velar nasal;	/ŋ/	bang
c. voiced stops:	/b, d, g, d͡ž/	cab, bad, bag, badge
voiceless fricatives:	/f, s, š, θ/	half, pass, cash, bath
other nasals:	/m, n/	ham, dance

In New York City English, sub-group a almost always occurs with a short, checked vowel [æ]. Sub-group b is inconsistent, sometimes occurring with the pattern of sub-group a, sometimes with that of c. Sub-group c is a fairly uniform class of words in which some speakers regularly use [ɛ:ᵊ].

The index for (eh) is based only upon words of sub-group

c. There is one exclusion from this group: the auxiliaries can and had.

The height of the vowel which occurs in words of subgroup c forms a continuous scale. This may be codified into several discrete units with the help of other word classes that are relatively fixed.

Scale for (eh) Index

No.	Approximate phonetic quality	Level with the vowel of
(eh-1)	[ɪ^{ə}]	NYC beer, beard
(eh-2)	[ɛ^{ə}]	NYC bear, bared
(eh-3)	[æ^{ʌ}]	
(eh-4)	[æ:]	NYC bat, batch
(eh-5)	[a:]	Eastern New England pass, aunt
(eh-6)	[ɑ:]	NYC dock, doll

The reference terms given at the right do not necessarily indicate that (eh-2) in the speech of a given individual will necessarily fall into the same phonemic classification as his own pronunciation of bear and bared. These are references to the most common type of r-less pronunciation heard in the city, and are included for the use of speakers who are familiar with these forms. The scale for the (eh) index is a phonetic scale, in terms of impressionistic phonetics.

Although this is a six-point scale, only four of the points are actually along a scale of height in traditional terms. The only point on the scale which is not identified by the phonetic quality of some other word group is (eh-3): this is an intermediate sound which is usually classed as a

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raised allophone of (eh-4), and it is the sound which is most commonly heard in the speech of educated speakers from northern regions outside of New York City.

The index score for (eh) is derived by multiplying by ten the average of the values assigned to all of the individual occurrences of the vowel in words of sub-group c.[14] It is irrelevant for the purposes of this index whether the vowel in question would structurally be assigned to /æ/ or /eh/ or even /ih/: the index measures the phonetic position of the initial portion of the vowel in this word group. Thus (eh)-25 would be the index rating for a person who pronounced half of the words in this group with (eh-3) and half with (eh-2). A person who always used a vowel level with the vowel of bat would be assigned (eh)-40.

3. (oh). The third variable is the mid-back rounded vowel heard in caught, talk, awed, dog, off, lost, all, sometimes known as "long open o" and symbolized [ɔ:]. The word class which is measured by the index may be defined as those words which are reported with the phoneme /oh/ in the LA data for New York City.[15]

A six-point linear scale parallel to that for (eh) is used to measure the height of this vowel: the great number of diacritics needed in the phonetic quality is matched by the miscellaneous collection of reference points. The difficulty of the phonetic description of this vowel is so great that none of these methods are satisfactory, and the following discussion may be of some help.

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Scale for (oh) Index

No.	Approximate Phonetic quality	Level with the vowel of
(oh-1)	[ʊ˖] [o˖]	NYC sure
(oh-2)	[o˖]	
(oh-3)	[o˖]	General American for, nor
(oh-4)	[o:]	IPA cardinal /o/
(oh-5)	[ɒ̜] (rounded)	Eastern New England hot, dog
(oh-6)	[ɑ̈]	NYC dock, doll[16]

(oh-4) is the vowel of height level with Daniel Jones' fixed position for cardinal [o]. It is heard frequently in the speech of upstate New York residents, and in many other parts of the country, but never with enough consistency for the speech of a particular region to serve as a firm reference point. (oh-3) is somewhat higher, and may be identified fairly accurately as the sound preceding [r] in for, or, nor in almost any region of the United States where [r] is pronounced in those words.

(oh-2) is a sound which is not heard in many other parts of the United States. This vowel is higher than (oh-3), more forward, and more rounded. The centering glide which follows is often more marked than with (oh-3), but a glide does not necessarily follow. (oh-1) is even more unusual; it is a sound nearly unique in American dialects, and this sound is raised and centered beyond (oh-2) level with most pronunciations of sure and is rounded with what appears to be con-

siderable tension. The rounding is quite different from that observed in British tense [ɔ:]: it is actually a pursing of the lips, in women; in men, a similar but distinct phonetic quality is imparted by what seems to be a hollowing of the tongue.

4,5. (th) and (dh). These two variables are the initial consonants of thing and then; they are well known as variables throughout most of the United States. These consonants do not of course show any close relation to the vowel system; they are incorporated in this study as a pair of correlated variables which are not involved in any of the processes of structural change which affect the first three variables.

		(th)	(dh)
1	an interdental fricative[17]	[θ]	[ð]
2	an affricate	[tθ]	[dð]
3	a lenis stop	[t]	[d]

The prestige form in this scale is the fricative, and the stop with its [t]-like or [d]-like effect is everywhere considered to have less prestige. This stop consonant may be formed in a number of different ways, but its essential quality is that no turbulent, fricative or scraping sound is heard as it is articulated. The affricate is a rapid succession of the two forms--or more precisely, it is heard as the fricative with a sudden onset, instead of a gradual beginning.

The use of these two variables will enable us to standardize any method of measurement without reference to linguistic change or the structural consequences of the other

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variables. Moreover, the high frequency of these variables, especially (dh), will enable us to obtain accurate measurements for short stretches of speech. The fact that these variables are not peculiar to New York City will enable us to use them in the study of the informants who were raised outside the city. The difference in the behavior of New Yorkers and out-of-towners in respect to (r), (eh), and (oh) can be calibrated against the differences in the handling of (th) and (dh).

The index for (th) and (dh) is derived by obtaining the average value of all occurrences of (th) and (dh), subtracting 1, and multiplying by 100. This yields a value of (th)-00 and (dh)-00 for those who use only the fricatives, and a value of (th)-200 and (dh)-200 for someone who might use only stops.

The problem of stylistic variation

In the exploratory interviews, it was found that the five items just described vary to a significant degree in the speech of most New Yorkers. Further explorations of New York City speech revealed more of the pattern behind this variation. A professor of sociology, born and raised in New York City, began a lecture with an (r) index of 50 to 60; as he proceeded, and warmed to his subject, the index dropped precipitately, as low as (r)-05; then as he began to make his final points, the (r) index began to rise again, though it never quite

reached its initial value. A Negro woman, living on welfare in a bare tenement apartment, used a carefully articulated style of speech with (r)-19; now and then she interrupted herself to scold her children, using a radically different style of speech with (r)-00. An electrician used (r)-00 in all of his conversation, but faced with the isolated word guard, pronounced it as [gɑəd], and was surprised to hear that he usually said [gɑ:d].

Behind cases like these, and many others, one can see the outlines of a pattern: that more (r-1) is used in more formal situations, and less (r-1) is used in less formal contexts. The problem is to reduce this vague impression to an exact description. We would like to delineate the structure of this variation by quantitative means, so that the amount of shift could be measured in the speech of any given individual--not merely at two opposing extremes, but at a whole series of points to see if the direction of shift is constant. With such a measure at hand, the performances of any two individuals, or groups can be compared and the development of this dynamic process can be traced through several generations of New York speakers. When similar techniques have been developed for the other variables as well, the problem of stylistic variation will be considered solved.

The problem of social variation

The comments found in previous studies have already indicated that the pronunciation of (r-1) is a common characteristic of young college students. The predominance of (r-1) in

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mass communications is a pattern that can be quickly grasped from a few hours of listening to radio or television. Further progress in analyzing the situation is difficult in the presence of the large-scale variation produced by changing contexts. Until we have a means of holding an individual's speech at a constant and comparable point along the axis of stylistic variation, we cannot compare his use of (r) with anyone else's. Yet a number of examples from exploratory interviews suggested that the pattern of social variation may be just as highly determined as the stylistic pattern.

The problem of social variation is to reduce our general impression of the social significance of (r) to an exact statement of social distribution [and eventually, social evaluation]. We will want to compare groups and individuals through the exact use of the index for (r), and the other indexes as well.

Some of the most convincing illustrations of the social significance of a variable occur when the linguist is simply an anonymous observer. In such situations we can observe linguistic behavior without the biasing effect of conscious attention to speech, which is characteristic of the linguistic interview. The formal procedures of the interview are always open to the suspicion that the linguist is creating the language that he is studying. Yet the anonymous and casual speech exchange is usually the most uncontrolled type of observation: we cannot hope to learn very much from such random jottings unless the variation along the social axis, and the stylistic axis, is tightly controlled.

II-32 A method of using casual and anonymous observations in a systematic manner, with such controls, was developed in the course of this exploration of New York City speech. It was decided to use this method to test a general hypothesis about the social variation of (r): that given any groups of New York speakers who are ranked in a scale of social stratification, these groups will be ranked in the same order by their differential use of (r). To carry out such a program before continuing the development of the formal interview on the Lower East Side, would increase our confidence in the general application of the methods and indexes described in this chapter. The following chapter reports the confirmation of the hypothesis in a study of New York City department stores.

NOTES TO CHAPTER II

[1]One of the questions in the survey of the Lower East Side dealt with these experiences. The data is summarized at the conclusion of Chapter XI.

[2]The citations of previous studies of New York City will be identified in the text by author's name and date of publication, to avoid the multiplication of footnotes. Complete data is given in the Bibliography.

[3]At the time that New York was surveyed, Lowman was the only field worker. The interview took several days, and the availability of the informants was necessarily an important consideration.

[4]Glazer and Moynihan estimate that not more than one-twentieth of the present population of New York City is "old stock"; in 1855, the Irish-born and German-born and their children made up a majority of the city's population. N. Glazer and D. Moynihan, Beyond the Melting Pot (Cambridge: M.I.T. Press, 1963).

[5]The phonemic identity of the raised vowel in bad, ask, dance with that of where, bear was not recorded in the Atlas transcript, but was noted by Hubbell in reviewing the phonograph records of nine informants. Hubbell also noted some marginal contrasts such as chalk-chocolate-chock and curd-cud-occurred.

[6]Bronstein examined the records of approximately 200 entering freshmen at Queens College, randomly selected from each entering class of between 800 and 1,000 students for the five years between 1947 and 1952. He then studied the records of sophomore and junior students who had been interviewed for the teacher-training program, for 1952 through 1955. Finally, he himself has kept notes on over 500 students from 1947 to 1961 in the Department of Speech freshman course.

[7]Hubbell uses /ii/ where the present study uses /iy/; Hubbell's /iə/ corresponds to the present /ih/, etc. These substitutions are purely for typographic convenience, and the notation /ih/ implies no theory about the identification of the consonant /h/ with the latter part of an ingliding or long phoneme.

[8]"Although differences of style can be described with the tools of descriptive linguistics, their exact analysis involves so much detailed study that they are generally disre-

II-34 garded. The procedures presented in the following chapters will not take note of style differences, but will assume that all styles within a dialect may be roughly described by a single structural system." Zellig Harris, Structural Linguistics, (Chicago: University of Chicago Press, 1951), p. 11. Though many similar quotations might be assembled, few have stated the matter as precisely as Harris.

[9]As employed by Harris to establish the minimal functioning units of a language, this labelling is a legitimate procedure. See Harris, op. cit., p. 29. As employed by Bronstein to summarize the distribution of variants, this cover terminology begs the question.

[10]The need to study linguistic diversity was stated by Martinet, in his preface to Weinreich's Languages in Contact (New York: Linguistic Circle of New York, 1953), p. vii. ". . . but it remains to be emphasized that linguistic diversity begins next door, nay, at home and within one and the same man. It is not enough to point out that each individual is a battlefield for conflicting linguistic types and habits, and at the same time, a permanent source of linguistic interference. What we heedlessly and somewhat rashly call 'a language' is the aggregate of millions of such microcosms. . ."

[11]Immunity from conscious distortion is not required, since both conscious and unconscious distortion of a native speech pattern appear to have about the same results in response to a shift of context. (See Chapter IV). But if an item can be completely suppressed by most informants (such as the use of ain't, or taboo words) it will give us a much more limited body of data for analysis.

[12]Data on the vowel which occurs in her, were, occur, etc., were tabulated separately, and are presented in Chapter X. Data on the vowel of bird, work, shirt, etc., may be found in Chapter IX.

In the original transcriptions of data for (r), separate tabulations were maintained for five separate environments, according to the preceding vowel, and weak constriction was distinguished from more prominent or strong constriction. However, these sub-classifications showed parallel distribution and the simplified form of the index as presented here preserves all of the patterns of structural variation seen in the more detailed data.

[13]Thus dragging, wagging, clammer would fall into this class, but dragon, wagon and clamor would not.

[14]In the construction of the interview and the transcription of the data, information on all of the categories of /æ/ and (eh) words was preserved, and information on the occurrence of polysyllabic words ending in weak syllables as well. In the case of (eh-6), this vowel was included in the count for all relevant words except aunt. Since many New Yorkers place aunt in the /a/ phoneme as a part of their native pattern, such a pronunciation has no relation to the pattern of raising and lowering which is characteristic of the scale.

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[15]In terms of American dialects spoken in Western Pennsylvania, northeastern New England, or the western states outside of San Francisco and Los Angeles, it is difficult to distinguish this class of words from the class of hot, hock, hod, doll. In the most common convention adopted by dictionaries, this class of caught, talk, awed words is identified by the symbol ô as the vowel.

[16]The same restriction which was imposed on the inclusion of aunt as an (eh-6) word is adopted here for chocolate.

[17]For many speakers, the position of the tongue might more accurately be described as pre-dental, that is, pressing lightly against the aperture of the teeth from behind. For others, the tongue protrudes between the teeth. The important point is the fricative quality: the absence of sudden transitions.

CHAPTER III

THE SOCIAL STRATIFICATION OF (r) IN NEW YORK CITY DEPARTMENT STORES

So far in the investigation of the speech of New York City, we have been taking a very close view of the linguistic behavior of individuals. As a preliminary to extending this method as a whole to large numbers of speakers, it will be useful to consider a survey of the speech of New York City department store employees, conducted in November of 1962. This survey was designed to test two ideas that arose from the exploratory interviews: first, that the variable (r) is a social differentiator in all levels of New York City speech, and second, that casual and anonymous speech events could be used as the basis for a systematic study of language. The study as carried out was a self-contained unit, and will be reported as a whole in this chapter.

We can hardly consider the social distribution of language in New York City without encountering the pattern of social stratification which pervades the life of the city. We will have ample opportunity to deal with this concept in Chapter VII; at the moment, we may refer to the definition given by Bernard Barber:[1] social stratification is the product of social differentiation and social evaluation. The

use of this term does not imply any specific type of class or caste, but simply that the normal workings of society have produced systematic differences between certain institutions or people, and that these differentiated forms have been ranked in status or prestige by general agreement.

We begin with the general hypothesis suggested at the end of the last chapter: <u>if any two sub-groups of New York City speakers are ranked in a scale of social stratification, then they will be ranked in the same order by their differential use of (r)</u>.

It would be easy to test this hypothesis by comparing occupational groups, which are among the most important indexes of social stratification. We could, for example, take a group of lawyers, a group of file clerks, and a group of janitors. But this would hardly go beyond the indications of the exploratory interviews, and such an extreme example of differentiation would not provide a very exacting test of the hypothesis. We would like to show that the hypothesis is so general, and the differential use of (r) pervades New York City so thoroughly, that fine social differences will be reflected in the index as well as gross ones.

It therefore seemed best to construct a very severe test by finding a subtle case of stratification within a single occupational group: in this case, the sales people of large department stores in Manhattan. If we select three large department stores, from the top, middle and bottom of the price and fashion scale, we can expect that the customers

will be socially stratified. Would we expect the sales people to show a comparable stratification? Such a position would depend upon two correlations: between the status ranking of the stores and the ranking of parallel jobs in the three stores; and between the jobs and the behavior of the persons who hold those jobs. These are not unreasonable assumptions. C. Wright Mills points out, in White Collar, that salesgirls in large department stores tend to borrow prestige from their customers, or at least make an effort in that direction.[2] In later chapters, we will show that a person's own occupation is more closely correlated with his linguistic behavior--for those working actively--than any other single social characteristic. In this chapter, we will give some evidence that the stores are objectively differentiated in a fixed order, and that jobs in these stores are evaluated by employees in that order. Since the product of social differentiation and evaluation, no matter how minor, is social stratification of the employees in the three stores, the hypothesis will predict the following result:

> salespeople in the highest ranked store will have the highest values of (r); those in the middle ranked store will have intermediate values of (r); and those in the lowest ranked store will show the lowest values.

If this result holds true, the hypothesis will have received confirmation in proportion to the severity of the test.

The three stores which were selected are Saks Fifth

Avenue, Macy's, and S. Klein. The differential ranking of these stores may be illustrated in many ways. Their locations are one important point:

Highest ranking: Saks Fifth Avenue
at 50th St. and 5th Ave., near the center of the high fashion shopping district, along with other high prestige stores such as Bonwit Teller, Henri Bendel, Lord and Taylor

Middle ranking: Macy's
Herald Square, 34th St. and Sixth Ave., near the garment district, along with Gimbels and Saks-34th St., other middle range stores in price and prestige.

Lowest ranking: S. Klein
Union Square, 14th St. and Broadway, not far from the Lower East Side; the other large store in the area, Ohrbachs, recently raised its price and advertising level and moved uptown.

The advertising and price policies of the stores are very clearly stratified. Perhaps no other element of class behavior is so sharply differentiated in New York City as that of the newspaper which people read; many surveys have shown that the Daily News is the paper read first and foremost by working class people, while the New York Times draws its readership from the middle class.[3] These two newspapers were examined for the advertising copy in October 24th through 27th, 1962: Saks and Macy's advertised in the New York Times, where Klein's was represented only by a very small item; in the News, however, Saks does not appear at all, while both Macy's and Klein's are heavy advertisers.

No. of pages of advertising
October 24-27, 1962

	NY Times	Daily News
Saks	2	0
Macy's	6	15
S. Klein	1/4	10

We may also consider the prices of the goods advertised during those four days. Since Saks usually does not list prices, we can only compare prices for all three stores on one item: women's coats. Saks: $90.00, Macy's: $79.95, Klein's: $23.00. On four items, we can compare Klein's and Macy's:

	Macy's	S. Klein
dresses	$ 14.95	$ 5.00
girls' coats	16.99	12.00
stockings	.89	.45
men's suits	49.95-64.95	26.00-66.00

The emphasis on prices is also different. Saks either does not mention prices, or buries the figure in small type at the foot of the page. Macy's features the prices in large type, but often adds the slogan, "You get more than low prices." Klein's, on the other hand, is often content to let the prices speak for themselves. The form of the prices is also different: Saks gives prices in round figures, such as $120; Macy's always shows a few cents off the dollar: $49.95; Klein's usually prices its goods in round numbers, and adds the retail price which is always much higher, and shown in Macy's style: $23.00, marked down from $49.95."

The physical plant of the stores also serves to differentiate them. Saks is the most spacious, especially on the upper floors, with the least amount of goods displayed. Many of the floors are carpeted, and on some of them, a receptionist is stationed to greet the customers. Klein's, at the other extreme, is a maze of annexes, sloping concrete floors, low ceilings; it has the maximum amount of goods displayed at the least possible expense.

The principal stratifying effect upon the employees is the prestige of the store, and the working conditions. Wages do not stratify the employees in the same order. On the contrary, there is every indication that high prestige stores such as Saks pay lower wages than Macy's.

Saks is a non-union store, and the general wage structure is not a matter of public record. However, conversations with a number of men and women who have worked in New York department stores, including Saks and Macy's, show general agreement on the direction of the wage differential.[4] Some of the incidents reflect a willingness of sales people to accept much lower wages from the store with greater prestige. The executives of the prestige stores pay a great deal of attention to employee relations, and take many unusual measures to ensure that the sales people feel that they share in the general prestige of the store.[5] One of the Lower East Side informants who worked at Saks was chiefly impressed with the fact that she could buy Saks clothes at a 25% discount. A similar concession from a lower prestige store would have been of little interest to her.

:II-7

From the point of view of Macy's employees, a job in Klein's is well below the horizon. Working conditions and wages are generally considered to be less, and the prestige of Klein's is very low indeed. As we will see, the racial and ethnic composition of the store employees reflect these differences quite accurately [see Table 3 below].

A socio-economic index which ranked New Yorkers on occupation would show the employees of the three stores at the same level; an income scale would probably find Macy's employees somewhat higher than the others; education is the only objective scale which might differentiate the groups in the same order as the prestige of the stores, though there is no evidence on this point. However, the working conditions of sales jobs in the three stores stratify them in the order: Saks, Macy's, Klein's; the prestige of the stores leads to a social evaluation of these jobs in the same order. Thus the two aspects of social stratification--differentiation and evaluation--are to be seen in the relations of the three stores and their employees.

The normal approach to a survey of department store employees requires that one enumerate the sales people of each store, draw random samples in each store, make appointments to speak with each employee at home, interview the respondents, then segregate the native New Yorkers, analyze and re-sample the non-respondents, and so on. This is an expensive and time-consuming procedure, but for most purposes there is no short cut which will give accurate and

reliable results. In this case, a simpler method which relies upon the extreme generality of the linguistic behavior of the subjects, was used to gather a very limited type of data. This method is dependent upon the systematic sampling of casual and anonymous speech events. Applied in a poorly defined environment, such a method is open to many biases and it would be difficult to say what population had been studied. In this case, our population is well defined as the sales people [or more generally, any employee whose speech might be heard by a customer] in three specific stores at a specific time. The end result will be a view of the role that speech would play in the over-all social imprint of the employees upon the customer. What is surprising about the method, is not only the simplicity and economy of the approach, but the high degree of consistency and regularity in the results, which will allow us to test the original hypothesis in a number of subtle ways.

The method

The application of the study of casual and anonymous speech events to the department store situation was relatively simple. The interviewer approached the informant in the role of a customer asking for directions to a particular department. The department was one which was located on the fourth floor. When the interviewer asked, "Excuse me, where are the women's shoes?" the answer would normally be, "Fourth floor."

The interviewer then leaned forward and said, "Excuse me?" He would usually then obtain another utterance, "Fourth floor," spoken in careful style under emphatic stress.[6]

The interviewer would then move along the aisle of the store to a point immediately beyond the informant's view, and make a written note of the data. The following independent variables were included:

- the store
- floor within the store[7]
- sex
- age [estimated in units of five years]
- occupation [floorwalker, sales, cashier, stockboy]
- race
- foreign or regional accent, if any

The dependent variable is the use of (r) in four occurrences:

(casual)	(emphatic)
fourth floor	fourth floor

Thus we have preconsonantal and final position, in both casual and emphatic styles of speech. In addition, all other uses of (r) by the informant were noted, from remarks overheard or contained in the interview. For each plainly constricted value of the variable--(r-1) in the notation of Chapter II--(r-1) was entered; for unconstricted schwa, lengthened vowel, or no representation, (r-0) was entered. Doubtful cases or partial constriction were symbolized "d" and were not used in the final tabulation.

Also noted were instances of affricates or stops used in the word fourth for the final consonant, and any other ex-

amples of (th-2), (th-3), (dh-2), or (dh-3), used by the speaker.

This method of interviewing was applied in each aisle on the floor as many times as possible before the spacing of the informants became so close that it was noticed that the same question was asked before. Each floor of the store was investigated in the same way. On the fourth floor, the form of the question was necessarily different:

"Excuse me, what floor is this?"

Following this method, 68 interviews were obtained in Saks, 125 in Macy's, and 71 in Klein's. Total interviewing time for the 264 subjects was approximately six and one-half hours.

At this point, we might consider the nature of these 264 interviews in more general terms. They were speech events which had entirely different social significance from the point of view of the two participants. As far as the informant was concerned, the exchange was a normal salesman-customer interaction, almost below the level of conscious attention, in which relations of the speakers were so casual and anonymous that they may hardly have been said to have met. This tenuous relationship was the minimum intrusion upon the behavior of the subject; language and the use of language never appeared at all.

From the point of view of the interviewer, the exchange was a systematic elicitation of the exact forms required, in the desired context, the desired order, and with the desired contrast of style.

Over-all stratification of (r)

The results of the study showed clear and consistent stratification of (r) in the three stores. In Figure 1, the use of (r) by employees of Saks, Macy's and Klein's is compared by means of a bar graph. Since the data for most informants consist of only four items, we will not use a continuous numerical index for (r), but rather divide all informants into three categories[8]

all (r-1): those whose records show only (r-1) and no (r-0)

some (r-1): those whose records show at least one (r-1) and one (r-0)

no (r-1): those whose records show only (r-0)

The shaded area of Figure 1 shows the percentage of all (r-1); the unshaded area of the bar shows the percentage of some (r-1). The remainder, not shown on the graph, is the percentage of no (r-1). The figure underneath each bar shows the total number of cases.

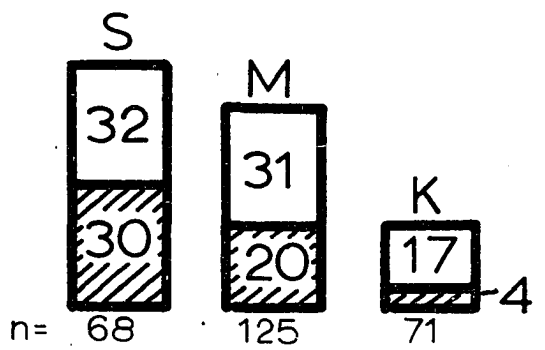

FIGURE 1

Over-all stratification of (r) by store [S=Saks, M=Macy's, K=Klein's. Shaded area=% all (r-1); unshaded area=% some (r-1).]

Thus we see that a total of 62% of Saks employees used all or some (r-1), 51% of Macy's, and 20% of Klein's. The stratification is even sharper for the percentages of all (r-1). As the hypothesis predicted, the groups are ranked by their differential use of (r-1) in the same order as their stratification by extra-linguistic factors.

Next, we may wish to examine the distribution of (r) in each of the four standard positions. Figure 2 shows this type of display, where once again, the stores are differentiated in the same order, and for each position. There is a considerable difference between Macy's and Klein's at each position, but the difference between Macy's and Saks varies.

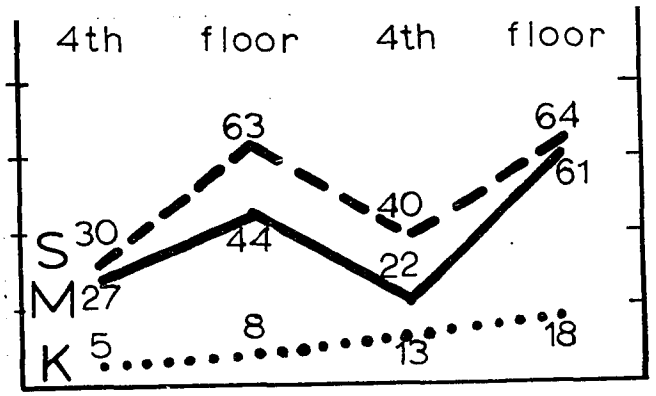

FIGURE 2

Percentage of all (r-1) by store for four positions [S=Saks, M=Macy's, K=Klein's]

In emphatic pronunciation of the final (r), Macy's employees come very close to the mark set by Saks. It would seem that r-pronunciation is the norm at which a majority of Macy employees aim, yet not the one they use most often. In Saks, we see a shift between casual and emphatic pronunciation, but

it is much less marked. In other words, Saks employees have more security in a linguistic sense.

The fact that the figures for (r-1) at Klein's are low, should not obscure the fact that Klein's employees also participate in the same pattern of stylistic variation of (r) as the other stores. The percentage of r-pronunciation rises at Klein's from 5 to 18 per cent as the context becomes more emphatic: a much greater rise in percentage than in the other stores, and a more regular increase as well. It will be important to bear in mind that this attitude--that (r-1) is the most appropriate pronunciation for emphatic speech--is shared by at least some speakers in all three stores.

TABLE 1

DETAILED DISTRIBUTION OF (r) BY STORE AND WORD POSITION

	Saks				Macy's				Klein's			
	Casual		Emphatic		Casual		Emphatic		Casual		Emphatic	
	4th	floor	4th	floor	4th	floor	4th	floor	4th	floor	4th	floor
(r-1)	17	31	16	21	33	48	13	31	3	5	6	7
(r-0)	39	18	24	12	81	62	48	20	63	59	40	33
"d"	4	5	4	4	0	3	1	0	1	1	3	3
No data[9]	8	14	24	31	11	12	63	74	4	6	22	28
	68	68	68	68	125	125	125	125	71	71	71	71

Table 1 shows the data in detail, with the number of instances obtained for each of the four positions of (r), for each store. The symbol "d" indicates indeterminate, partially constricted forms not used in the percentages of all (r-1), some (r-1), or no (r-1). It may be noted that the number of

occurrences in the second pronunciation of four is considerably reduced, primarily as a result of some speaker's tendency to answer a second time, "Fourth."

Since the numbers in the fourth position are somewhat smaller than the second, it might be suspected that those who use [r] in Saks and Macy's tend to give fuller responses, thus giving rise to a spurious impression of increase in (r) values in those positions. We can check this point by comparing only those who gave a complete response. Their responses can be symbolized by a four digit number, representing the pronunciation in each of the four positions respectively.

TABLE 2

DISTRIBUTION OF (r) FOR COMPLETE RESPONSES

		Percentage of total responses in		
		Saks	Macy's	S. Klein
all (r-l)	1 1 1 1	24	22	6
some (r-l)	0 1 1 1 0 0 1 1 0 1 0 1 etc.	46	37	12
no (r-l)	0 0 0 0	30	41	82
		100	100	100
	[N:	33	48	34]

Thus we see that the pattern of differential ranking in the use of (r) is preserved in this sub-group of complete responses, and omission of the final "floor" by some respondents was not a factor in this pattern.

The effect of other independent variables

It is possible that other factors, besides the stratification of the stores, may explain the regular pattern of r-pronunciation seen above, or that this effect may be the contribution of a particular group in the population, rather than the behavior of the sales people as a whole. The other independent variables recorded in the procedure will enable us to check such possibilities.

Race. There are many more Negro employees in the Klein's sample than in Macy's, and more in Macy's than in Saks. Table 3 shows the percentages of Negro informants and their responses.

TABLE 3

DISTRIBUTION OF (r) FOR NEGRO EMPLOYEES

	Percentage of responses in		
	Saks	Macy's	S. Klein
all (r-1)	50	12	0
some (r-1)	0	35	6
no (r-1)	50	53	94
	100	100	100
[N:	2	17	18]
[% of Negro informants:]	03	14	25

When we compare these figures with those of Figure 1, for the entire population, it is evident that the presence of many Negro informants will contribute to a lower use of (r-1).

The Negro subjects at Macy's used less (r-1) than the white informants, though only to a slight extent; the Negro subjects at Klein's were considerably more biased in the r-less direction.

The higher percentage of Negro sales people in the lower ranking stores is consistent with the general pattern of social stratification, since in general, Negro workers have been assigned less desirable jobs. Therefore the contribution of Negro speakers to the over-all pattern is consistent with the hypothesis.

There are other differences in the populations of the stores. The types of occupations among the employees who are accessible to customers are quite different. In Macy's, the employees who were interviewed could be identified as floor-walkers [by red and white carnations], sales people, cashiers, stockboys, and elevator operators. In Saks, the cashiers are not accessible to the customer, working behind the sales counters, and stockboys are not seen. The working operation of the store goes on behind the scenes, and does not intrude upon the customer's notice. On the other hand, at Klein's, all of the employees seem to be operating on the same level: it is difficult to tell the difference between sales people, managers, and stockboys.

Here again, the extra-linguistic stratification of the stores is re-inforced by objective observations in the course of the interview. We can question if these differences are not responsible for at least a part of the stratification of

(r). For the strongest possible result, it would be desirable to show that the stratification of (r) is a property of the most homogeneous sub-group in the three stores: native New York, white, sales women. Setting aside the male employees, all occupations besides selling itself, the Negro and Puerto Rican employees, and all those with a foreign accent,[10] there are still a total of 141 informants to study.

Figure 3 shows the percentages of (r-1) used by the native white sales women of the three stores, with the same type of graph as in Figure 1. The stratification is essentially the same in direction and outline, though somewhat smaller in magnitude. The greatly reduced Klein's sample still shows by far the lowest use of (r-1), and Saks is ahead of Macy's in this respect.

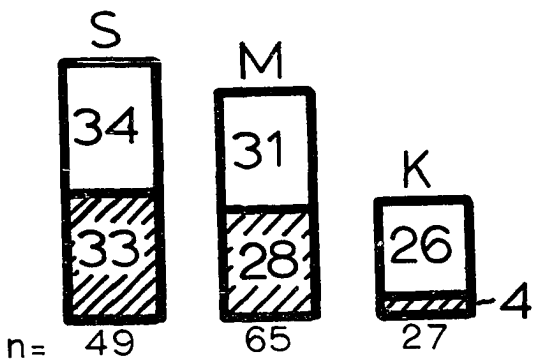

FIGURE 3

Stratification of (r) by store for native New York white sales women [S=Saks, M=Macy's, K=Klein's. Shaded area=% all (r-1); unshaded area=% some (r-1).]

We can therefore conclude that the stratification of (r) is a process which affects every section of the sample.

II-18

We can now turn the heterogeneous nature of the Macy's sample to advantage. Figure 4 shows the stratification of (r) according to occupational groups in Macy's: as the discussion of the initial hypothesis indicated, this is much sharper than the stratification of the employees in general.

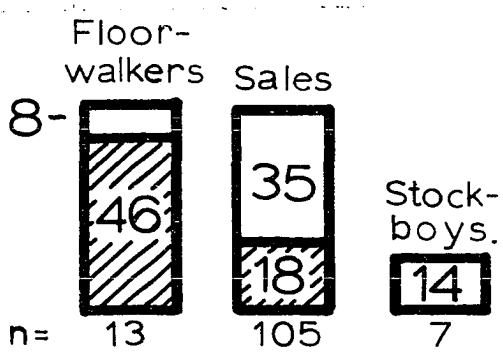

FIGURE 4

Stratification of (r) by occupational groups in Macy's [S=Saks, M=Macy's, K=Klein's. Shaded area=% all (r-1); unshaded area=% some (r-1).]

The floorwalkers and the sales people are almost the same in the total percentage of those who use all or some (r-1), but the floorwalkers have a much higher percentage of those who consistently use (r-1).

Another interesting comparison may be made at Saks. This store shows a great discrepancy between the ground floor and the upper floors. The ground floor of Saks looks very much like Macy's: a great many crowded counters, salesgirls leaning over the counters, almost elbow to elbow, and a great deal of merchandise displayed. But the upper floors of Saks are far more spacious; there are long vistas of empty carpeting, and on the floors devoted to high fashion, there are

models who display the individual garments to the customers. Receptionists are stationed at strategic points to screen out the casual spectators from the serious buyers.

It would seem logical then, to compare the ground floor of Saks with the upper floor. By the hypothesis, we should find a differential use of (r-1). Table 4 shows that this is the case.

TABLE 4

DISTRIBUTION OF (r) BY FLOOR IN SAKS

	Ground floor	Upper floors
% all (r-1)	23	34
% some (r-1)	23	40
% no (r-1)	54	26
	100	100
	[N: 30	38]

In the course of the interview, information on another variable was also collected: the (th) variable, particularly as it occurred in the word fourth. We have already seen this variable as a social differentiator in the individual cases of the previous chapter. The percentage of speakers who used stops in this position was fully in accord with the other measures of social stratification which we have seen:

Saks	00%
Macy's	04%
Klein's	15%

Thus the hypothesis has received a number of semi-independent confirmations. Considering the economy with which the information was obtained, the survey appears to yield rich results. It is true that we do not know a great deal about the informants which we would like to know: their birthplace, language history, education, participation in New York culture, and so on. Nevertheless, the regularities of the underlying pattern are strong enough to overcome this lack of precision in the selection and identification of informants.

Differentiation by age of the informants

The age of the informants was estimated within five-year intervals, and these figures cannot be considered reliable for any but the simplest kind of comparison. However, it should be possible to break down the age groups into three units, and detect any over-all direction of change.

At various points in this discussion, it has been indicated that (r-1) is one of the chief characteristics of a new prestige pattern which is being superimposed upon the native New York City pattern. We would therefore expect to see a rise in r-pronunciation among the younger sales people. However, the over-all distribution by age shows no evidence of change.

TABLE 5

DISTRIBUTION OF (r) BY ESTIMATED AGE

	Age groups		
	15-30	35-50	55-70
% all (r-1)	24	20	20
% some (r-1)	21	28	22
% no (r-1)	55	52	58

This lack of direction is surprising. For further discussion and clarification, the material to be presented in Chapter IX will be required. It may be illuminating, however, to examine the breakdown for each store, as shown in Figure 5. Here the expected increase in (r-1) pronunciation is seen in Saks. However, Macy's shows a contrary direction of change, and no particular direction can be seen for Klein's.

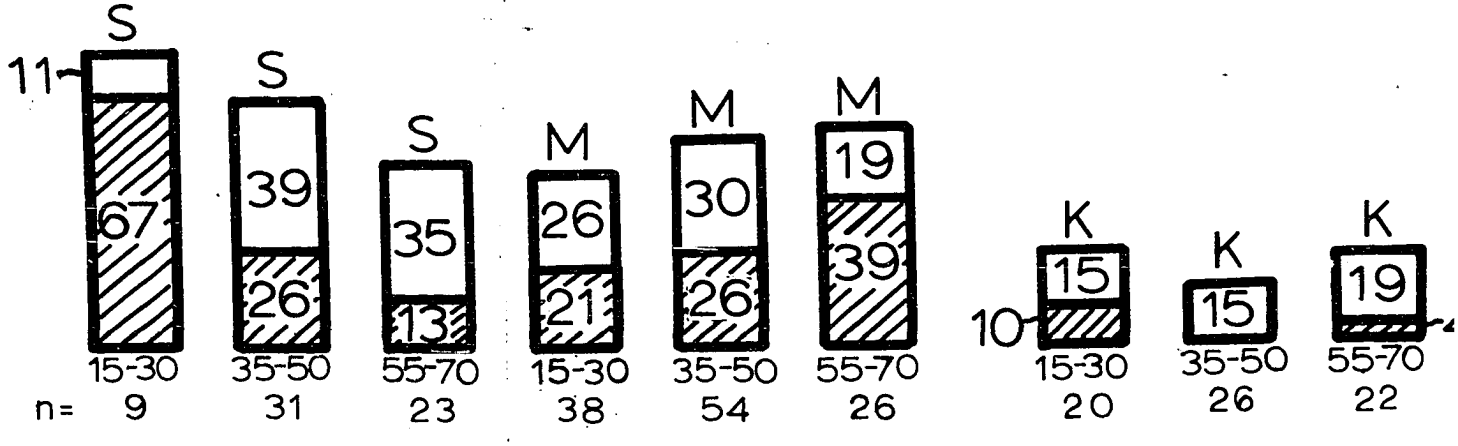

FIGURE 5

Stratification of (r) by store and age level [S=Saks, M=Macy's, K=Klein's. Shaded area=% all (r-1); unshaded area=% some (r-1).]

This is a puzzling result, especially in the light of the clear-cut evidence for the absence of (r-1) pronunciation

in New York City in the 1930's, and the subsequent increase in the records of Hubbell and Bronstein. Although the numbers of the sub-groups may appear small, they are larger than many of the sub-groups used in the discussion of the previous pages, and it is not possible to discount these results.

The conundrum represented by Figure 5 is one of the most significant results of the procedures that have been followed to this point. Where all of the other findings confirm the original hypothesis, a single result which does not fit the expected pattern may turn our attention in new and profitable directions. From the data in the department store survey alone, it was not possible to account for Figure 5 except in speculative terms. The following quotation is from the evaluation of the original report on the department store survey, written shortly after the work was completed:

> How can we account for the differences between Saks and Macy's? I think we can say this: the shift from the influence of the New England prestige pattern [r-less] to the mid-Western prestige pattern [r-ful] is felt most completely at Saks. The younger people at Saks are under the influence of the r-pronouncing pattern, and the older ones are not. At Macy's, there is less sensitivity to the effect among a large number of younger speakers who are completely immersed in the New York City linguistic tradition. The stockboys, the young salesgirls, are not as yet fully aware of the prestige attached to r-pronunciation. On the other hand, the older people at Macy's tend to adopt this pronunciation: very few of them rely upon the older pattern of prestige pronunciation which supports the r-less tendency of older Saks sales people. This is a rather complicated argument, which would certainly have to be tested very thoroughly by longer interviews in both stores before it could be accepted.

The analysis of the pattern of Figure 5 will be resumed in Chapter IX, as we study the distribution of the data from the Lower East Side survey through various age levels of that population.

Some possible sources of error

The method followed in this study is not without many sources of error. Some can be reduced, while others are inherent in the nature of the procedure.

The approach to sampling might well have been more systematic. In future studies, it would be preferable to select every fifth sales person, or to use some other method which would avoid the bias inherent in selecting the first available person. As long as such a method does not interfere with the basic unobtrusiveness of the speech event, it should improve the accuracy of the procedure without seriously decreasing its efficiency. However, there is no apparent bias in the present procedure which would seriously affect the comparison, since the same procedure was followed in all stores.

Another limitation is that the data were not tape recorded, as was done in most of the procedures described in this study as a whole. The transcriber, myself, knew what the object of the test was, and it is always possible that an unconscious bias in transcription would lead to the doubtful cases being recorded as (r-1) in Saks, and as (r-0) in Klein's. On the other hand, the phonetic detail was not complex, and

the precaution was taken of discounting entirely all doubtful cases, as noted above. Further, there is the unusually favorable factor that the sample is always available for rechecking, and this can be done by anyone in the course of a few hours. Thus the data are actually less subject to suspicion than many studies of speakers long since disappeared.

Another limitation is in the method used to elicit emphatic speech. Figure 2 indicates that the effect of stylistic variation may be slight compared to such a phonological alternation as pre-consonantal vs. final position. The total percentages for all three stores bear this out:

Percentage of all (r-1) for each position

Casual		Emphatic	
fourth	floor	fourth	floor
23	39	24	48

The problem may lie in the fact that a simple request for repetition is not an effective means of contrasting casual speech with a more formal style. In the following chapter more attention will be given to this problem.

Conclusion

The hypothesis with which this chapter opened has been confirmed by a severe test within a single occupational group, and we may conclude that (r) stratification is an integral part of the linguistic structure of the New York City speech community. An equally important aspect of this study is that

it has accomplished the aim suggested at the conclusion of Chapter II: to study language apart from the bias of the formal linguistic interview. The results of this study should terminate any suspicion that the pronunciation of (r-1) in New York City is limited to a narrow group of speakers, or that it is a phenomenon which occurs only in the presence of linguists and speech teachers.

In the following chapter, we will turn towards the problem of stylistic variation, which was only a marginal consideration in the department store survey. The next step towards the systematic study of all the variables will be the isolation of a range of contexts and styles, to represent the usage of the informant in many social contexts. But directly before us lies a contradiction. The study of stylistic variation under controlled conditions requires that the axis of social variation be defined as well, and held constant while stylistic variation is charted. This can only be done in a series of formal linguistic interviews of individuals whose social characteristics are well determined. Yet the formal interview itself is a context which normally requires formal speech; more generally, any style of speech used in a formal interview is biased towards the formal end of the spectrum of behavior. The next chapter will be devoted to the problem of studying the full range of stylistic variation within the bounds of the formal interview, and the definition of distinct styles as they emerge.

NOTES TO CHAPTER III

[1] Social Stratification (New York: Harcourt, Brace and Co., 1957), pp. 1-3.

[2] C. Wright Mills, White Collar, (New York: Oxford University Press, Galaxy Book, 1956), p. 173. See also page 243: "The tendency of white-collar people to borrow status from higher elements is so strong that it has carried over to all social contacts and features of the work-place. Sales-people in department stores . . . frequently attempt, although often unsuccessfully, to borrow prestige from their contact with customers, and to cash it in among work colleagues as well as friends off the job. In the big city the girl who works on 34th Street cannot successfully claim as much prestige as the one who works on Fifth Avenue or 57th Street."

[3] This statement is fully confirmed by answers to a question on newspaper readership in the Mobilization for Youth Survey of the Lower East Side, as described in Chapter VI. The readership of the Daily News and Daily Mirror (now defunct) on the one hand, and the New York Times and Herald Tribune on the other hand, is almost complimentary in distribution by social class.

[4] Macy's sales employees are represented by a strong labor union, while Saks is not unionized. One former Macy's employee considered it a matter of common knowledge that Saks wages were lower than Macy's, and that the prestige of the store helped to maintain its non-union position. Bonuses and other increments are said to enter into the picture. It appears that it is more difficult for a young girl to get a job at Saks than at Macy's. Thus Saks has more leeway in hiring policies, and the tendency of the store officials to select girls who speak in a certain way will play a part in the stratification of language, as well as the adjustment made by the employees to their situation. Both influences converge to produce stratification.

[5] A former Macy's employee told me of an incident that occurred shortly before Christmas several years ago. As she was shopping in Lord and Taylor's, she saw the president of the company making the rounds of every aisle and shaking hands with every employee. When she told her fellow employees at Macy's about this scene, the most common remark was, "How

else do you get someone to work for that kind of money?" One can say that not only do the employees of higher status stores borrow prestige from their employer--it is also deliberately loaned to them.

[6]The interviewer in all cases was myself. I was dressed in middle-class style, with jacket, white shirt and tie, and used my normal pronunciation as a college-educated native of New Jersey [r-pronouncing].

[7]Notes were also made on the department in which the employee was located, but the numbers for individual departments are not large enough to allow comparison.

[8]The notation outlined in the previous chapter will be adapted here to distinguish between a variable and a particular value of the variable. The symbol (r) is the variable, symbolizing the entire range of variation within the community which occurs in the specified positions in the linguistic sequence--in this case, the points where historical r is found in pre-consonantal and final position. The symbol (r-1) or (r-0) means a particular value of the variable--in this case, a constricted central glide-consonant or the absence of such a consonant respectively. An under-lined r refers to the spelling, which coincides with the position of the historical consonant.

[9]The "no data" category for Macy's shows relatively high values under the emphatic category. This discrepancy is due to the fact that the procedure for requesting repetition was not standardized in the investigation of the ground floor at Macy's, and values for emphatic response were not regularly obtained. The effects of this loss are checked in Table 2 below, where only complete responses are compared.

[10]In the sample as a whole, 17 informants with distinct foreign accents were found, and one with regional characteristics which were clearly not of New York City origin. The foreign language speakers in Saks had French, or other western European accents, while those in Klein's had Jewish and other eastern European accents. There were three Puerto Rican employees in the Klein's sample, one in Macy's, none in Saks. As far as sex is concerned, there were 70 men and 194 women. Men showed the following small differences from women in percentages of (r-1) usage:

	men	women
all (r-1)	22	30
some (r-1)	22	17
no (r-1)	57	54

CHAPTER IV

THE ISOLATION OF CONTEXTUAL STYLES

Linguists have never been unconscious of the problems of stylistic variation. The normal practice is to set such variants aside--not because they are considered unimportant, but because the techniques of linguistics are not thought to be suitable or adequate to handle them.[1] Structural analysis is normally the abstraction of those unvarying, functional units of language whose occurrence can be predicted by rule. Since the influence of stylistic conditioning on linguistic behavior is said to be merely statistical, it can only lead to statements of probability rather than rule.[2]

For the present purposes, I would rather say that stylistic variation has not been treated by techniques accurate enough to measure the extent of regularity which does prevail. The combination of many stylistic factors imposed upon other influences may lead to seemingly erratic behavior; but this apparent irregularity is comparable to the inconsistencies which seemed to govern the historical development of vowels and consonants until some of the more subtle conditioning factors were perceived.

At the end of the last chapter, it was suggested that the five phonological variables show regular variation through different styles and contexts in the speech of New Yorkers.

The problem now is to control the context, and define the styles of speech which occur within them, so that this hypothesis can be tested.

For accurate information on speech behavior, we will eventually need to compare the performance of large numbers of speakers. Furthermore, we will want to study a sample which is representative of a much larger group, and possibly of the New York speech community as a whole. This cannot be done without random sampling. Yet to complete random sampling, and to make the data for many speakers comparable, we need structured, formal interviews. Here is the paradox which we sensed: the formal interview itself defines a speech context in which only one speaking style normally occurs, what we may call careful speech. The bulk of the informant's speech production at other times may be quite different. He may use careful speech in many other contexts, but on most occasions he will be paying much less attention to his own speech, and employ a more relaxed style which we may call casual speech. We can hear this casual speech on the streets of New York, in bars, on the subway, at the beach, or whenever we visit friends in the city. Yet anonymous observations in these contexts will also be biased. Our friends are a very special group, and so too are those New Yorkers who frequent bars, play stickball in the streets, visit public beaches, or talk loud enough in restaurants to be overheard. Only through a painstaking method of sampling the entire population, and interviewing speakers chosen at random, can we avoid serious

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bias in our presentation. The problem is now to see what can be accomplished within the bounds of the interview.

Context B. The interview situation. The simplest style to define is what we have called careful speech. In our investigation, this is the type of speech which normally occurs when the subject is answering questions which are formally recognized as "part of the interview." Generally speaking, an interview which has as its professed object the language of the speaker,[3] will rate higher on the scale of formality than most conversation. It is certainly not as formal a situation as a public address, and less formal than the speech which would be used in a first interview for a job, but it is certainly more formal than casual conversation among friends or family members. The degree of spontaneity or warmth in the replies of individuals may vary greatly, but the relation of their careful speech to the speech of less formal contexts is generally constant.[4] Careful speech will then be defined as that speech which occurs in Context B, and will be designated Style B. For Context A and Style A, see page 102.

It is a relatively simple matter to shift the context from Context B in a more formal direction, though there are a number of ways of refining this procedure. In the following discussion, we will pursue the definition and control of more formal styles to its ultimate conclusion, before attempting to move in the opposite direction.

Context C. Reading style. After a half to three-

quarters of an hour of questions and answers, the informant is asked to read two standard texts. Both of these are given in the Questionnaire, in Appendix A. The first of them, "When I was nine or ten . . ." is presented in five paragraphs in which the chief variables are successively concentrated. The first paragraph is a zero section, in which none of the variables are found; the second contains a great many (oh) words, the third concentrates (eh), the fourth (r), and the fifth contains a high concentration of both (th) and (dh). This text has a double purpose: first, to measure in Context C the speaker's use of all five variables by an efficient means; second, to acquaint the subject with the text which is used as a base for the measurement of subjective reactions, as discussed in Chapter XI.

The second reading, "Last Saturday I took Mary Parker to the Paramount Theatre . . ." follows the design of a text constructed to resolve phonemic variation on Martha's Vineyard. In the present text, there are a number of words which form minimal pairs in respect to the chief variables: these are underlined in the text as it appears in Appendix A, but not, of course, as the informant reads them. The speaker's pronunciation of these words will tell us whether he uses the particular variable to distinguish words in reading style, and how he does so. The examples which concern (r) will illustrate the technique:

> . . . You're certainly in the dark! They tore down that dock ten years ago, when you were in diapers!

The speaker may differentiate dock and dark in any of the ways discussed in Chapter II.

> . . . she told him to ask a subway guard. My god! I thought, that's one sure way to get lost in New York City.

Here the speaker may pronounce god and guard the same, as /gahd/ [again using a phonemic notation appropriate to the traditional pattern described by Hubbell]. But he may also differentiate them as /gad/ vs. /gard/, or /gad/ vs. /gahd/.

> . . . and what's the source of your information, Joseph? She used her sweet and sour tone of voice, like ketchup mixed with tomato sauce.

The speaker may use (r-1) to differentiate source and sauce, which would then appear phonemically as /sors/ vs. /sohs/, or he may pronounce them both the same, or possibly differentiate them by the value of (oh), using (oh-3) for source and (oh-1) for sauce. Primarily, we will be interested in whether or not (r-1) functions in this style as an element to differentiate words, although the other details will be useful in the final view.

A complete list of the phonemic pairs used in the reading is given on the page following the text in Appendix A.

The phonemic reading is so designed that the words which form minimal pairs occur in close proximity. The transcriber can then hear the contrast by listening to the tape without cutting or editing. However, it is important that the pair be not so obvious that the reader will notice the contrast, and adjust the pronunciation of one word to fit or contrast with the other.[5]

The instructions given to the reader can govern certain variations in reading style. In both texts, the design was to standardize the context towards the informal end of the possible range. Thus the instructions were,

> We'd like you to read this as naturally as possible. In other words, we don't want you to read this as if you were in a school room, but to give us an idea of how you might actually say this if you were telling the story yourself.

The effect of such instructions is of course very slight. More influential is the nature of the text. It has been found, through the construction of a number of such readings, that a text which is ostensibly a narrative of a teen-age boy seems to lend itself to the least artificial performance for most people. In such a framework, it was possible to incorporate such phrases as, "He was a funny kid, all right." Elderly women might balk at such a phrase if it were placed in the mouth of an adult, but as the utterance of a teenage boy, it made natural reading for them.

The content of the readings carries this point further, by focusing on two main themes: the teenager's traditional protest against the restrictions of the adult world, and his exasperation at the foibles and inconsistencies of the girls he dates. Thus a number of phrases which are difficult to insert into other contexts, proceed quite naturally in this sentence:

> I wanted to go and see The Jazz Singer, but Mary got her finger in the pie. She hates jazz, because she can't carry a tune, and besides, she never misses a new film with Cary Grant.

It might have been possible to standardize in a different direction, by urging the subject to read carefully and slowly. The chief disadvantage of such an approach would be that very slow reading is accompanied by special phonetic characteristics which would make it difficult to compare conversation and reading style. For example, the question of final (r) followed by another word beginning with a vowel, as in four o'clock, may become quite confused if the tempo is very slow. In normal speech, a pronunciation in which no consonant occurs between four and o'clock would be entered as a violation of the rule followed by most New Yorkers which preserves (r-1) in this position. But such a rule begins to break down if speech is slow enough. Then too, in a very slow tempo of reading, the minimal pairs are more likely to be noticed by the reader. Therefore the over-all design of the two texts is to encourage a reasonably fast reading style.

There is no danger that the instructions given will bring reading style to a point where it becomes confused with careful conversation. The gap between Context B and C, by every measure of performance, is so great that the effect of the bias introduced by the instructions is barely noticeable in reducing this difference.[6]

The style used in reading under Context C will be designated Style C.

Context D. Word Lists. A further step in the direction of a more formal context is to consider the subject's pronunciation of words in isolation. There are three types of word

lists which are used for the investigation of the variables (r), (eh), and (oh). One is a list which the subject knows by heart, such as the days of the week or the months of the year. A second type is a printed list of words with the same or similar sound feature. One of these contains the (eh) variable, with a few associated occurrences of (r); the other contains (oh) words. These are printed in the Questionnaire in Appendix A.

The first half of the (eh) list sets up an alternation between words of sub-group a [see Chapter II, page 52 and sub-group c, as: bat, bad, back, bag, batch, badge . . . . This allows the transcriber to hear the pattern of differentiation very clearly, and if the speaker uses a corrected pattern with (eh-4) in all words, any deviation from this leveling is immediately obvious.[7]

The third type of word list continues the phonemic investigation begun in the "Mary Parker" reading. The subject is shown a list of words containing most of the minimal pairs which occurred in that reading, and a few more:

dock	dark
pin	pen
guard	god
"I can"	tin can
. . .	. . .

The subject is asked to read each pair of words aloud, and then say whether they sound the same or different to him as he usually pronounces them. Thus in addition to the phonemic

structure exemplified in Style C, we have the subject's performance in Context D, and his subjective reaction to that performance. All of this information will eventually be utilized in the discussion of phonemic structure. For the moment, the pronunciation used in this list is added to the values of the variables in the other word lists, and the average of all words for a given variable is the index under Style D.

Context D'. Minimal pairs. For the variable (r), it is useful to extend the spectrum of formality one stage further. In the word lists of Context D, (r) occurs in two situations. In one, the pronunciation of (r) is seemingly incidental, as in the reading of hammer and hamster in the (eh) list, or the names of the months ending in -er, or with such minimal pairs as finger and singer, mirror and nearer. Here (r) is pronounced in the formal context of a word list, but it does not receive the full attention of the reader. But in minimal pairs such as dock and dark, guard and god, source and sauce, bared and bad, (r) is the sole differentiating element, and it therefore receives maximum attention. We will therefore single out this sub-group of Style D, under the designation of Style D'.

The problem of casual speech

Up to this point, we have been discussing techniques for extending the formal range of the interview by methods

which fall naturally into the framework of a discussion about language. Now, within the interview, we must go beyond the interview situation, if we can. We must somehow become witnesses to the every-day speech which the informant will use as soon as the door is closed behind us: the style in which he argues with his wife, scolds his children, or passes the time of day with his friends. The difficulty of the problem is considerable; yet the rewards for its solution are great, both in furthering our present goal, and in the general theory of stylistic variation.

First, it is important to determine whether we have any means of knowing when we have succeeded in eliciting casual speech. Against what standard can we measure success? In the course of the present study of New York City speech, there are several other approaches to casual speech which have been used. In the exploratory interviews, I recorded a great deal of language which is literally the language of the streets. This material included the unrestrained and jubilant activity of a great many small children, and also some recordings of street games among young men, 18 to 25 years old, where I was an anonymous bystander. It may be that none of the conversation within the interview will be as spontaneous and free as this material. But if the informants show a sudden and marked shift of style in this direction, we will be justified in calling this behavior, casual speech.

Another check will be the department store survey, as described in the last chapter, in which the bias of the lin-

guist's presence disappeared completely. Here we can judge whether the type of alternation which is found within the interview gives us a range of behavior comparable to that which is found under casual conditions in every-day life.

The immediate problem, then, is to construct interview situations in which casual speech will find a place, or which will permit spontaneous speech to emerge, and than set up a formal method for defining the occurrence of these styles. By casual speech, in a narrow sense, we mean the every-day speech used in informal situations, where no attention is directed to language. Spontaneous speech refers to a pattern used in excited, emotionally charged speech when the constraints of a formal situation are overridden. Schematically:

Context:	Informal	Formal
Style:	Casual	Careful/Spontaneous

We do not normally think of "spontaneous" speech as occurring in formal contexts: yet, as we will show, this frequently happens in the course of the interview. Spontaneous speech is defined here as the counterpart of casual speech which does occur in formal contexts, not in response to the formal situation, but in spite of it.

While there is no a priori reason to assume that the values of the variables will be the same in spontaneous as in casual speech, the results of this investigation show that they can be studied together. At a later point, as we examine more deeply the mechanism of stylistic variation, it will be

possible to suggest an underlying basis for this identification. For the moment, either term will be used according to the nature of the context, but they will both be measured under the heading of Style A, or casual speech in general.

The formal definition of casual speech within the interview requires that at least one of five contextual situations prevail, and also at least one of five non-phonological cues. We will first discuss the contextual situations, which will be identified as Contexts A_1 through A_5.

Context A_1. Speech outside the formal interview.

There are three occasions within the larger context of the interview situation which do not fall within the bounds of the formal interview proper, and in these contexts, casual speech is apt to occur.

Before the interview proper begins, the subject may often address casual remarks to someone else in the household, his wife or his children, or he may make a few good-natured remarks to the interviewer. Although this is not the most common context for a good view of casual speech, the interviewer will not hurry to begin formal proceedings if there seems to be any opportunity for such an exchange. In several cases, where a housewife took time to wash the dishes, or a family to finish dinner, the interviewer overheard casual speech in some quantity.

After the interview begins, there may be interruptions, when someone else enters the room, or when the informant

offers a glass of beer or a cup of coffee. In the following example, the three paragraphs represent [1] speech in the formal interview directly before the break, [2] speech used while opening a can of beer for the interviewer, and [3] the first sentences spoken on the resumption of the formal interview.

[1] If you're not careful, you will call a lot of them the same. There are a couple of them which are very similar: for instance, width and with. [What about quard and god?] That's another one you could very well pronounce the same, unless you give thought to it.

[2] . . . these things here--y'gotta do it the right way--otherwise [laughter] you'll need a pair of pliers with it . . . . You see, what actually happened was, I pulled it over to there, and well . . . I don't really know what happened . . . . Did it break off or get stuck or sump'm?

. . . just the same as when you put one of these keys into a can of sardines or sump'm--and you're turning it, and you turn it lopsided, and in the end you break it off and you use the old fashioned opener . . . but I always have a spoon or a fork or a screw driver handy to wedge into the key to help you turn it . . . [laughter] I always have these things handy to make sure.

[3] [How do you make up your mind about how to rate these people?] Some people--I suppose perhaps it's the result of their training and the kind of job that they have--they just talk in any slip-shod manner. Others talk in a manner which has real finesse to it, but that would be the executive type. He cannot [sic] talk in a slipshod manner to a board of directors meeting.

In these examples, the shift in speech style can be perceived even as the conversation is reproduced in conventional orthography. The effects of channel cues, the phonological variables, the forms of words, syntax, and content all conform to the over-all shift of style.

The interviewer may make every use of this opportunity

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14 by moving away from his chair and tape recorder, and supporting the emergence of casual conversation. One great advantage of such a break is that it occurs in close juxtaposition with very careful speech, and the contrast is very sharp, as in this example given above. The sudden occurrence of radically different values of the variables is particularly marked in this example. The word otherwise in section [2] had (dh) in medial position which is rarely (dh-3) in this speaker's careful speech; (dh-3)does occur here in this word and makes a sharp impression on the listener.

The most frequent place for casual speech to emerge in Context A_1 is at the end of the interview. It is perhaps most common when the interviewer has packed away his equipment, and is standing with one hand on the door knob.[8]

Context A_2. Speech with a third person. At any point in the interview, the subject may address remarks to a third person, and casual speech may emerge here. One of the most striking examples occurred in an interview with a Negro woman, 35, raised in the Bronx, and then living on the LES in the poorest possible circumstances as a widow with six children. The following three sections illustrate the sharp alternations which occurred throughout the interview between her careful, quiet, controlled style used in talking to the interviewer, and the louder, higher-pitched style used with her children. Again, the grammatical and stylistic differences shown in conventional orthography illustrate the shift of style.

[1] . . . Their father went back to Santo Domingo when they had the uprising about two years ago that June or July . . . he got killed in the uprising . . . I believe that those that want to go and give up their life for their country, let them go. For my part, his place was here with the children to help raise them and give them a good education . . . that's from my point of view.

[2] Get out of the refrigerator, Darlene! Tiny, or Teena, of whatever your name is! . . . Close the refrigerator, Darlene! . . . What pocketbook? I don't have no pocketbook--if he lookin' for money from me, dear heart, I have no money.

[3] I thought the time I was in the hospital for three weeks, I had peace and quiet, and I was crying to get back home to the children, and I didn't know what I was coming back home to.

Interruptions of the interview by telephone calls sometimes provide unusually good opportunities to study casual speech. In one interview, the telephone interrupted the proceedings at the very middle. The informant had just returned from the summer spent in North Carolina, and one of her cousins was anxious for news of the family. I left the room with her nephew, and continued to talk to him quietly in another room; for twenty minutes, the informant discussed the latest events in a very informal style, and we thus obtained an excellent recording of the most spontaneous kind of speech.

Context A_3. Speech not in direct response to questions.

In some types of interview schedules, it is necessary to cut off long, rambling replies, or sudden outbursts of rhetoric, in order to get through with the work. In this interview program, the opposite policy prevailed. Whenever a subject showed signs of wanting to talk, no obstacle was interposed: the

longer he digressed, the better chance we had of studying his natural speech pattern. Some older speakers, in particular, pay little attention to the questions as they are asked. They may have certain favorite points of view which they want to express, and they have a great deal of experience in making a rapid transition from the topic to the subject that is closest to their hearts.

Context A_3 forms a transition from those contexts in which casual speech is formally appropriate, to those contexts in which the emotional state or attitude of the speaker overrides any formal restrictions, and spontaneous speech emerges.

Context A_4. Childhood rhymes and customs. This is one of the two topics within the interview itself which is designed to provide the context in which spontaneous speech is likely to emerge. The atmosphere or tone required for such a shift is provided by a series of questions which lead gradually to the topic of jump-rope rhymes, counting-out rhymes, the rules of fighting, and similar aspects of language drawn from the pre-adolescent period when the youngster participates in a culture distinct from that of adult society. Rhymes, for example, cannot be recited correctly in Style B of careful conversation. Both the rhyme itself, and the tempo, would be wrong if Style B were used in

Cinderella,
Dressed in yellow
Went downtown to buy some mustard,
On the way her girdle busted,
How many people were disgusted?
10, 20, 30 . . .

The following song, which is popular in New York City schools, does not permit the r-pronunciation which creeps into Style B:

> Glory, glory, Hallelujah,
> The teacher hit me with the ruler,
> The ruler turned red,
> And the teacher dropped dead,
> No more school for me.

Equally r-less pronunciation is implied in the traditional

> Strawberry short cake, cream on top
> Tell me the name of your sweetheart . . .[9]

If the compulsion of these rhymes demanded a return to a childhood pronunciation which was no longer normal, their use as evidence would be wrong. However, the pattern which is used in Context A_4 is quite comparable to that which is used in the four other contexts which are utilized. There is no necessity for the following rhyme to assume any particular value of (oh), yet (oh-l) is very common:

> I won't go to Macy's any more, more, more,
> There's a big fat policeman at the door, door, door,
> He pulls you by the collar
> And makes you pay a dollar,
> I won't go to Macy's any more, more, more.

The nine examples of (oh) in this rhyme provide a very efficient means of studying that variable.

Even in counting-out rhymes, where meter and rhyme are less compelling for the informant, we find that Style B is inadequate for

> My mother and your mother were hanging out the clothes,
> My mother punched your mother right in the nose.
> What color blood came out?
> [Green.] G-R-E-E-N spells green and you are not IT.

or for the much simpler

> Doggie, doggie, step right out.

Men as well as women will be able to repeat counting-out rhymes such as "Eeny meeny miny moe," or "Engine, engine, number nine." Lacking this, spontaneous speech is often obtained from men in the rules for playing marbles, or skelley, or punch ball.

Context A_5. The danger of death. Another series of questions, in a later section of the interview, leads to the following question:

> Have you ever been in a situation where you thought you were in serious danger of being killed--where you thought to yourself, "This is it"?

If the informant answers yes, the interviewer pauses for one or two seconds, and then asks, "What happened?" As the informant begins to reply, he is under some compulsion to show that there was a very real danger of his being killed; he stands in a very poor light if it appears that there was no actual danger. Often he becomes involved in the narration to the extent that he seems to be re-living the critical moment, and signs of emotional tension appear. One such example occurred in an interview with six brothers, from 10 to 19 years old, from a lower class Irish-Italian household. While most of the boys spoke freely and spontaneously in many contexts, the oldest brother was quite reserved and careful in his replies. He had given no examples of casual or spontaneous speech until this topic was reached. In a few sentences, a sudden shift in style occurred. The beginning of his narration followed his usual careful style:

> [What happened to you?] The school I go to is Food and Maritime--that's maritime training--and I was up in the masthead, and the wind started blowing. I had a rope secured around me to keep me from falling--but the rope parted, and I was just hanging there by my fingernails.

At this point, the speaker's breathing became very heavy and irregular; his voice began to shake, and sweat appeared on his forehead. Small traces of nervous laughter appeared in his speech.

> I never prayed to God so fast and so hard in my life . . . [What happened?] Well, I came out all right . . . Well, the guys came up and they got me. [How long were you up there?] About ten minutes. [I can see you're still sweating, thinking about it.] Yeh, I came down, I couldn't hold a pencil in my hand, I couldn't touch nothin'. I was shakin' like a leaf. Sometimes I get scared thinkin' about it . . . but . . uh . . well, it's training.

The effect of probing for the subject's feelings at the moment of crisis can be effective even with speakers who are much more articulate than this informant. One of the most gifted story tellers and naturally expressive speakers in the sample was Mrs. Rose B. She was raised on the Lower East Side, of Italian parents; now in her late 30's, she recently returned to work as a sewing machine operator. The many examples of spontaneous narrations which she provided show a remarkable command of pitch, volume and tempo for expressive purposes.

> . . . And another time--that was three times, and I hope it never happens to me again--I was a little girl, we all went to my aunt's farm right near by, where Five Points is . . . and we were thirteen to a car. And at that time, if you remember, about 20 or 25 years ago, there wasn't roads like this to go to Jersey--there was all dirt roads. Well, anyway, I don't know how far we are--I don't remember what part we were--one of the wheels of the car came off--and the whole car turned, and they took us all out. They hadda break the door off. And they took us out one by one. And I got a scar on my leg here . . . 'ats the on'y thing . . .

> [When the car turned over, what did you think?]
> . . . it was upside dow--you know what happened, do you know how I felt? I don't remember anything. This is really the truth--till today, I could tell that to anybody, 'n' they don't believe me, they think I'm kiddin 'em. All I remember is--I thought I fell asleep, and I was in a dream . . . I actually saw stars . . . you know, stars in the sky--y'know, when you look up there . . . and I was seein' stars. And then after a while, I felt somebody pushing and piling--you know, they were all on top of each other--and they were pulling us out from the bottom of the car, and I was goin' "Ooooh."
>
> And when I came--you know--to, I says to myself, "Ooooh, we're in a car accident,"--and that's all I remember--as clear as day--I don't remember the car turning or anything. All I know is I thought I went to sleep. I actually felt I went to sleep.

Channel cues for casual speech

The five contexts just described are only the first part of the formal criteria for the identification of Style A in the interview.[10] It is of course not enough to set a particular context in order to observe casual speech. We also look for some evidence in the type of linguistic production that the speaker is using a speech style that contrasts with Style B. To use phonological variables would involve a circular argument, because the values of these variables in Styles A and B are exactly what we are trying to determine by the isolation of styles. The best cues are channel cues: modulations of the voice production which affect speech as a whole.[11] Our use of this evidence must follow the general procedure of linguistic analysis: the absolute values of tempo, pitch, volume, and breathing may be irrelevant, but contrasting values of these characteristics are cues to a dif-

ferentiation of Style A and Style B. A change in tempo, a change in pitch range, a change in volume or rate of breathing, form socially significant signs of a shift towards a more spontaneous or more casual style of speech.[12]

Whenever one of these four channel cues is present in an appropriate context, the utterance which contains them is marked and measured under Style A. The fifth channel cue is also a modulation of voice production: laughter. This may accompany the most casual kind of speech, like the nervous laughter in the example on page 109, and is frequently heard in the description of the most dramatic and critical moments in the danger-of-death narration. Since laughter involves a more rapid expulsion of breath than in normal speech, it is always accompanied by a sudden intake of breath in the following pause. Though this intake is not always obvious to the listener in the interview situation, the recording techniques being used in this study detect such effects quite readily; it is therefore possible to regard laughter as a variant type of changes in breathing, the fourth channel cue.

The question now arises, what if a very marked constellation of channel cues occurs in some Context B? Intuition may tell us that this is spontaneous speech, but the formal rules of this procedure instruct us to consider it Style B. This is a necessary consequence of a formal definition. The situation may be schematized in this way:

intuitive observations	Careful speech	Casual speech
formal definition and measurement	Style B	Style A

As this diagram indicates, Style B as formally defined overlaps Casual Speech as intuitively observed. Some examples of casual speech will occur outside of the five contexts given, conditioned by some less prominent context we have not considered, and these will be lost by the formal definition. However, since the body of careful speech bulks much larger than casual speech, this small amount of comparatively casual speech now included under Context B and Style B will not seriously distort the values for careful speech. If, on the other hand, there should be overlap in the other direction, with a definition which specified the contexts of careful speech, the resulting admixture in the smaller bulk of casual speech would be a source of serious distortion. By leaving careful speech as the unmarked category, we are protected from such distortion.

What are the actual proportions in our material of casual and careful speech as defined? This was determined in a random sample of ten percent of the adult interviews of the Lower East Side survey, using a combined index for each interview of the total incidence of (dh) and (r) in each style. These variables occur very frequently in all styles of speech;

the total number of all variants is proportional to the total volume of speech. Instead of counting words, we then take the sum of all (dh) and (r) variants in a given style--totals we already have on hand--as a measure of the volume of speech in that style.[13] The mean proportion for the group is

Style A, Casual Speech	29%
Style B, Careful Speech	71%

An alternate course would have been to rely only upon channel cues, without reference to the context. This would have been far less reliable, for in many contexts, the channel cues vary continuously, and to determine where contrast occurred, and where it did not, would have often been very difficult. The interview as now constructed provides for sudden shifts of contexts which have sharp boundaries. These shifts thus enable us to observe sudden contrasts in the channel cues. It is not contended that Style A and Style B are natural units of stylistic variation: rather they are formal divisions of the continuum set up for the purposes of this study, which has the purpose of measuring phonological variation along the stylistic axis. The discovery of natural breaks in the range of stylistic phenomena would have to follow a very different procedure. It is not unlikely that the results of the present work, yielding sensitive indexes to linguistic variation, may eventually be applied to this end.

The array of stylistic variation

The validity of our method may be tested by comparison with other means of recording casual speech. It can also be measured against psychological experiments which attain similar results by completely different methods.[14] But even before such steps are taken, it becomes evident from the regularity of the distinctions which appear in the dependent variables, that the stylistic divisions we have set up correspond to some regular alternation in the linguistic behavior of New York City speakers.

In the course of the interview, there is a steady process of familiarization which diminishes the formality of the context. It would be desirable to rotate the succession of Styles B, C, D, and D' in order to detect and cancel out such a familiarization effect. However, the structure of this interview does not permit such a rotation: once the readings and word lists have been brought forward, a certain amount of conscious attention has been focused on the variables. Style B which follows C or D is considered contaminated for this reason and is not used.

The full range of contexts and styles elicited by the methods described above, providesus with the following array of values to be determined:

Style

Variable	A	B	C	D	D'
(r)	x	x	x	x	x
(eh)	x	x	x	x	
(oh)	x	x	x	x	
(th)	x	x	x		
(dh)	x	x	x		

The first native New Yorker to whom this method was applied was Miss Josephine P., 35, who lived with her Italian born mother in the same Lower East Side tenement apartment where she was born. Miss P. attended high school on the LES, and completed almost four years of college. At the time of the interview, she worked as a receptionist at Saks 5th Avenue. Josephine P.'s style of speech is lively and rapid; she seems to be an outgoing person who has no difficulty in making friendly contact with strangers. Her careful conversation, in Context B, seems at first to be equivalent to the casual conversation of most speakers. Yet two short samples of casual speech were recorded, which contrasted with her speech in Context B. We thus have the complete array of average values of the variables for this speaker:

Stylistic array for Josephine P.

Variable	A	B	C	D	D'
(r)	00	03	23	53	50
(eh)	25	28	27	37	
(oh)	21	23	26	37	
(th)	40	14	05		
(dh)	34	09	09		

This chart shows us a regular progression for each of the variables, through each of the styles, [with the slight deviations noted below]. On the top line, we see that Josephine P. used no (r-1) in casual speech, only a trace in careful speech, 23% (r-1) in reading, and finally pronounced fully half of the isolated words with (r-1). On the second line, we see that her casual use of the (eh) variable in the word class of ask, bad, dance, reached values close to the vowel (eh-2), the sound in where. [As defined in Chapter II, the (eh) and (oh) indexes are the average values of the variable on the scale of 1 to 6, multiplied by 10.]

Josephine P.'s use of (oh), on the third line, shows a close approximation to (oh-2) in casual speech, but in the most formal contexts, the vowel used is a very open one, more open than any sound naturally used in conversation in New York City. The bottom two lines show that she uses a very noticeable amount of stops and affricates for (th) and (dh) in her casual speech; although these drop to slight traces when she is being careful, she never reaches the index of (th)-00 or (dh)-00--that is, she always shows traces of stops and affricates, even in reading style.

The two sections of casual speech which were recorded in contrast to Style B occurred in Context A_1, extra-interview. In one section, Josephine P. talked with some emotion about her dead father, as she remembered him from her childhood, and the dolls he brought her from the factory where he worked. The associated channel cues were laughter, increase in tempo,

and a change in the rate of breathing. The second section was a burst of irritation at the behavior of other tenants in the building, with increased pitch and volume. Both of these were recorded after the interview, as I sat having coffee with Josephine P. and her mother.

In the normal course of an interview, the speech of Josephine P. would have been accepted as free and spontaneous; but since the present procedure assumes that the speech of Context B cannot be truly casual, all of the contexts relevant to Style A were examined. The emergence of a very different speech pattern in the measurements of the five variables under Style A as defined confirms our expectation. Many other examples confirm the idea that this method can successfully isolate contrasting speech styles where a less carefully constructed interview would report the presence of only one.

In the over-all pattern, there are two slight reversals, both less than five per cent in magnitude. This is remarkable when we consider the irregular fluctuations of the variables that seem to mark the individual sections of speech. For example, here are the occurrences of (th) in casual speech, in the order that they occurred: 1221221111; and here are the occurrences in careful speech: 22111111111112121. There seems to be no pattern or system within this sequence--yet it fits into the larger pattern shown in the array of styles.

The total number of items upon which the array of page 115 was based is not large; a relatively small number of

occurrences establish the progressions, despite the variations within each style.

If we were to return to the notion of idiolect, each of the styles would have to be considered a distinct idiolect, and each is fully as irregular as the examples given in Chapter II. It again becomes apparent that such a notion is not a useful one for describing the structure of New York City English.

The following chart shows the number of instances for each value.

Frequency array for Josephine P.

Variable	A	B	C	D	D'
(r)	18	66	44	15	4
(eh)	4	4	28	13	
(oh)	10	11	19	11	
(th)	10	29	20		
(dh)	26	65	35		

This array of frequencies shows three weak points, at (r) D', and at (eh) A and B, where there were only four occurrences of the variable in each cell. This limitation of the data allows errors in perception and transcription, as well as variation in the usage of the individual, to affect the final result significantly. If this array is now compared with the table of the average values of the variables given on page 115 above, it appears that the low points of frequency coincide exactly with the points where small deviations from the over-all pattern were found. The implication of this finding is that if more occurrences of (eh) A and B and (r) D' were

introduced, the behavior of the subject might be seen as perfectly regular.

The next New Yorker who was interviewed by this procedure was Abraham G., 47, a high school graduate, native of the LES, of Polish Jewish parents. He lives in a public housing project, and drives a taxi for his regular income. In contrast to Josephine P., this informant was immediately and obviously a multiple-style speaker. In Context B, he used a fluent but self-conscious style, which reflected his experience in many committee meetings as head of his American Legion chapter. His Style B, which employed such phrases as the armed forces for 'army', and fair and equitable for 'fair', was obviously not his casual style. He even managed to tell several long and exciting stories of near-hold-ups, in the danger-of-death section, without losing the elevated manner of Style B. However, midway through the interview, he stopped to offer me a can of beer, and delivered the humorous monologue quoted on page 103, which is the main basis for the Style A column in the following array:

Stylistic array for Abraham G.

Variable	A	B	C	D	D'
(r)	12	15	46	100	100
(eh)	35	36	39	40	
(oh)	10	18	29	20	
(th)		17	00		
(dh)	72	33	05		

Frequencies

8 60 39 7 5
6 22 18 13
3 11 16 11
1 20 20
18 78 35

IV-30

The blank spot in the array, at (th) A, is the point where the single occurrence of (th) [as a stop] could not be used for a rating. The only apparent irregularity is the change of direction at (oh) D: as we shall see later, this is not uncommon. Comparison with larger numbers of speakers will be necessary to resolve this point.

In most cases, the interview procedure isolates Style A in more than one context. The case of Mrs. Doris H., 39, is typical. She is a Negro, raised on Staten Island, a high school graduate; her husband is a New York City policeman. Mrs. H. showed a wide range of stylistic behavior, from the careful, well reasoned, highly organized replies of Context B, to sudden outbursts of spontaneous humor that marked her as a person of considerable wit and charm. Her chart shows spontaneous speech in Context A_2 [speech to a third person] as she rallied her thirteen-year-old son on his tendency to show off; in Context A_3 [not in direct response] as a long account of the tactless behavior of some of her friends, with direct quotations; in four cases within Context A_4 [childhood rhymes] and in Context A_5 [danger of death]. In these seven sections of Style A, the most prominent channel cues are sudden increase in volume, and laughter; occasionally there was an increase in tempo and in rate of breathing. The resulting array of the variables is quite regular in its left to right progression except for (eh):

Stylistic array for Doris H.

Variable	A	B	C	D	D'
(r)	00	31	44	69	100
(eh)	30	26	32	29	
(oh)	18	21	23	25	
(th)	80	24	12		
(dh)	50	22	16		

Frequencies

29 64 55 19 4
3 10 25 13
16 21 18 11
5 29 24
28 85 42

Part of the reason for the irregularity is (eh) A, represented only by three vowels [all of them before nasals]. We do find that values of (r) in Style D' are usually quite regular, even though there are only four instances. The over-riding affect of the formality of the context seems to provide quite uniform results. But in all other contexts, three or four items seem to be insufficient to provide values that fit into a regular array. This problem disappears as we begin to sum the arrays of individuals to obtain values for social groups. The other deviation at (eh) D, is based on sufficient evidence, and indicates again that a reversal at (eh) D and (oh) D is more common than a reversal in the pattern anywhere else. The great range in (r-1) pronunciation which is seen here, from 00 to 100, is a frequent characteristic of the linguistic class of speakers to which Mrs. H. belongs, as will be seen in Chapter VII.

A very different type of character may be considered in the case of Steve K. He is a very intense young man, 25 years old, now a copyreader's assistant, living in a 5th-floor walk-up tenement on the East Side. He came to the LES only

three years ago from Brooklyn, where he was raised, a third generation New Yorker. His grandparents were Jewish immigrants from Eastern Europe.

Steve K. might be considered a deviant case in many ways. He studied philosophy for four years at Brooklyn College, but left without graduating; he has turned away from the academic point of view, and as an intense student of the psychologist Wilhelm Reich, seeks self-fulfillment in awareness of himself as a sexual person.[15] His attitude towards language is much more explicit than that of most people. He was unique among the informants in being aware of all five of the chief variables, and believed that he was able to control or at least influence his own usage. He has consciously tried to reverse his college-trained tendency towards formal speech, and to re-instate the natural speech pattern of his earlier years. In other words, he deliberately rejects the pattern of values reflected in the array of numbers shown in the preceding examples.

Steve K.'s self-awareness, and his set of values, might prepare us to find a radically different pattern in the array of the variables, if we believed that the linguistic and social forces operating here are subject to conscious manipulation. But as a matter of record they are not. Except for the fact that the (th) and (dh) patterns operate at a low level, this array is quite similar to that of Abraham G. The only deviation from a regular progression is that at (eh) D.

Stylistic array for Steve K.

Variables	A	B	C	D	D'
(r)	00	06	08	38	100
(eh)	28	33	34	30	
(oh)	22	23	25	30	
(th)	09	00	00		
(dh)	15	06	05		

Frequencies

32 70 49 16 3
6 16 25 13
5 27 18 11
11 12 24
34 55 42

For New Yorkers of Steve K.'s age, all of these variables will remain variables in normal speech, no matter what conscious adjustments are attempted. Not one speaker in the sample who was raised in New York City was able to use 100% (r-1) in conversation, and this includes a great many speakers who were consciously aiming in that direction after (r) had been discussed. For example, Steve K. claimed that his present performance was a deliberate step backward from his college days, when he had pronounced all or most (r) as (r-1). I then asked him to re-read the r paragraph from "When I was nine or ten," and pronounce all (r) as (r-1).

His first attempt was a complete failure, and his second start no better. I asked him to read a little more slowly. He continued and produced an (r) index of 33. A third try produced a step upward to 45. A fourth attempt gave 61, and in a fifth trial, he seemed to level off at 69. He then confessed that he probably could not have pronounced that much (r-1) when he was in college.

Steve K.'s inability to deal with a few sentences containing only thirteen (r)'s suggests that the original reading

score of 38 is probably very close to the pattern which was solidified in his college days. Despite his profound shift in ideology, the speech pattern dictated by equally profound forces remains constant. It is not likely that he could, by his own efforts, return to zero or reach much higher than 38 in extended reading style.

Many similar tests could be cited. The most consistent and highly controlled speaker in the survey was Warren M., 27, a social worker and graduate student. At college he had been intensively trained in speaking technique, had done a great deal of acting, and was justly proud of the control he could exert over his voice. His original reading of the r paragraph was at an index of 68. After a thorough discussion of (r), he read again to produce a perfectly consistent version. A very slow reading gave 90; fast, 56; more careful, 80; a repeat, 80; again, concentrating on voice quality 63; he then recited Jabberwocky at 88.[16]

Merwin M., a less sophisticated speaker of the same age, was able to improve his performance from (r)-28 to (r)-50. There is reason to think that older speakers would have less ability to shift, and that only very young ones, just emerging from their pre-adolescent years, would be able to make radical changes in their pattern by conscious attention.

Martha S., a very careful, Jewish middle-class speaker of 45, was asked to read several paragraphs after discussion.

	Original reading	Conscious effort
(r)	45	47
(eh)	40	40
(oh)	28	29

The (eh) index was already at the point preferred by the speaker, but the (oh) items still fluctuated considerably, and the small increases in both (r) and (oh) show her inability to attain the desired result. On the other, her daughter, Susan S., 13, was able to read with an (r) index of 50, and after discussion, reach as high as 75. Her normal (oh) index of 15 was shifted to 28 as she imitated her mother.

An even more dramatic case was that of Bonnie R., ten years old. Whereas her parents used no more than 5 or 10 per cent (r-1) in reading, she was able to go from an (r) index of 14 to (r)-64 after this variable was discussed in the family interview.

The compelling nature of the pattern of stylistic alternation appears to operate at the extremes of the social scale, as well as in the center. Below, we may compare the record of two New Yorkers of radically different education and social status. On the left is the performance of Bennie N., 40, a truck driver who finished only the first term of high school. On the right is the record of Miriam L., 35, who graduated from Hunter College and St. John's Law School, and is now practising law on the Lower East Side. [The headings of the array of variables will hereafter be omitted; the pattern in

every case will be that shown at the top of page 115.]

Stylistic array for Bennie N.					Stylistic array for Miriam L.				
00	00	13	33	33	32	47	39	56	100
19	21	26	22		28	38	40	39	
15	20	24	20		20	26	30	30	
168	81	58			00	00	00		
153	96	38			25	04	02		

The absolute values of these variables are as totally opposed as any pair of speakers we might choose. But the structure of stylistic variation is essentially the same. In this comparison, one can find a statement of the theme which will dominate this study of social stratification of language: that New York City is a speech community, united by a common evaluation of the same variables which differentiate the speakers. The structure seen above is the concrete manifestation of that evaluation.

The differences between the speakers are, of course, very real. Bennie N. uses no (r-1) in conversation; at her most casual, Miriam L. uses large numbers of (r-1) variants. The (eh) sound for Bennie N. is normally that of <u>where</u>; Miriam L. aims for the sound of <u>that</u> and <u>bat</u> and usually reaches it. For Bennie N., stops are practically normal forms of (th) and (dh); Miriam L. never uses anything but the prestige form for (th), and only a few affricates for (dh) except in the most casual style.

At this point, one might ask whether the difference may be in large part that Miriam L. recognizes the formal situation of the interview, and never uses her casual style in this interview, while Bennie N. doesn't care that much about making a good impression. Perhaps Miriam L.'s true casual style, outside of the interview, is not so different, after all.

The record of the survey in general shows that this is not the case. Here in particular, I can resolve a part of the doubt since I spent fifteen minutes waiting in Miss L.'s office while she discussed business affairs with a client. The client seemed to be an old friend, and in any case, Miss L. did not know who I was, and language had not entered the picture. We may compare the record of this conversation with the Style A and Style B of the interview:

	With Client	Style A	Style B
(r)	40	32	47
(eh)	30	28	38
(oh)	27	20	26
(th)	00	00	00
(dh)	00	25	04

As we compare the style used with the client with the results of the interview, it appears to lie somewhere in between Style A and Style B, perhaps closer to B. In any case, the casual style elicited by the interview is considerably less formal than that which Miss L. uses in the daily execution of her business affairs.

Finally, it should be noted that not all of the speakers who were interviewed show patterns as regular as those just displayed. There are many deviations which cannot be explained within the data provided by a single interview, although the great bulk of material does appear as a coherent system. It may be profitable to make a comparison of two older speakers whose backgrounds are as radically opposed as the two just considered. On the left, below, is the record of Jacob S., 61, a retired mailman who lived all his life on the LES; on the right is Carl L., 56, a pharmacist who is extremely active in civic affairs of the East Side.

Stylistic array for Jacob S.					Stylistic array for Carl L.				
07	09	04	30	75	16	12	18	23	00
20	29	31	31		--	25	32	23	
19	22	29	26		20	24	29	25	
50	47	10			--	22	05		
85	51	15			37	21	20		

These older speakers share certain common features of stylistic variation: neither shows a regular pattern for (r), although the last two figures of Jacob S. do show a sudden increase. They show similar patterns for (eh) and (oh), with a steady rise in the values [indicating more open vowels], until D, when the trend is reversed. Both show a regular decrease in the value of (th) and (dh) with more formal contexts. In comparison to the case of Bennie N. and Miriam L., there is far less difference shown here in the absolute values of the variables.

The structure of stylistic variation

At the beginning of this investigation, we proposed to reduce the irregularity in the linguistic behavior of New York speakers by going beyond the idiolect--the speech of one person in a single context. We first isolated the most important variables which interfered with the establishment of a coherent structure for these idiolects. After defining and isolating a wide range of styles in highly comparable interview situations, we were able to discover a regular pattern of behavior governing the occurrence of these variables in the speech of many individuals.

The term structure has been used so often in linguistic discussion that it sometimes slips away from us, or becomes fixed in denoting a particular kind of unit which was originally analyzed by structural considerations. Thus a list of phonemes may be taken as a structural statement, though no structure uniting the list is given, other than the fact that each unit is different. The excellent definition of Webster's New International Dictionary (2nd Edition):

> structure, the interrelationship of parts as dominated by the general character of the whole

describes the pattern of stylistic variation which has been shown in the foregoing pages. But in addition to this description, twentieth-century linguistics has added the requirement that linguistic structures be composed of discrete units, which alternate in an all-or-none relationship.[17]

The dimensions of stylistic variation that have been

illustrated cannot satisfy this requirement--at least, not by the evidence that has been presented. The sharp contrasts between Styles A through D' are in part artifacts of the procedure. If this dimension is thought of as a continuum, then the method of dividing that continuum used here is perfectly adequate; if one suspects that natural breaks in the continuum exist so that in natural situations one does not pass evenly and continuously from careful to increasingly casual speech, this must be demonstrated by other methods.

If contrast exists between casual and careful styles, and the variables which we are using play a significant role in that contrast, they do not seem to operate as all-or-none signals. The use of a single variant--even a highly stigmatized one such as a centralized diphthong in bird and shirt--does not usually produce a strong social reaction; it may only set up an expectation that such forms might recur, so that the listener does begin to perceive a socially significant pattern. Every speaker occasionally begins a (dh) word with a sharp onset, which can be interpreted as an affricate, (dh-2). However, in the prestige form of speech, these forms recur so seldom that they are negligible. Any pattern of expectation set up by them dies out before the next is heard. It is the frequency with which Bennie N. uses such forms that has social significance, and it is essentially one level of frequency which contrasts with another level in the structures outlined above.

Are there breaks in the continuum of possible frequencies?

This will become apparent as we discuss the results of the Lower East Side Survey as a whole. However, the very clear-cut type of all-or-none reaction which is characteristic of phonemic units will be found not in performance so much as in evaluation, as will appear in Chapter XI. In the meantime, whether or not we consider stylistic variation to be a continuum of expressive behavior, or a subtle type of discrete alternation, it is clear that it must be approached through quantitative methods. We are in no position to predict exactly when a given speaker will produce a fricative, or when he will produce a stop. A complex of many factors operate to obscure stylistic regularities at the level of the individual instance. The remarkable fact is that the basic unit of stylistic contrast is a frequency set up by as few as ten occurrences of a particular variable.

We have seen that such frequencies contrast regularly in the different styles of one speaker, and have shown examples of how frequencies in the same style can contrast one speaker with another. The next step is to take up the cue offered by the last four examples in this chapter, and chart the distribution of both stylistic and social contrast of the five variables throughout the population as a whole.

To accomplish this purpose, the method of isolating contextual styles must be applied systematically to a cross-section of New York speakers. This was done by means of the survey of the Lower East Side carried out with the formal linguistic interview, constructed around the methods described

in this chapter. The following chapter will describe the questionnaire in which these methods are embedded. We will then proceed to an account of the area to be surveyed, and of the method of sampling. We will then be ready for the exact statement of the distribution of the five variables.

NOTES TO CHAPTER IV

[1]See the quotation from Harris in notes to Chapter II.

[2]The evidence presented in this work does not contradict this point of view; the regularities with which we shall deal are characteristic of a group of utterances, rather than a single utterance, and no matter how certain the findings may be, they are based upon a distribution of events rather than a rule for each event.

[3]The extended formal interview of the Lower East Side population was necessarily presented as an interview about language. The study of standard reading behavior, of the pronunciation of isolated words, of linguistic attitudes, and above all, the inquiry into subjective reactions, could not have been conducted under any other pretext. The television interview [as discussed in Chapter VI] and the department store survey described in the last chapter are examples of the limited objectives that can be achieved under other flags.

[4]Concrete illustrations of this statement will be provided later in this chapter; more systematic proof is given in Chapter VII.

[5]In this aim, the reading was successful. Few of the speakers were aware of the minimal pairs, as noted by their volunteered remarks and by direct questioning. Another important requirement is that the words occur in approximately the same prosodic position, with the same stress and contour. This is not always carried out perfectly in the reading, but gross violations are avoided.

[6]A few upper middle class speakers seemed to have the degree of control and self-awareness needed to modify their reading style in the direction of conversational style, but this is a rare effect and not a very large one.

[7]The rhythmic effect produced by this alternation may have made it more difficult for speakers to preserve an acquired pronunciation than in an unstructured list. Thus we find that the number of irregularities in the overall pattern of stylistic variation is greater with (eh) than with (r) in Style D. See below, pages 259-60. On the other hand, there are even more irregularities [reversals of the informal-formal progression] with (oh) D, which is not as

rhythmically structured. The accumulation of a great many examples of a variable in close proximity may be the factor which disturbs the pattern, as many speakers find it more difficult to preserve a learned pronunciation in this case than where words are widely spaced.

[8]The interviewer is not a passive agent in any of these circumstances. By his participation in the developing informality, he can help casual speech to emerge. At the termination of the interview, he can also terminate his role as interviewer, and behave like any other tired, hot, or sleepy employee who has now finished his job and is free to be himself.

[9]The acceptable half-rhyme here implies a pronunciation of -heart as /hat/, with a fairly short vowel. Such pronunciations are not rare in the city, as indicated in Chapter II.

[10]There is a subordinate context which is usually found in association with those listed above. This is the use of direct quotations in a reply. Should this occur in the interview outside of the five contexts given, with the appropriate channel cues, it is allowed as Style A.

[11]These would be considered modifications of the Message Form rather than the Channel in the terminology used by Dell Hymes, "The Ethnography of Speaking," Anthropology and Human Behavior (Washington, D. C.: Anthropological Society of Washington, 1962). In the framework suggested by Hymes, the more formal styles of reading would represent a shift in the channel; the elicitation of casual speech would be encouraged by shifts in the Setting and Topic, and the phonological variables appear as variations in the Code.

[12]The use of these criteria is not based upon an exact, objective procedure, but upon our general knowledge of these socially significant signs. A precise study of these cues as a preliminary would have involved too great an effort for too small a gain, since it was considered that the confirmation of this selection of cues would come from the consistency of the final correlations.

[13]The use of (dh) or (r) alone would have produced serious bias. For some speakers, primarily lower-class white and Negro speakers, (r) is not a variable, and is not recorded as such on the transcription forms. For others, primarily middle class speakers, (dh) is always a fricative, and is not tabulated. There are no speakers in the sample for whom neither of these features is a variable. It is interesting to note that the (dh) variable gives a somewhat higher percentage for casual speech: 33% as against 26% for (r). This is probably a reflection of the greater spontaneity and more casual approach of many working class speakers.

[14]For one such record of casual speech outside the procedures of the linguistic interview, see "The Punch Ball Game" in Appendix B. The values of the variables shown there may be compared to the arrays of this chapter, and the stratification diagrams of Chapter VII.

A completely different approach to stylistic variation may be derived from psychological experiments conducted by Dr. George Mahl of the Yale School of Medicine. He used colorless, random noise as a means of eliminating subjects' ability to hear their own speech, and studied the resulting effect upon their speech performance. The speech of his subjects was studied during three interviews, under four conditions: with white noise, facing the interviewer and not facing the interviewer; without white noise, facing the interviewer and not facing the interviewer. In many cases, there were sharp changes in pitch, volume, intonation, and the length of responses to questions when audio-monitoring was eliminated. In several cases, there were changes in the speech pattern which seemed to have social class significance. In cooperation with Dr. Mahl, I applied the techniques described in this study to several of these cases. A study of the New Haven speech pattern developed a list of socially significant variables; the most important of these for the speech behavior of Mahl's subjects was [dh]. The [dh] index was applied to the recorded interview for one particular subject, who showed the same type of variation which we have seen for New York subjects in the linguistic interview. Under the effect of white noise, his [dh] index rose consistently, and when audio-monitoring was restored, the index fell to its usual level. The index was also higher when the subject was facing away from the interviewer. These relationships were maintained throughout three interviews, though in the course of the interviews, increasing familiarization with the interviewer and the situation was accompanied by a steady increase in the absolute value of the index. The results of this study, now being prepared for publication, suggest that spontaneous speech as well as casual speech as defined in our interview is accompanied by a reduction in audio-monitoring by the subject. An increase in audio-monitoring would correspondingly accompany a shift to more formal styles.

[15]Steve K.'s definition of a <u>successful man</u> puts his point of view very concisely: "a man who is fully aware of himself . . . of his own sexuality and of his emotions . . . who always knows what he feels towards each person he meets."

[16]It appears here, as indicated in note 7, that a high concentration of (r) words makes more difficulties than a long text with the (r)'s dispersed. A similar effect was noted in the (th) paragraph; some speakers saw the phrase <u>this thing, that thing, and the other thing</u>, some even took a breath before attempting it, but by the time they reached the fifth or sixth item, fatigue set in, and with it, (dh-3).

[17]Thus the phonological structure is built with discrete units, phonemes that are themselves the products of the natural economy of the language. The structural units of the vowel systems are not artifacts of the analytical procedure: the categorizing procedure which breaks the continuum into highly discrete units, can be tested and observed.

CHAPTER V

THE LINGUISTIC INTERVIEW

The methods for isolating contextual styles, as discussed in the last chapter, were designed to be applied in a series of formal linguistic interviews. These interviews were conducted on the Lower East Side, as a secondary survey of a sample population that had already been carefully studied for its social characteristics. In Chapter VI, we will discuss the methods and the design of this social survey, and the sampling methods which were followed for the linguistic study. In the present chapter, we will be concerned only with the linguistic interview itself, as it would be applied to any speaker of English.

As it now stands, the interview is constructed around the problem of isolating contextual styles, and almost every detail of the questionnaire can be understood from that point of view. In the evolution of the questionnaire, however, the situation was not so clear cut. The method for isolating contextual styles gradually emerged from the interview as it evolved in exploratory studies; as the importance of the exact definition of style became apparent, and the ways of eliciting casual speech were developed, the interview was re-shaped to its present form. As it now stands, every part

of the interview serves a double purpose:

[1] to measure the values of the five phonological variables in the context and style of that section

[2] to gather the information which is the ostensible subject of the questions being asked.

In general, the first purpose is dominant, and the content of the questionnaire may be sacrificed to obtain better information on the variables. There are a few exceptions: certain details about the informant's language background are essential in order to utilize the information gathered under [1].

These considerations do not apply to the final sections of the questionnaire, dealing with subjective evaluation and linguistic attitudes. Once the variables have been brought forward for conscious discussion, the linguistic evidence on speech performance is considered contaminated, and in these sections, there is only the second purpose to consider.[1]

The interview situation

The details of the questionnaire can best be understood in the context of the larger interview situation. The first contact which the informant had with the interview was the letter shown on the following page. The American Language Survey was an ad hoc label which was used in all dealings with informants. [The linguistic interview will therefore be referred to as the ALS interview, and the survey which used this instrument, the ALS survey.]

The American Language Survey

Department of Linguistics

401 Philosophy Hall / Columbia University
New York 27, N. Y.

Within the next few days, one of our field workers will call to ask for an appointment to interview you or a member of your family. In this interview, which will take about half an hour, he will ask about words you use for some every-day objects, and some every-day situations. There is no test or examination involved here, for the words we are interested in are probably so natural to you as to be almost second nature.

We need your help because the answers to these questions are not to be found in any book: only you, who speak the language, can give us the information we need. Our work is tracing the every-day history of the American language, as it changes from one generation to the next. In the long run, it will help those who are learning to speak and write American English, whether it is their first or second language.

You may wonder why we are calling upon you in particular. Since we cannot hope to speak to every New Yorker, we must interview a sample from every neighborhood and every walk of life. The sample is chosen by computers from the census data; it is then vitally important that we speak to every single one of the families in this group. Otherwise, we would not have a true picture of the language of New York City.

Your help and cooperation will be deeply appreciated.

Yours sincerely,

The American Language Survey

William Labov

WL/bl

The need for such a letter was found early in the pre-testing of the interview, when the attempt was made to select households on a random basis, and it raises the question of the effect of the city dweller's attitude towards strangers upon the interview as a whole.

Without a preliminary letter, the number of refusals was relatively high, particularly for middle class subjects. Once the credentials of the interviewer were established, and his connection with Columbia University was set down in black and white, a great deal of resistance to the interview disappeared.[2] Yet the factors which gave rise to this resistance must also be considered to affect the degree of stylistic variation which occurred within the interview. In a small number of cases, suspicion of the interviewer remained to the very end, usually as a conviction that the entire procedure was an elaborate prelude to a sales effort. In the case of most respondents, residual suspicions evaporated after the first minutes of the interview proper, and a definite change in the informants' style of speech could then be noted.

In general, it can be said that suspicion of strangers is an important element in the psychology of the residents of the Lower East Side. There are three main elements in this attitude: [1] the fear of attack or robbery, [2] resistance to salesmen, and [3] general hostility to any action not in the immediate interest of the subject himself.[3] Despite these recurrent themes in the attitudes of New Yorkers,

7-5 it must not be assumed that they are a part of the make-up of all of the informants. In about one-half of the households visited, such resistance was not evident; on the contrary, the interviewer was welcomed from the beginning, and the subjects showed none of the fears and suspicions which were listed. These New Yorkers had the same open attitude towards strangers that we find in many small towns or rural areas. For example, in the study of Martha's Vineyard cited in Chapter I, none of the resistance to strangers which we find in New York City was present to any noticeable degree.[4] In New York, we face the problem of potential refusals in at least half the cases.

The ALS letter was effective in reducing refusals to about 20%. The figure would probably have been much lower if this had been a primary survey.[5] However, one must see the latent resistance to the interviewer as conditioning the nature of stylistic variation in many cases, and every effort must be made throughout the interview to overcome this attitude. Part of the effort is made by the interviewer himself; part of it is built into the design of the questionnaire.

In all but a few of the cases, the net effect of the interview was to reverse the attitudes of fear and suspicion, where they had existed. It appears as a general rule that people like to talk about language, and even towards the end of the interview, when they were asked to complete some difficult tests, their enthusiasm for the subject carried them

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forward. If suspicion may be said to dominate the first approach, then it is equally true that kindliness and good will held the upper hand at the conclusion. A number of informants who were willing to give only a few minutes at the outset, talked for hours in the final event. One may often judge the success of the interviewer in the long run by whether or not he was offered anything to eat or drink, and such hospitality is common even in the heart of inhospitable New York. [One of the minor laws of linguistic field work appears to be that the best informants bake the best apple pies.]

All of the interviews were tape recorded.[6] The initial effect of the tape recorder is usually to increase self-consciousness and the atmosphere of formality. Though this effect is sharply reduced as the interview progresses, it probably never disappears entirely. Even informants who seem to be speaking quite freely and spontaneously will sometimes interrupt themselves and say: "Is it all right if I--" pointing at the machine, or else say, "If you'll turn off the machine a minute, I'll really go into that . . ." However, such extreme cases are rare. The effect of the machine is usually to be interpreted as a constant but slight interference with the spontaneity of the proceeding. It is, of course, absolutely essential for a quantitative measure of the five phonological variables.[7]

Before the interview began, and many times throughout the interview, the informant was told that the survey was

concerned with natural speech, in every-day language, as opposed to the language of the school room. It was also stressed that there were no right or wrong answers to the questions asked, and that the only object of the questions was to find out how the informant talked in every-day life. This point of view was absorbed in varying degrees by the informants, and it was often necessary to correct the tendency of some informants to look to the interviewer for corroboration of their own replies.

The questionnaire

The complete form of the questionnaire is given as Appendix A. In this chapter, we will discuss the general structure of the interview in order to explain the function of the various sections. As noted above, each part of the interview had at least two purposes: first, to provide the context for a given style of speech, and second, to obtain the specific information proper to the questions themselves. Not all of this material will be utilized within the present study, though we will have occasion to refer to many specific items of content besides the phonological variables.

I. Language background. The questions of part I were designed to obtain the chief details of the informant's past life which would have the most bearing on his language. This information is essential, but it was also an appropriate

topic with which to begin the interview, since most of the informants were puzzled about the purpose of an interview about language. These questions were obvious enough in their intent to be reassuring, and the informant began to accept the fact that the interview was a genuine inquiry, and not an elaborate prelude to a sales effort.

Since the typical answers were quite short, this section also gives a fairly good baseline for the behavior typical of careful speech. The transcriber may use the tempo, pitch, and volume of this type of speech as a standard from which to judge any sudden change in later sections.

There were four specific aims in terms of content:

1. To obtain accurate information on the informant's age. The social survey had obtained the age of the informant as originally given by himself or someone else in the enumeration of the household. The year of birth as given in the ALS interview was usually a more accurate basis for the age of the informant, judging from the fact that it gave a greater age for many women. The history of residence and schooling was also helpful in confirming the age of the respondent.

2. To obtain accurate information on the informant's education. Like age, this is a topic which is apt to produce inaccurate replies. The social survey question, "How many years of schooling did you finish?" was often corrected by asking the informant to state what schools he attended, and where.

3. To place the informant in relation to the United States, New York City, and the Lower East Side. From the details on residence and schooling, and parent's background, it was possible to rate informants in all three of these relationships on the same scale:

4th generation	at least two previous generations born and raised in the area
3rd generation	at least one of the informant's parents born and raised in the area
2nd generation	both parents born elsewhere, but informant born and raised in the area
1st generation	informant born elsewhere, and moved to the area

a. informant moved to the area when 0-4 years old

b. " " " " " " 5-8 " "

c. " " " " " " 9-13 " "

d. " " " " " " after 13 years old

We now subdivide <u>d.</u> into the following three categories:

[1] informant has lived in the area more than 20 years

[2] informant has lived in the area 10-20 years

[3] informant has lived in the area less than 10 years

These categories will be essential in the decision as to which subjects will be accepted as native speakers, and in measuring the extent of exposure to the New York linguistic tradition.

4. To obtain information on the subject's use of a second language. The concept of <u>primary</u> and <u>secondary</u> language, based on the present usage of the speaker, is more

useful for this population than a classification based on the first language learned.

The primary language is defined as the one which the informant uses in every-day conversation with friends and family members of his own age. A secondary language is one used with an older generation, or in occasional use at home or with friends for whom it is a primary language.

In all cases within this study, the primary language is English. In many cases, the first language learned in childhood was Yiddish, Italian, Ukrainian or Polish. The great majority of informants learned English well enough before entering school so that it was their primary language when they first learned to read.[8] In many cases, the secondary language was still viable and was used in speaking to elderly persons.

II. Lexicon. A. Index of Linguistic Tradition. The first six questions in the lexical inquiry make use of the following regional markers of New York City English: cruller, pot cheese, on line [for more general in line], bunk into [for more general bump into], tumblesauce [for more general sommersault], and bellywop ['a face down sled ride' or 'a flat dive into the water']. These six items were selected from a much larger list used in the exploratory interviews, to construct a lexical index of the informant's connection with the traditional pattern of New York City speech.

In general, this section is designed as the beginning of a transition from the careful context of section I to the

casual context of section II. The order of the six items is arranged to begin with two ordinary objects and end with two items dealing with children's activities.

II. Lexicon. B. Children's words. The short answers for this section introduce the informant to the atmosphere required for section III of the interview and Stylistic Context A_4. These lexical items continue the inquiry into the elements of the New York City linguistic tradition; but since many informants have no experience with such games as marbles or skelley, these items are not suitable for a general index of linguistic tradition.

As the answers to most of these questions are quite short, there is usually no opportunity for casual speech to emerge in any useful quantity. However, if the explanation of the game of marbles, or the game of skelley, runs to any length, and has the channel cues requisite for casual speech, it is admitted as such in the subsequent tabulation.

In this section, the interviewer is freed from the responsibility of pursuing each question to its termination. Since the prime purpose of this and the next section is to build the stage for casual speech, and not to collect data on the lexical items, it would be destructive to question and probe an informant on all of the items without regard to his attitude. If it becomes apparent, from the first few questions, that the informant does not remember these childhood words, or does not wish to recall them, the interviewer passes on to the most central items of Section III. After a

series of negative replies, the interviewer usually assures the informant that these too are informative and useful. This half-truth does not, however, protect the informant from a sense of failure, from which his only genuine refuge may be the conclusion that the entire procedure is rather foolish and beneath his dignity. The interviewer's skill in sensing such an impasse and preventing it may preserve the possibility of casual speech emerging later in Section III.

III. Children's Lore. [Context A_4]. This section is divided into a portion designed exclusively for men, and a section primarily for women, but with some questions appropriate for men as well. The men's section covers rules for fighting, accounts of fights in childhood, and terminology for insulting individuals or groups. The women's section deals with childhood customs, rhymes, and special rhyming games.

Section III must be regarded as an instrument rather than a blueprint; the interviewer's purpose is to keep the informant talking within this context. Any speech with appropriate channel cues occurring in this section will be considered Style A, casual speech.

The most successful questions for eliciting casual speech were III B. 4 and 5, for counting-out rhymes and jump-rope rhymes. However, questions 1, 2, and 3 in that section were very effective in setting the emotional tone for natural delivery of these rhymes.

IV. Semantics and Syntax. A. Common Sense. This section marks a sudden return to the context of careful speech. The series of questions on the meaning of common sense, given in the questionnaire in Appendix A, are taken from a continuing study which has been conducted for several years.

There is a common core of denotation for the term common sense on which almost all users of American English agree. 'Common sense' is very close to good judgment; it is practical, every-day knowledge which is not acquired from books. But for some speakers, this use is extended to indicate a rare ability to apply knowledge in the rational solution of difficult problems; for others, it is an inborn ability to detect right from wrong; for still others, common sense is nothing else but what everyone knows, what you read in the newspapers, or the sense to come in out of the rain. The relations of common sense to morality, to intelligence in general, to education and to wisdom are all unresolved questions on which many people will disagree.

On the one hand, these questions give us valuable information on the intellectual attitudes of the informants, especially when placed against the background of four or five hundred such replies. On the other hand, this topic will interest more individuals than any other in the questionnaire. It is not uncommon for someone to say that he had just been discussing common sense with a friend, or with his wife, the night before. The semantics of common sense is also a rich

source for information on social and ethnic stratification, although most of the details go beyond the scope of the present study.

Those informants who felt that the discussion of children's lore was somewhat trivial, were permitted here to express themselves on one of the most central concepts of the American value system, and to measure their verbal abilities against an intellectual problem of unlimited complexity. At the same time, only a very few informants will feel inadequate to the challenge; the eleven questions in the series give them the opportunity to re-state their approach to common sense in several ways. At the end of this section, most informants have generated a great deal of interest in the interview as a whole, and are ready for questions which would normally produce very little response without adequate preparation. The interviewer is now in full control of the situation, and he must conduct the informant over the hurdles of the next questions with precise timing and strict attention to mood if he is to obtain the best results.

In contrast to Section III, the questions of Section IV are asked in the exact order and wording of the questionnaire. The rule from this point on was to keep one's eyes on the informant's face, avoid consulting any papers or checking the tape recorder, and convince the speaker by such total attention that what he is saying is profoundly interesting to the listener.

IV B. The danger of death. [Context A_5]. This question is introduced as if it were connected to the previous question, although there is little basis in the logic of the situation. The timing and delivery of this question is discussed in Chapter IV, under Context A_4, with examples of the type of replies which can be obtained.

IV C. The tying of a shoelace. In this sub-section, the informant's attention is turned to a formal task which allows us to test certain properties of his syntactic usage. The request, as phrased in the questionnaire, is for him to describe the tying of a bow, using only words. In previous investigations, this question sometimes met with resistance, but in its present location, and with the immediate background of IV A and B, all but one or two of the informants cooperated with a smile. For the great majority of respondents, the style utilized in this section is a very regular form of Style B--careful speech.

IV D. Definition of 'a successful man'. This question is introduced with a backward reference to the common sense discussion, as another term which people disagree about. Like the common sense question, it provides us with a great deal of highly stratified information on the semantics and value system of the informants. In many cases, replies to this question are quite long, but Context B always prevails and speech in this section is Style B.

At this point, the portion of the interview which

yields information on casual or careful speech is ended, with the exception of outbreaks of casual speech under Contexts A_1 or A_2 [speech outside the interview situation or to a third person.] Since a certain degree of conscious attention is now directed towards the five phonological variables, the careful speech to follow will not as a rule be used as evidence for the values of those variables,

V. Pronunciation. This section requires little comment, since the purpose and structure of most of the items have been discussed in Chapter IV. There are a great many lexical, phonemic and phonetic items in the two standard readings in addition to the five variables, but the present study will not take up most of these points. The chief purpose of this section is to obtain data on Styles C and D through the standard readings and the word lists--Contexts C and D respectively.

VI. Subjective Response Test. In this section, the subjective reactions of the informant to the five phonological variables are tested by the methods to be described in detail in Chapter XI. This test forms a distinct break in the procedure of the interview, for the interviewer stops tape-recording in order to play the test tape of twenty-two sentences spoken by Lower East Side residents. At the conclusion of the test, the interviewer replaces the tape for Section VII.

It was originally believed that it would be difficult to obtain complete results on Section VI from many informants,

especially those who had less interest in the discussion of language for its own sake. However, it was found that the response to Section VI was generally very keen, and the great majority of the informants--111 out of the 122 adults responding to the ALS interview--completed the test with strong interest.

Immediately after the completion of this test, the interviewer adds that he would like to find out how the informant sounds to himself. The informant listens to variant pronunciations of seven words, illustrating the variables (r), (oh), (eh), (th), (dh), in that order, and in addition, variant pronunciations of her and hurt. The respondent is asked to circle the number of the pronunciation which he usually uses on the form shown as VI C in Appendix A. This series forms the Self-Evaluation Test.

VII. Linguistic attitudes. At this point in the interview, the questions are less highly structured, and it is not required that they be asked in the exact order or wording given in the questionnaire. The fatigue of the informant may be relieved by a more casual approach. Any incident or opinion which bears upon the five phonological variables, or upon New York speech in general, is to be followed up by the interviewer to the limit that the time or the patience of the informant permits.

VIII. Index of linguistic insecurity. The final section of the interview is introduced as if an afterthought. Eighteen words are listed on the form shown in Appendix A, with each word followed by two numbers. The words are pronounced by the interviewer with two variant pronunciations, as noted in the questionnaire. The informant is asked to circle the number of the pronunciation which he believes is correct, and then check the pronunciation that he usually uses. All but one of the words appear in the text of the readings or the word lists, so that it is possible to compare the informant's earlier pronunciation with his present performance and preference. However, the principal purpose of this section is to give a rapid and independent check of the degree of linguistic insecurity of the respondent. The number of items in which the informant has checked one pronunciation and circled the other is counted, and this count forms the index of linguistic insecurity.

Interviewing several members of the household

Because we were interested in the children of the informants as well as themselves, there were many interviews in which a number of subjects were being interviewed together. The figures on the number of youth interviewed are given in the following chapter. Here we may comment upon the effect of this situation on the interview form and the execution of the questionnaire.

When a number of persons were present in an interview, the aims of the procedure were re-organized in the following manner:

1. To complete essential language background data for all present.

2. To obtain reliable information on the five phonological variables in all styles from the chief informant.

3. To obtain similar information from the oldest son or daughter of the informant.

4. To obtain subjective reaction tests simultaneously from all those present.

5. To complete content questions of questionnaire for informant first, then for oldest son or daughter.

This list does not describe the order in which the questions were taken, but the priority assigned to them in the discussion. If these prime goals could be achieved with a considerable amount of free discussion among those present, this was encouraged, and a large amount of casual speech was recorded under Context A_2. While it is true that the presence of other members of the family had the effect of reducing the comparability of these interviews with others in which only one person was present, it was felt that the gains were more than the risk. Because there were a large number of households in which children were interviewed--58 out of 122--we will be able to add considerable time depth to the survey in the discussion of differentiation of age levels in Chapter IX.

The interview form and questionnaire, as here discussed, was employed by two interviewers: myself, and Mr. Michael Kac,[9] of Haverford College, who worked on the project from July to September, 1963.

There were some significant differences in the speech and personal presentation of the two interviewers. The normal speech form of Mr. Kac, as used in the interviews, is an *r*-pronouncing dialect with vowels typical of upstate New York. Values of (eh) and (oh) are quite constant at (eh-4) and (oh-4) as opposed to my own (eh-3) and (oh-3). Mr. Kac's conversational style may be described as slightly more careful than my own. In personal appearance, he impresses respondents as a young college student. Despite such differences, his treatment of the questionnaire was quite close to my own, in both intonation and timing of the questions. It is sometimes difficult for a third person to tell from a tape which of us is interviewing.

The type of stylistic variation which emerges from tabulations of the interviews appears to be the same for both interviewers. The high degree of organization of the interview in terms of contextual styles is thus effective in standardizing the relative shifts of language behavior which occur.

In the following chapter, we will discuss the area and the survey in which this instrument was employed.

NOTES TO CHAPTER V

[1]There are a few exceptions to this rule, where a part of the original record was accidentally destroyed. In other cases, this material has been utilized for a special study of that type of speech which occurs when the informant is talking about speech.

[2]In one particular case, I knocked on the door of a tenement apartment to which no preliminary letter had been sent, and obtained only a brusque refusal from within. Several weeks later, I sent a letter to this subject, and when I called in person met with a cordial and cooperative reception. The respondent showed no signs of recalling the previous contact.

[3]The classic working class expression of this third attitude may be heard in the phrase, "Buddy, I don't know you from Adam!" A more abstract statement characteristic of some middle class attitudes is the question directed at one interviewer through the Judas hole of a cooperative [sic] apartment: "Will you please explain to me exactly what benefit this will be to me?" The more concise form, "I don't want to be bothered!" provides an unwitting benefit to the interviewer in the occurrence of the two most important variables in rapid succession. The lowest common denominator of this type of response, "I got no time!" has nothing to recommend it.

[4]The only refusal, in interviewing a hundred individuals on the island of Martha's Vineyard, was from a man who mistook my first inquiry as a request to speak to his wife.

[5]In about half of the cases where subjects refused to participate in the ALS survey, their experience with the previous social survey was given as a reason, although no connection between the surveys was indicated by the interviewer. Even informants who did cooperate would refer to the previous survey as if it had been completed only a few months before, when in reality it had been conducted two years previously. In some cases, they had found this first interview quite exhausting.

[6]Three tape recorders were used in various interviews. The Butoba MT-5, with the MD-21 microphone, was employed by one of the interviewers, Mr. Michael Kac. The author used the Sony 262L, with the RCA BK6B lavaliere microphone, for

two-thirds of his interviews. The remaining third of the interviews were recorded with the Nagra III, using the RCA BK6B microphone. The problem of noise is very severe in New York City, especially in the summer. The lavaliere microphone proved by far the best approach to this problem, better than a highly directional microphone tested, and was also useful in reducing self-consciousness of the informant. Results with the BK6B microphone gave more accurate perception of consonants when transcribing from tape than when listening in person; this was of course true in an even greater degree when the Nagra was employed.

[7]It is possible to note down the values of the five phonological variables, using specially prepared forms, as the informant speaks--but only if he speaks at a moderate speed or in short utterances. However, it is not possible to record any other information on content or associated variables at the same time. Our experience has also shown that such on-the-spot transcriptions are not as accurate for this data as transcription from a tape, taking approximately one and a half hours for each hour of conversation.

[8]Marginal cases are of special significance in charting the distribution of the variables, as discussed in Chapter VIII.

[9]Pronounced as homonymous with <u>cats</u> and <u>Katz</u>.

CHAPTER VI

THE SURVEY OF THE LOWER EAST SIDE

The material of the preceding chapters may be considered preliminary to the main attack on the question of the social stratification of language in New York City. In a first trial it was found that one variable, at least, showed regular stratification in the speech of department store employees. To study this question more systematically, a method of isolating contextual styles has been presented, as embodied in the questionnaire of the last chapter. We are now ready to discuss the application of this method to a representative sample of the speech community.

This chapter is concerned with the principal device for detailed study of the social stratification of New York City English: the survey of the Lower East Side. Although three other quantitative investigations of the language of New York City form a part of the present work, the survey of the Lower East Side is by far the most important. Information on the speech of 340 individuals was obtained in recorded interviews and written tests. The data now available, in the form of 150 hours of recorded conversation, 200 subjective reaction tests, and 200 self-evaluation forms, provide a large store of information which cannot be presented here in

full. Furthermore, the main part of the linguistic interviews rests upon a previous survey of the social position and attitudes of the informants, so that the amount of information available for analysis is almost double that collected by the linguists alone.

Bulk alone is no measure of adequacy: in this chapter, the planning of the survey will be discussed so that the reader can judge to what extent it gives good representation of the various sections of the population of the Lower East Side. We will consider the selection of the area; its social and geographic characteristics; the construction of the questionnaire and the methods of interviewing; the method of sampling and the results of the interview program; methods of sampling the non-respondents; and finally, the various sources of error within the entire procedure.

The selection of the area

Some of the reasons for choosing the Lower East Side of New York City for the study of the social stratification of language were stated in the opening chapter. As indicated there, most of the previous studies of New York City speech had used a small number of speakers, and relied heavily on college students. The Lower East Side is weak in the representation of the upper portions of the city's social structure, but it has a good section of the larger groups: middle class, working class, and lower class New Yorkers. Further-

more, all of the city's main ethnic groups are represented well: Italians, Jews, Irish, Germans, Ukrainians and Poles, Negroes, and Puerto Ricans.[1] None of the "ghetto" areas such as Harlem or Bedford-Stuyvesant would have allowed us to find representation of all these groups in a single neighborhood, any more than we would have obtained a cross section by studying Washington Heights or Jamaica. The original pattern of the Lower East Side as a port of entry, with movement in one direction in and out of the area, has now been broken by the construction of many large city housing projects. We therefore have a good representation of New Yorkers from other parts of Manhattan, including Harlem, and other boroughs as well.

The interaction of the various ethnic and social groups will be an important part of the pattern on the Lower East Side; whether or not this interaction tends to weaken and dilute the pattern of speech that governs more homogeneous areas is a point which must ultimately be examined. From the point of view of housing, the Lower East Side represents current trends in the city quite well: it has large tenement areas, large blocks of lower income projects, and also large blocks of middle income cooperative apartments. Finally, there remains the fact that the Lower East Side has been one of the most important points of entry for new immigrant groups. This pattern has held true for the successive arrival of the Irish, the Italians, the Jews, the Ukrainians, Poles and Russians. Only recently has this section become a second

neighborhood for many New Yorkers, as Negro, Puerto Rican and other newcomers move in from other parts of Manhattan.[2]

Thus in the Lower East Side, we are conscious of rapid social movement, with second and third generation citizens moving out and upward in a continuous stream, while new groups take their place from outside. Those who do remain are often marked by either a strong sense of local tradition, or total inertia. This process enables us to test the proposition, often stated, that the native New York City pattern of speech can absorb a tremendous bulk of foreign influence without being seriously transformed itself. At the same time, the dilution of native speakers with immigrants proves to be a serious problem in the economy of sampling native speech, and must be considered a drawback of this particular area.

Shortly after I began exploratory interviews in the Lower East Side, in the summer of 1962, I learned that a comprehensive survey of the area had been conducted the year before as a preliminary to the Mobilization for Youth Program.[3] Mobilization for Youth is a large-scale assault on the problem of juvenile delinquency, supported by federal funds as well as local incentive. It aims to change the opportunity structure in which the young people of the area are placed, taking as its unifying principle the hypothesis developed by Cloward and Ohlin:[4]

> the kind of opportunity structure in which young people find themselves is the central condition determining their behavior, either conforming or deviant.

The research design for this project was constructed by faculty members of the New York School of Social Work of Columbia University. Among the first steps, as described in the MFY Proposal, was the establishment of a base line for all future studies through three community surveys: of adults, adolescents, and leaders of local organizations. I first turned to Mobilization for Youth for information about the community. The members of the research staff of the New York School of Social Work showed a great deal of interest in the proposal for a survey of the distribution of language features in the area, more so than the naive linguist might have expected.[5]

As the complexity of conducting a social survey of the area unfolded, it was apparent that I could not hope to approach the precision of the MFY sampling technique by my own efforts. For example, the preliminary mapping of the neighborhood, in which each dwelling unit was given a serial number, occupied four months of the MFY schedule.[6] It was suggested that I not only use the demographic data of the MFY survey, but also re-interview the same informants. This would not only solve the sampling problem, but also enable me to emphasize certain sub-groups that were of particular interest, without distorting the over-all view of the composition of the population. The wasted effort that would be involved in pursuing hundreds of informants who later turned out to be recent immigrants, would also be avoided. Most importantly, I would then have a rich store of information on the infor-

mants' social position, their social attitudes and aspirations, and their relations to the community. All of my own interview time could then be devoted to linguistic behavior.

Exploratory interviews on the Lower East Side were carried out in 1962; altogether, some seventy individuals and many groups were interviewed while the questionnaire was being developed and pre-tested. In November, 1962, a rapid survey of the social stratification of (r) among department store employees was carried out, as described in Chapter III. The actual field work for the linguistic survey of the Lower East Side began in July, 1963. Before discussing the procedures of this field work, it will be necessary to describe the methods and operations of the social survey on which it is based. [In the discussion to follow, the Mobilization for Youth Survey will be designated the MFY Survey; the linguistic survey will be referred to as the ALS Survey, since the ad hoc name of the American Language Survey was used in all dealings with informants.]

Procedures of the MFY Survey

The social survey of the Lower East Side had been carried out with every precaution against bias and inaccuracy which is available to survey methodology. Such precautions were particularly necessary in this case because many of the people that MFY was most anxious to reach are not the easiest subjects to interview. Many are seldom found at home, or live

with families other than their own. A certain number of urban dwellers are also suspicious and hostile to strangers in general. It would therefore have been easy to conclude a survey which failed the general task of describing all sections of the population, unless rigorous methods were followed at all stages of the work.

Considerable attention was given to the initial enumeration of all dwelling units in the area.[7] Many months were spent in the exact determination of the number of dwelling units, vacant and occupied, in each building, yielding a serial listing of 33,932 units in which informants might be found. It was considered that a simple random sampling might not give adequate representation to some of the smaller ethnic groups concentrated in a particular neighborhood. Therefore a stratified random sampling procedure was employed: the list was divided into 250 equal intervals of 133 units, and five households were randomly selected from each interval, yielding a sample of 1,250 households.

A corps of forty interviewers was trained in the procedures of the MFY survey. The first task of the interviewer was to locate the occupants of the household, and enumerate each member by age, sex, and relation to the head of the family. Then, by a second random process, one of the adults over 20 was selected to be interviewed. Strenuous efforts were made to reach even the most inaccessible informants; in many cases, the field worker had to call six or seven times before finding the person in. If the subject refused, an

interviewer of the same sex and ethnic characteristics as the subject sent a second introductory letter, and called in person. Persuasion by letters from prominent ministers and community leaders was sometimes effective.[8] Special attention was paid to Italian and Negro groups, where the greatest number of refusals was found. A total of 988 interviews or 79% of the target sample, was obtained. The final refusal rate was approximately the same for all ethnic groups except Puerto Ricans, who were noticeably more cooperative.

The MFY interview combined pre-coded questions with free-answer, open-ended questions. Many of the questions on social attitudes were drawn from well-tested batteries developed by the National Opinion Research Center, and others were specifically designed for Lower East Side problems. The field worker wrote down everything that the informant said, verbatim. The entire interview lasted from an hour to two hours; in some cases, the effects the resulting fatigue remained to become an obstacle to the completion of our own survey of the same informants.

The content of the MFY interview falls into a number of large divisions: attitudes towards the neighborhood, social aspirations, relations with settlement houses, participation in community organizations, and attitudes towards juvenile delinquency. [The complete questionnaire is given in the MFY Proposal, Appendix R-3.] Much of this material will eventually be related to the informant's linguistic behavior, but the chief items of demographic information and

background data that are of immediate use for the linguistic survey are listed below:

Language in which the interview was conducted[9]
Sex and marital status
Age
Race
Religion
Family income
Education of respondent
Education of spouse
Occupation of respondent
First occupation after leaving school
Occupation of spouse
Father's occupation
Country of birth
Father's country of birth
Number of years on the Lower East Side
Region or New York borough of previous residence
[for those who have lived on the LES 5 years or less]
Newspapers read

A view of the Lower East Side

From the results of the MFY survey, we can construct an accurate view of the neighborhood in which the linguistic survey was to take place.[10]

Figure 1 shows the Lower East Side of Manhattan in relation to the island as a whole, and Figure 2 is a detailed map of the section which has been surveyed. On the north, it is bounded by 14th Street, on the east by the East River, on the south by the Brooklyn Bridge. The western boundary begins with Avenue B, in the northwest corner, and follows the line indicated down Clinton St., Rivington St., Grand St., East Broadway, and so down to the Brooklyn Bridge.[11] This is only a part of the area traditionally known as the Lower East Side, which itself has no strict boundaries, like most of the

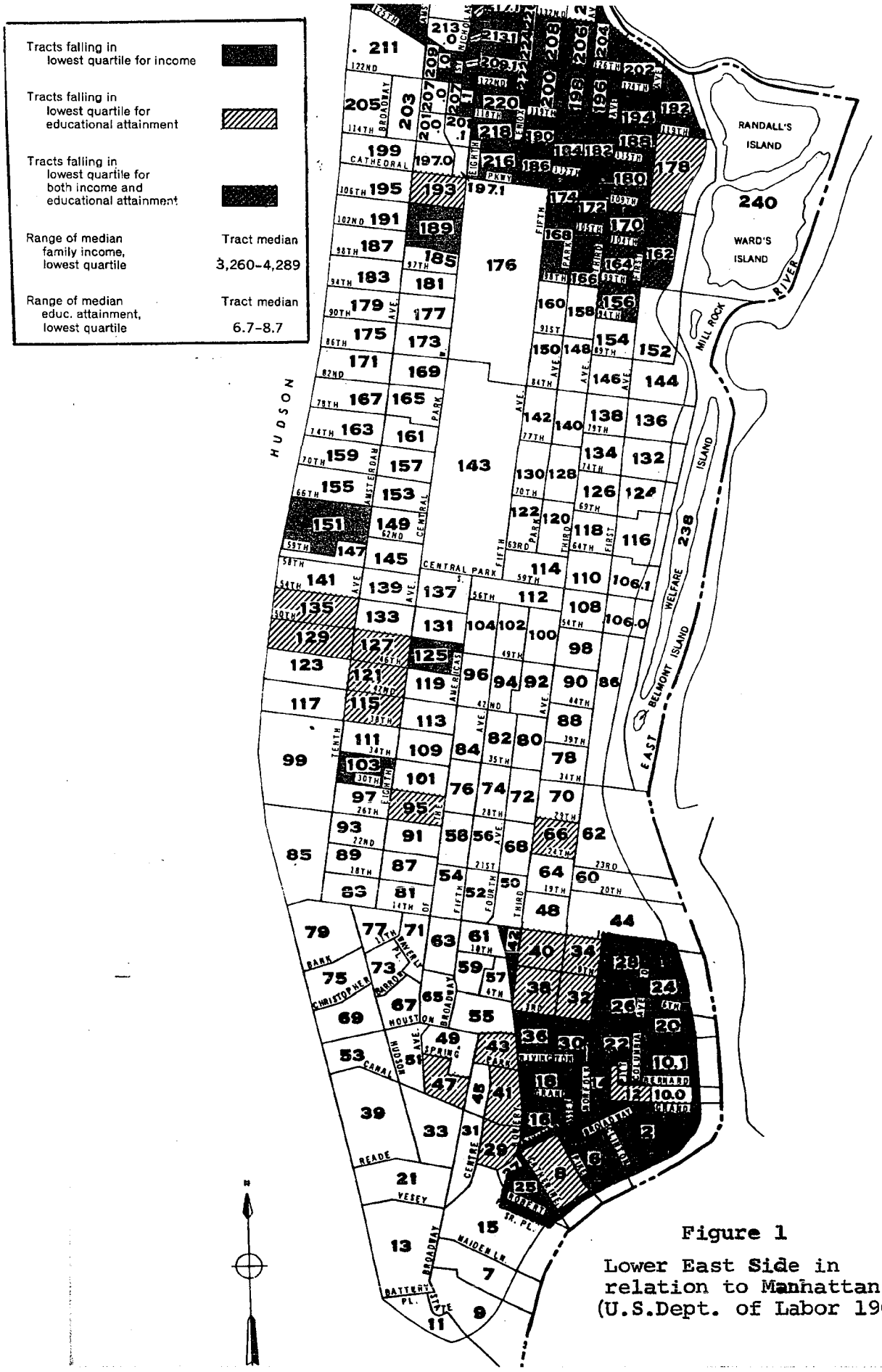

Figure 1

Lower East Side in relation to Manhattan (U.S.Dept. of Labor 1963)

Figure 2
Detailed map of the Lower East Side
(Survey area outlined in black)

VI-12 New York City neighborhood terms.

The most obvious characteristic of the Lower East Side, as we walk through it, is that it consists of two radically different kinds of buildings--tenements and housing projects. The projects in turn may be divided into low income public housing projects, and middle income cooperatives. Most of our middle class subjects live in the latter, which are concentrated in a relatively small area where Grand Street meets the East River.

There are four middle-income cooperatives, and one private project in the area. There is little that need be said to describe these projects: some are becoming a little dark and dingy as they age, but most of them are comfortable, and a few are as well designed and as handsomely located as any apartments in New York City. The Corlears Hook project, on the East River, is attractive enough to hold a good many citizens with moderately high incomes, and who might otherwise have left the East Side entirely.

Another type of project is the low-income apartment house, under public administration, such as the Jacob Riis Houses or Lilian Wald Houses along the East River. Most of these are thirteen-story elevator apartments. The hallways are tile and concrete, and regularly scrubbed with detergent and disinfectant. The apartments are usually quite spacious, with plenty of light and air, and some of them have a spectacular view of the Brooklyn Bridge and the East River. The public housing projects were integrated at the outset, as a

deliberate policy, so that Negro, Puerto Rican and white residents are brought into close proximity. Though caste distinctions are not abandoned, they are far weaker in the low income projects than elsewhere, and most of the children I interviewed have some friends in all three racial groups.[12]

Attitudes towards the low-income projects vary according to the position of the observer. For some, they resemble nothing so much as a prison. It is true that there is a terrible sameness, an anonymous stolidity which New York City imposes upon its poorer citizens. The regulations of the management are all-encompassing: pets, bicycles, and walking on the grass are repressed with equal severity. The shops, candy stores, bars and store-front churches which make the tenement areas so much more lively, are all missing here. But for those who have lived in the tenements, the projects are a great step upward. They are clean, light, and spacious as compared to the tiny tenement apartments. For young people, there are excellent playgrounds, basketball courts and athletic fields in the immediate neighborhood.

It is the tenement apartment which is difficult to describe, and hard to imagine for those who have not lived in one. It is located in a stone or brick building of three to six stories, usually in the worst possible condition. Hallways are dark, narrow and dirty. Stairs are the only elevators. In the worst of the tenements, garbage is thrown down the stairs, and rats gather in the night, gnawing their way into the kitchens and bedrooms for the little food that

can be found there.

The tenement apartments usually consist of one to three small rooms in a straight line, barely furnished and totally neglected by the landlord.[13] The smell of garbage and urine which pervades the halls can creep into the homes of the cleanest housekeepers. The contrast between living in a tenement house of this type, and in the best of the middle income apartment houses, illustrates the full range of stratification in the society of the Lower East Side.

Table 1 shows the number of each type of housing units, and the percentage distribution in the area.[14]

TABLE 1

HOUSING UNITS ON THE LOWER EAST SIDE

Type of Housing	Number of Units	Percentage
Tenements	18,903	55.7
Public housing projects	10,729	31.6
Middle-income cooperatives	2,715	8.0
Private middle-income project	1,585	4.7
	33,932	100.0

The view of the tenements presented above is not itself a scientific appraisal. Lacking this, we may follow the Bureau of the Census in defining substandard housing as housing that does not have hot water, cold running water, private bath, or private toilet, or that which is deteriorating or dilapidated. We then find that 62.4% of the tenements are sub-standard.

Population. The 1960 population of the Lower East Side area we are studying was 107,000. One may be surprised to learn that this figure shows a steady decline since the peak population of 1910, when 300,000 people lived in the same area. Of the present day total, 27% are Jewish and 11% are Italian. Ukrainian, Russian, Polish, Irish and other ethnic groups make up the rest of the population of European stock, which accounts for 63% of the total population. The Puerto Rican group is 26% and growing. The Negro population is 8%, and other nonwhite, largely Chinese, are 3% of the total.

As far as the distribution of these groups in the area is concerned, an informal picture might be sketched as follows. In the tenement area north of Houston St., the blocks are sharply stratified: some streets have a high concentration of Slavic groups, while others have more Jewish residents; in a few areas there are still quite a few of the older Irish people left; some blocks now have a great concentration of Negro people, and an increasing number of blocks are predominantly occupied by Puerto Ricans.

The public housing projects are mixed, and the middle income projects have a high percentage of Jewish residents. A large percentage of Italians are concentrated in the lower end of the district, on Henry St. and Madison St., although an increasing number of Puerto Ricans are now living in that area. The Chinese population is in the southwest corner, where Chinatown is expanding across East Broadway and up into former Italian neighborhoods.

VI=16 The Lower East Side seems to have a disproportionately large number who have lived in the area either a very short time or a very long time, with a smaller percentage in-between.

TABLE 2

LENGTH OF RESIDENCE IN THE LOWER EAST SIDE

	Percent
Less than 5 years	22
5-12 years	30
13-29 years	17
30 years or more	30
	99
	[N: 988]

The newcomers seem to be of several distinct types. The main body is the Puerto Rican group, coming directly from Puerto Rico. There are also Negro people from Harlem, and a young white bohemian group moving across the island from Greenwich Village. This latter group provides the largest part of the very small White Protestant element in the population. The bohemians, students or intellectuals, are mostly from outside the city. They move quite rapidly from one residence to another, and have little connection with the community around them, except in so far as some are beginning to build a community of their own.

The results of the MFY survey show that this area is depressed as far as the education, incomes, and occupations of its residents are concerned. Compared to the United States as a whole, the Lower East Side is shifted very considerably towards the

lower end of each of these scales. When the figures for the 1950 Census, which were used in this part of the MFY report, are replaced by national figures from the 1960 Census, the low position of the Lower East Side is even more marked.[15] The comparison is even more extreme when we compare the Lower East Side with other urban areas, or with the New York metropolitan areas, for in most respects the New York region ranks higher than the nation as a whole. The final view of the incomes of the Lower East Side shows that only 28.3 of Lower East Side households rank above the nation's median in family income, while 71.7 are below the median.

The information that has been presented on the Lower East Side is a view of the community as a whole in which the informants for the linguistic survey live. More detailed figures on occupation, education, income and other social parameters are not relevant, because these figures from the MFY Survey do not describe the target population for the present study. We wish to consider only the native English speakers of the area in order to investigate the structure of New York City English. The original sample of 988 Lower East Residents will then be reduced to a much smaller number. Since many of the non-native speakers are lowest in the various socio-economic indexes, we can say that the population we will study is not characterized by such low values as the original sample. The method for selecting the group to be interviewed for the ALS survey will now be outlined, and the description of this group by social and economic characteristics will then follow.

VI-18 The ALS Survey population

Of the 988 MFY informants, 280 were identified in the data as Puerto Rican. Although this group is extremely important for the social study of the area, and eventually for its linguistic character, it contains very few adult speakers, over 20 years old, who grew up in this country with English as their native language. The Puerto Rican group was therefore not included in the target population of the ALS Survey.

Thirty other informants were identified as neither white, nor Negro, nor Puerto Rican. This small group is primarily Chinese, and was also excluded from immediate consideration. Subtracting other miscellaneous categories, we have 617 respondents. For sampling purposes we divided this group into four categories: Negro, Jewish, Catholic, and White Protestant [hereafter referred to as "Protestant"]. The large Jewish group may be divided in turn into two halves: the Orthodox and the Conservative or Reform sub-groups. As far as the distribution of native English speakers and of social classes, these two sub-groups are quite different. The Catholic group may be further subdivided into its main components: Italian, Slavic, and others. However, it is perhaps not large enough to demand sub-division at this first stage.[16]

For the first approach to the sample, then, it may be useful to consider five main groups:

Negro		85
Jewish:	Orthodox	174
"	Conservative or Reform	100
Catholic		211
Protestant		47
		617

For further analysis, it will be useful to look at the socio-economic characteristics of this group. For this purpose, we will use a ten-point socio-economic index developed by MFY, combining three objective characteristics--occupation, education, and family income--into a single linear scale. The general considerations behind this procedure, and the detailed steps involved, will be discussed in the following chapter, which deals with the class stratification of the five variables. For the moment, we may consider the scale as a useful device for dividing the population along the socio-economic scale into three units of approximately equal size. The purpose of such divisions is to ensure that we will have sufficient representation for all of the major groups listed above in an upper, middle and lower socio-economic category. If one sub-group is particularly weak, it will be possible to adjust the percentage of sampling so that we will have enough informants in that sub-group to give us an accurate report on its speech as a whole. Since the limited resources of the ALS Survey did not permit study of the entire group of 617 speakers, or even all of the native

speakers in this group, some such adjustment in percentages studied would yield the most efficient procedure.

This adjustment would have been impossible in a primary survey, where the population and its major breakdowns was unknown. Any concentration on one type of informant in place of another would yield a biased analysis of the population, and it would be impossible to see the finished result as representative of the population as a whole. But with a secondary study, the effect of stratified sampling [using such adjusted percentages] does not interfere with the reconstruction of a representative statement about the whole population. The final statement is corrected by a weighting of the values for each sub-group, which is the inverse of the original bias.

We therefore divided the socio-economic scale into three sections: 0-2, 3-5, and 6-9. The totals for the resulting fifteen divisions are shown as the first column of Table 3.

The decisions as to the final percentages of each subgroup to be studied were not made immediately. Since the Protestant group as a whole is very small, 100% of these informants were studied. A similar consideration applied to the Negro group.[17] For the remaining groups, 50% were randomly selected. The native speakers were first determined by consulting the MFY questionnaire on place of birth, and we began to interview these. It soon appeared that the majority of the lowest socio-economic group for Jews and Catholics

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TABLE 3

DERIVATION OF THE SAMPLE POPULATION

Ethnic Group	Class Group	Total MFY Population	Part of MFY Pop'n Studied	Native Speakers	Moved or Died	ALS Target Sample	Total ALS Interviews	ALS Linguistic Interviews	ALS Television Interviews
		Column							
		1	2	3	4	5	6	7	8
Negro	0-2	32	32	29	6	23	16	14	2
	3-5	36	36	31	10	21	19	16	3
	6-9	17	17	16	11	5	5	5	-
		85	85	76	27	49	40	35	5
Jewish, Orth.	0-2	71	71	14	4	10	8	8	-
	3-5	55	38	13	3	10	10	9	1
	6-9	48	48	22	8	14	11	6	5
		174	157	49	15	34	29	23	6
Jewish, Cons. & Ref.	0-2	25	25	9	3	6	4	3	1
	3-5	35	21	14	4	10	8	7	1
	6-9	40	40	35	13	22	18	12	4
		100	86	58	20	38	30	22	6
Catho-lic	0-2	72	72	36	11	25	18	11	7
	3-5	102	69	41	17	24	19	15	4
	6-9	37	37	27	11	16	13	8	4
		211	178	104	39	65	50	34	15
Prot-estant	0-2	7	7	4	0	4	4	3	1
	3-5	13	13	6	6	0	-	-	-
	6-9	27	27	15	10	5	5	5	-
		47	47	25	16	9	9	8	1
		617	553	312	117	195	158	122	33

were foreign-born. It also appeared that a great many of the upper socio-economic group for Jews had moved in the interval between the MFY Survey and the ALS Survey. [The upper Catholic group was relatively small.] To compensate for this loss, 100% of the upper and lower groups were selected for all five ethnic divisions. The percentage of the intermediate group, actually the main body of the working class, was gradually increased by random selection until the maximum which could be handled in the available time for field work had been reached. This figure was 67% of the 3-5 group.

Column 2 of Table 3 therefore shows 100% of groups 0-2 and 6-9 selected, 100% of the Negro and Protestant 3-5 group, and 67% of the Jewish and Catholic 3-5 group. From this total population of 553 informants studied, the non-native speakers are to be subtracted.

Selection of native speakers

All those MFY informants who had been born in a foreign country [including Ireland, England, and the West Indies] were excluded as not being native speakers, unless they had come to the Lower East Side before they were eight years old.[18] The reason for including those who had come to the United States early in life is that the inclusion of a certain number of marginal native speakers in the survey will ultimately show a great deal about the directions in which native

speech is moving. It was expected that such marginal speakers would show up in the final analysis as deviant types in some ways. The age of eight was selected as a cutting point because it represents the half-way mark in the establishment of native dialect characteristics [posited here as the years 4-13]. If the speaker had marked foreign characteristics in his English, and fell into this marginal category, he was rejected from the sample.

Column 3 of Table 3 shows the number of native speakers who remained as eligible informants for the ALS study. The total is 312, a bare 56% of the 553 cases in Column 2. The distribution of native and non-native speakers by ethnic group and by socio-economic group is shown in Table 4 below.

TABLE 4

PERCENTAGE OF NATIVE SPEAKERS FOR SEVERAL ETHNIC AND SOCIO-ECONOMIC CLASS GROUPS

Ethnic group		
Negro		91
Jewish		41
Orthodox	30	
Conservative	68	
Catholic		59
Protestant[19]		77
Socio-Economic Class Group		
Lower Class 0-2		44
Working Class 3-5		58
Middle Class 6-9		74

The steady rise in percentage of native speakers with class is a reflection of the general upward movement of the population of immigrants and their children. The low point on the scale of native speakers would be represented by lower-class orthodox Jews. Of the 71 such informants in the MFY survey, only 14 were native speakers. Since four of these had moved or had died, this left only 10 for the ALS Survey. Fortunately, we succeeded in interviewing eight of these speakers, and so obtained a fairly good view of the speech pattern which they represented.

The shift in the composition of the survey population as a result of eliminating non-native speakers, also eliminates much of the difference between the Lower East Side and other areas as far as occupation, education and income are concerned. Before we consider the detailed characteristics of the native population, it must be noted that it was not possible to study the entire group of native speakers. In the two-year interval between June of 1961 and June of 1963, eight informants had died or become incapacitated,[20] and 109 had moved, leaving only 195 informants on the scene. The 35 per cent who had moved in two years represent a comparatively high rate of mobility, characteristic of an area which is undergoing rapid social change.

In the initial statement of the reasons for choosing the Lower East Side, it was indicated that this choice did not represent a retreat from the problem of variability among New York speakers. On the contrary, the mixture of ethnic

groups and social classes, of native and non-native speakers, of mobile and stationary groups, should show us all of the factors which have led to the theoretical problems of linguistic structure outlined in Chapter II. To a lesser or greater extent, these mixtures have been characteristic of the city as a whole for all of its recent history.[21] Therefore, if we can demonstrate a coherent and systematic structure for the speech pattern of this neighborhood, we can expect that even less difficulty would be found in more homogeneous sections of the city. The question as to whether the information to be presented in the following chapters represents the speech of the city as a whole, or merely this neighborhood, will be considered in detail at a later point.

It is important to characterize the groups which had moved, in order to see in what way the sample of 195 does or does not represent the original population of native speakers which was present on the Lower East Side in 1961. The social characteristics of the moved population are presented in detail in Appendix C, on Analysis of Sampling Losses Through Moving. We find in this analysis that the ethnic composition of the population, and the proportion of men and women, are not distorted by the loss of the 109 subjects who moved in the two-year period. There is a serious class bias, since the highest ranking groups showed the most tendency to move, and the lowest ranking groups the least tendency. Our analysis of the possible effects of this loss, as given in Appendix D, indicates that the social stratification of our

present sample is probably a minimal stratification, since those middle class subjects who left showed a greater tendency to differentiate themselves from the Lower East Side working class than those who remained.

The ALS sample population

The target population of the ALS study was all those native speakers of the Lower East Side who had lived in the area for at least two years prior to the ALS Survey. The sample which was to represent this population was a group of 195 individuals, who may be termed the ALS sample population.

These 195 individuals represent 100 per cent of the lower class and middle class section of the original population, 100 per cent of the Negro working class, but only 67 per cent of the Jewish and Catholic working class. They have therefore been selected from a larger group of 221 native speakers who had not moved [if the percentage of moving in the one-third of working class speakers not studied was the same as that two-thirds which was studied.] Since the MFY Survey described a population of 33,000 households and 100,000 individuals we can say that our present target population consists of approximately 8,000 households and about 23,000 individuals.

The interviewing of this population began in July, 1963, and was largely completed by the middle of September. The final portion of the interviews, about one-fifth, was

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obtained in October and November of 1963. A total of 158 of the 195 subjects were interviewed, representing 81 per cent, although full information was obtained from only 122, or 63 per cent. The fifth column of Table 3 shows the numbers of ALS informants in the sample, and the sixth column, the total number who were interviewed.

These interviews were of two types. The main designs of the program were embodied in the linguistic interview described in the previous chapter, the ALS interview. The 122 ALS interviews were supplemented by 33 short interviews with informants who refused the linguistic interview, or who could not be reached for the longer interview. This short interview, which obtained data on the five phonological variables for Style B only, is described in the following section of this chapter as the ALS television interview. With this device, it was possible to reduce the margin of unknown subjects by half, and obtain information on informants who could not otherwise be reached; the group of 33 television interviews contains a large proportion of the refusals, and a number of those who would otherwise be labelled as "can't reach."

It would have been possible to obtain a higher percentage of ALS interviews if the sample population chosen had been a smaller part of the eligible MFY subjects. However, the two field workers for the ALS had to work at maximum efficiency if they were to obtain one-eighth of the total number of interviews which were gathered by the forty MFY

field workers. It was necessary to keep a list of thirty or forty active prospects in hand to obtain three or four interviews a day, and avoid the long and inefficient period of following up the last few names on a list. Since a total of at least one hundred and twenty linguistic interviews were felt necessary to study social variation across several class strata and ethnic groups, it was decided to expand the number of individuals in the sample population to cover the percentages noted above. This approach yielded 122 ALS interviews, at 63 per cent of the sample population; the program was brought to 81 per cent of the sample through the use of the shorter television interview.

It is not claimed that two field workers can within a short time equal the results of a large staff of the social survey, neither in the reduction of error nor in the quantity of reliable material gathered. However, it is likely that most linguistic studies will be carried out with such limited forces, and techniques for making the most efficient use of them are important to consider. If the type of behavior which was being studied was similar to most forms of behavior that are investigated by social survey, the value of the study could be measured by how far it fell short of the MFY standards. However, linguistic behavior is far more general and compelling than many social attitudes or survey responses. The primary data being gathered in the ALS interview are not subject to the informant's control in the way that answers on voting choices would be. The discussion at the end of

Chapter IV demonstrated this point. In studying both linguistic differentiation and linguistic evaluation, we are going beyond the self-conscious answers of the informant, to a type of behavior which he is largely unaware of.

In Chapter IV, we found that from 10 to 20 instances of a given variable were sufficient to assign a value that fits consistently into a complex matrix of stylistic variation, while at the level of three or four instances, fluctuation unrelated to the matrix was noted. Similarly, we will find that from ten to twenty individuals will give us a value for a social class which fits consistently into an overall pattern of stratification, while groups of four or five show unrelated fluctuation. In the case of (r), it will be possible to divide a group of 81 informants into six strata which are clearly separated in the same order for five stylistic levels. Thus we see that numbers which might be totally inadequate for the study of attitudes, say, towards racial segregation, with the associated reluctance to give a straightforward personal response, are quite adequate for the study of the phonological variables.

Many of the ALS informants would refer to the earlier MFY Survey, although we stated no connection with that survey. One woman commented, "They asked me a lot of questions about segregation. Gee! I hope I said the right thing!" While the social scientists are aware of such biasing factors, they must overcome them by subtle comparisons of large numbers of speakers under varying conditions. The bias of an attitude

towards correctness is equally strong in the linguistic interview, but the means for analyzing it are contained within the interview itself. Chapter IV discussed the methods by which this very bias is utilized for the study of linguistic structure. Thus the linguistic interview, as shown in the examples of Chapter IV, contains four to five hundred pieces of information on the main phological variables alone, more than the total number of items in the entire social survey. This large quantity of information is so organized that the resulting values of the variables are more regular than the individual's answers to a single question of the social survey. They are more comparable to a very large battery of questions on a single topic, yet it would be impractical to construct a battery of a hundred questions to achieve the same regularity.

Of the 122 ALS interviews, 20 were carried out by Mr. Michael Kac, and 102 by myself. Of the television interviews, two were conducted by Mr. Kac, and 31 by myself.

The ALS television interview

The ALS television interview was designed to obtain information on the use of the five variables by non-respondents. It was originally designed for those who refused the regular ALS interview, and was afterward applied to give information on the speech of those who could not be reached within the time allotted for field work.

In the case of those subjects who did not have telephones, or whose telephones were not listed, the ALS television interview was conducted in person. If the subject had refused previously a request for an interview by one interviewer, the ALS television interview was conducted by the other interviewer. For those subjects whose telephones were listed, the television interview was conducted by telephone.

The full form of the ALS television interview is given in Appendix D. In the first half of the interview, we asked the subject questions about the quality of the television picture he was receiving for various channels. This subject was chosen as the one likely to obtain the maximum percentage of response from those who had refused the regular ALS interview. Each of the questions was designed to elicit at least one example of a particular variable.

> Which channels give you the best reception? the worst? which do you watch the most often? the least often?

From these questions, we obtained examples of (r) in <u>four</u>, (th) in <u>thirteen</u>, and two auxiliary variables to be discussed in Chapter X: the vowel of <u>nine</u>, and the first vowel of <u>thirteen</u>.

For the variable (eh), which frequently does not occur in short conversations, we elicited the word <u>bad</u>.

> Would you say that this condition was <u>very</u> bad, or <u>not so</u> bad?

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It was necessary to use the word bad in our question in order to obtain a uniform response. The effects of influencing the respondent were minimizing by laying heavy stress on very and not so, and slurring over the word bad so that it was not clear which value of the variable the interviewer was using. The actual value used was (eh-3).

For the variable (oh), the following question was used:

> At two o'clock in the afternoon, would you say that your television set was usually on, or off? at four o'clock? at ten in the morning? etc.

Again, the bias produced by using the word off was reduced by giving it only tertiary stress. The value of (oh) used by the interviewer was (oh-3). The questions were continued until several clear instances of (oh) were obtained.

The value of (dh) was obtained from the many examples which occurred naturally throughout the interview.

In all but a few cases, the technique shown was successful in obtaining the desired forms. In addition to these deliberately elicited values of the variable, a great many others were obtained throughout the television interview. This technique assured that each variable would be represented by at least some examples.

The second half of the television interview was designed to obtain as much conversation from the subject as possible. The questions concerned opinions about programs, commercials, and the effects of television upon children. In a few cases, it was possible to obtain information on the

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subject's background by the line of questions indicated at the end of the questionnaire.

The technique of the second half of the interview was successful in obtaining large samples of the speech of most subjects. Even those who had rejected the ALS linguistic interview most abruptly, would talk freely in response to the television interview, for as long as fifteen minutes. For example, one subject refused the ALS interview, referring to the earlier MFY interview, and categorized the ALS letter as "ridiculous nonsense." He responded quite vigorously to the television interview, which lasted almost fifteen minutes. We obtained 23 instances of (r), 11 of (eh), 8 of (oh), 11 of (th), and 45 of (dh), more than enough to give us an accurate view of his treatment of the variables.

Only one subject refused the television interview, and in so doing, gave us reasonable information on her treatment of several of the variables.

Of the 27 subjects who refused the regular ALS interview, we succeeded in interviewing 16 by the television interview. Of 46 subjects who could not be reached in the time allotted for the field work, 17 were interviewed by this method. Thus of the 73 persons who were not reached for the linguistic interview, we succeeded in obtaining good evidence on the language behavior of 33.

The validity of the television interview is affected by the fact that most of the interviews were conducted over the telephone. The losses in sound quality must be assessed

VI-34 as a factor in these results. It is also necessary to determine which stylistic context the television interview represents. For this purpose, ten subjects randomly selected from those who had already been interviewed by the regular ALS interview, were re-interviewed with the television questionnaire. None of these respondents suspected any connection with the original linguistic interview. We are thus able to calibrate the television interview against the main body of the linguistic interviews, and determine its relative reliability and validity. The results of this comparison are given in Appendix D.

The results of the television interview will be used in Chapters IX and X, where they will be merged with the results of the regular linguistic interviews for certain specific variables. In Appendix D, the television interviews are analyzed separately for the information they give us on the non-respondents. On the whole, they indicate that the non-respondents show the same pattern of social stratification of the variables which is observed in the main body of 122 ALS respondents and 68 of their children who participated in the interviews.

Characteristics of the ALS respondents

In the remainder of this chapter, the social characteristics of the 122 ALS respondents will be discussed. We will also consider briefly the other members of the family

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interviewed in the course of the survey, primarily the children of the 122 informants.

Columns 5 and 6 of Table 3 compare the total number of interviews obtained with the ALS target sample. Column 7 shows the number of regular ALS interviews for each division. However, the over-all distribution of the informants is not so significant for our purpose as the distribution after one major division has been made in the sample: that between the natives of New York City, and those raised outside the city. We may therefore divide the 122 respondents as follows:

New Yorkers	84
Non-New Yorkers	38

Redefinition of "native speaker" and "New Yorker"

The original definition of "native speaker" had allowed only those who were born in the United States, or had come to this country before they were eight years old, excluding those in the second category who had a pronounced foreign accent. The definition of a New Yorker was at first made a little broader. Two speakers who had come to the city between the ages of eight and twelve were studied along with the main body of New Yorkers in the first investigation of the data. It was found that these two speakers showed linguistic patterns quite different from most Negro speakers born and raised in New York City. Both were Negro subjects who had come to New York from Virginia at the age of ten: a man 44

years old, and a woman 42 years old. Because their speech showed a mixture of characteristics that were not found together in native New York speech, nor in the speech of other Negro respondents from the South, their evidence was not used for either category.[22]

Two other marginal cases appeared as the result of analysis. Both were speakers whose status as native speakers of English had been considered marginal when first admitted to the sample. One was a Jewish woman of 49 who had been born in Hungary, and came to the United States when she was five years old. The other was an older Jewish woman of 69, born in Czechoslovakia, who also came to the United States at five. The details of their linguistic behavior ultimately showed that they did not act like native speakers of English, although no pronounced foreign accent was evident. In one distributional chart after another, these respondents appeared at isolated points with values of the variables quite different from those of other New Yorkers of the same age and social characteristics.[23]

Class distribution of the ALS respondents

As a result of these studies, we re-defined the concept of "native speaker" to include only those who had come to the United States before they were five, and the concept of "New Yorker" to include only those who had come to New York before the age of eight.

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In order to use the ALS sample to study class distribution, it was necessary to adjust the percentage of all class groups to an equivalent value. Originally, 100 per cent of the Negro working class and the Protestant working class was studied, since these were the smallest sections of the population. No Protestant informants in this group remained in the sample, but there are sixteen working class Negro informants. One-third of the original MFY sample must be rejected at random in this category, in order to allow comparison across ethnic groups. This process removes three Negroes from the group of completed interviews: two New Yorkers and one non-New Yorker. These individuals may be used for any study of Negro speech, but not for any general studies of the sample as a whole.

Finally, it was noted that there were only eight native New York interviews in category 9 of socio-economic class. This was the group that had lost the most heavily in the moving of subjects during the two year interval. Since this class was observed to form a separate sub-group in many ways, it was supplemented by the following procedure. The husband of one of the subjects was a leading figure in local politics. He was asked to suggest the names of local community leaders who were native to the area. With his cooperation, two informants were added to the list: an assemblyman and a pharmacist, one Jewish and one Italian. A third supplementary informant was selected from the group of research assistants at Mobilization for Youth, to add representation in the younger age

levels: a Jewish man raised in the Bronx, 27 years old. This addition brought the upper middle class group to a total of 11 New Yorkers in addition to the three non-New Yorkers.

With one exception, this category is a fairly uniform group of speakers. Calculations based on the group without the three supplementary speakers are quite similar to the presentation in Chapter VII with these added informants.

These subtractions and additions yield the following breakdown which serves as a base for the analysis of Chapter VII:

New Yorkers	81
Non-New Yorkers	37
Negroes not part of the basic sample	3
	121

Table 6 shows the distribution of the informants by class, as compared to the distribution of the 312 native speakers in the MFY survey, moved and remaining. This comparison shows the relative proportions of speakers of various classes in the total, and also relative success or failure in gaining representation in that class. The chief discrepancies lie in two sections of the scale. Class 2 is higher in the ALS sample, and class 3 is lower than in the MFY sample. If both of these classes are treated together, the discrepancy will in part be resolved. On the other hand, if classes 3 and 4 are combined, the total of 24% will not be far from the 25% of the original sample. The under-representation of class 6

TABLE 5

CLASS DISTRIBUTION OF ALS RESPONDENTS

	ALS			MFY
Class	New Yorkers	Non-New Yorkers	Total respondents	Total native speakers
0	7	5	12	30
1	7	3	10	30
2	9	7	16	32
3	13	1	14	43
4	10	5	15	37
5	5	5	10	25
6	8	2	10	40
7	9	2	11	21
8	2	4	6	18
9	11	3	14	36
	81	37	118	312

TABLE 6

CLASS DISTRIBUTION OF ALS RESPONDENTS

Per Cent

0	8.5	10.0	10.0
1	8.5	9.0	9.5
2	11.0	13.0	10.0
3	16.0	11.5	13.5
4	12.5	12.5	11.5
5	6.0	8.0	8.0
6	10.0	8.0	13.0
7	11.0	10.0	7.0
8	2.5	5.0	6.0
9	14.0	11.5	11.5
	100.0	100.0	100.0

can similarly be compensated for if classes 6 and 7 are combined. Thus by the same combination used in the original sampling we have:

	ALS New Yorkers	ALS Non-New Yorkers	MFY Total native speakers
0-2	28	32	30
3-5	35	32	33
6-9	37	34	37

Since the total picture shows approximately equal thirds in all cases, it is apparent that the fluctuations do not add up to a cumulative bias, but rather cancel each other out. However, it was noted above that the rate of moving for the higher classes was regularly higher than for the lower classes. [The figures were 26, 38, and 42 per cent for 0-2, 3-5, and 6-8.] For us now to arrive at comparable distribution in the population must mean that the completion rates are in an inverse progression. The actual rate of completion by class groups is 59, 72, and 65 per cent. [The addition of the three supplementary informants to the upper group, and the subtraction of the three working class Negro speakers, are the steps responsible for the final uniformity.]

Ethnic distribution of the ALS respondents

The distribution by ethnic groups for the ALS respondents is compared with the total MFY native speakers in Table 7.

TABLE 7

DISTRIBUTION OF ALS RESPONDENTS BY ETHNIC GROUP

			Per cent	
	Total ALS respondents	Total MFY native speakers	Total ALS respondents	Total MFY native speakers
Negro	32	67	26	24
Jewish, Orth.	23	49	19	16
Jewish, Cons. & Ref.	24	58	19	19
Catholic	35	104	29	33
Protestant	8	25	7	8
	122	303	100	100

Here the situation is not so favorable. Whereas the sample is over-represented for the orthodox Jewish population, it is under-represented for the Catholic group. The basis for this is a low rate of completion for the Catholic respondents in the ALS sample population. The percentage of ALS respondents as against the ALS target sample is shown below.

Negro	71%
Jewish, Orth.	71
Jewish, Cons. & Ref.	63
Catholic	58
Protestant	89

This difficulty in interviewing Catholic, especially Italian, subjects, was first encountered by the MFY survey. It was overcome by special efforts; in our case, the information in the television interviews will help to reduce this gap. Fourteen of the 33 television interviews are of Catholic informants. The relations of Catholic and Jewish informants must,

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however, be examined carefully for each of the variables as discussed in the next chapters. Since the class distribution of these groups is radically different, such relationships must be examined within each class; this can be done in the distributional analysis of Chapter VIII.

The most serious bias in the sample population is that of men vs. women. The considerable gap which existed in the ALS target sample between men and women has become a major problem in the sample of 122 informants. For all adult linguistic interviews, including the three supplementary upper middle class interviews, we find the following proportions of men and women

	Men	Women
ALS linguistic interviews	42	83
Television interviews	14	19
Remaining	25	15
	81	117

The overall record shows that we reached 92% of the female population, but only 71% of the males. The overbalance of women in the ALS interviews themselves is two to one. Again, the only approach to solving this problem will lie in the detailed analysis of distribution within each class. Wherever indications of a difference by sexes is suspected, it will be necessary to study each group separately.

The next chapter will be concerned with the class stratification of the variables. If men and women are unevenly concentrated in the various classes, then what appears to be class stratification may in reality be due to a differ-

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ence in the sexes. It is therefore imperative that the imbalance of men and women be checked for each class. For the sample of New York speakers; the proportions of men and women by class are:

Class	0	1	2	3	4	5	6	7-8	9
Men	2	2	2	4	3	1	2	4	4
Women	4	7	8	9	7	4	6	7	4

Considering the size of the numbers, we could not ask for a more even distribution than this. The only anomaly is the even percentage in class 9. If, however, we check the total number of men and women in the original group of native speakers [column 3 of Table 3] we find that this is one category where men are in the majority: 18 men against 17 women. However, the addition of the three supplementary informants to this class, all males, biases the situation more towards the preponderance of males, and all class 9 values need to be checked carefully for distortion on this point.

The ethnic distribution of the sexes is as follows:

	Catholic	Jewish	Negro	Protestant
Men	7	18	1	1
Women	14	22	7	2

Here we see a higher percentage of men in the Jewish group, and a lower percentage for Negroes. The two male Negro speakers rejected from the sample must therefore be used to check the results against bias on this point.

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Interviewing other members of the household

The MFY adult survey population was selected for those in the household over 20 years old. A second MFY survey was conducted among the adolescent children of the 911 informants. Of 706 potential informants, 555 were interviewed, or 79%.

TABLE 8

OTHER MEMBERS OF HOUSEHOLD

PARTICIPATING IN ALS INTERVIEWS

	Number of interviews
Informant alone	50
Spouse only present	15
Children present	51
1 child 42	
2 children 5	
3 " 2	
4 " 1	
5 " 1	
Parent of informant present	5
Friend of informant or of children present	10
Brother or sister of informant	6
Informant not present	7
One child of informant	3
Two children	3
Five "	1

In the present survey, it was considered impractical to aim for a systematic coverage of youth as well as adults. Any children of the principal informant who could be interviewed were included in the study. If an appointment was made beforehand, the informant was asked to have his children,

especially the oldest, to be present if possible. In a few cases, children were interviewed separately. Table 8 gives a view of other persons present and participating in the interview. As a result of this procedure, we obtained information on the linguistic behavior of 68 children of the informants, ranging from 8 to 35 years old.[24] The data from interviews with children will be brought forward in dealing with differentiation through age groups, in Chapter IX and thereafter, to extend the time depth of the study.

Summary of possible sources of error

In the course of this detailed examination of the sampling procedure, we have found a number of points where the possibility of bias in the results must be considered. All of these problems stem from the difficulties of surveying a large population with limited resources.

The loss of a large part of the population of native speakers through removal has been considered. No serious bias to the ethnic composition of the population was found, but there was a depletion of the higher ranking social classes and a corresponding increase in the proportion of the lower classes remaining.

This bias was compensated for by an inverse relation in the rate of completion of interviews, with worst results for the lower class. The net view of the population matches the original group of 312 native speakers in class distribu-

tion. The ALS informants are grouped in thirds as lower, working and middle class.

A lower rate of completion for Catholic residents was not matched by any compensating process, and this remains a possible source of bias. A more serious bias of the population lies in the proportions of men and women.

Despite these problems, we can say that the group of 122 informants has reasonably good representation from all classes, and all ethnic groups in the original population. The under-representation of some groups is not enough to prevent us from detecting the speech patterns of these groups as a whole.

We are not using quantitative methods in order to make an over-all estimate of the amount of (r-1) used in the Lower East Side, or in New York City as a whole. For that purpose, the differential rates of completion would raise serious obstacles. The use of quantitative methods in this work is for a different purpose: to show the structure of stylistic and social variation within the language of New York City. For that purpose, we need representation from all those who use the language in different ways. The great value of the secondary study, based on the firm foundation of the MFY survey, is that we are in no danger of omitting entire social groups from the discussion. If there was a linguistic or social type which had eluded us entirely, to be found only among the refusals or other non-respondents, this goal would be defeated. However, the various approaches to the non-re-

spondents discussed in Chapter VIII will cut sharply into the likelihood of such a loss.

We are now ready to analyze the results of the survey. In the next chapter, the class differentiation of the five variables will be shown in detail. This will be the most exacting test of the hypothesis first stated for (r) in Chapter III, which can be generalized for all of the variables as a result of the material to be presented.

NOTES TO CHAPTER VI

[1]The groups that are listed here under the general heading of ethnic groups are obviously identified by a very mixed set of characteristics: race, religion, language and country of origin. The use of the term ethnic group for these sections of the population is quite natural for those who are familiar with the political and social structure of New York City, although it may seem unusual for those who are accustomed to the use of the word in more traditional contexts. For a detailed discussion of the role of ethnic groups in New York City, see Nathan Glazer and Daniel P. Moynihan, Beyond the Melting Pot: The Negroes, Puerto Ricans, Jews, Italians, and Irish of New York City, (Cambridge: The M.I.T. Press and Harvard University Press, 1963). We will return to the discussion of ethnic groups in discussing the sampling procedure below.

[2]The Mobilization for Youth Survey of the Lower East Side, to be discussed in detail below, shows that 68 per cent of those living in the area less than five years moved from other parts of New York City [41% from Manhattan], while only 20 per cent came from outside the continental United States.

[3]A complete description of the Mobilization for Youth program, its research activities, and its plan of action is to be found in A Proposal for the Prevention and Control of Delinquency by Expanding Opportunities, published by Mobilization for Youth, Inc., 214 East Second St., New York 9, New York. References here are to the second edition, published August, 1962. It will be referred to as the MFY Proposal. The full form of the MFY questionnaires, and description of sampling procedures, are given in this volume.

[4]Richard A. Cloward and Lloyd E. Ohlin, Delinquency and Opportunity: A theory of Delinquent Gangs, (Glencoe, Ill.: The Free Press, 1960.)

[5]This reaction has been shared by all of the sociologists who have come into contact with work of this nature. Apart from any immediate practical applications, the theoretical importance of studying language behavior appears to be axiomatically obvious to many sociologists. A linguistic approach to social institutions is set forth in the textbook of Alfred R. Lindesmith and Anselm L. Strauss, Social Psychology, (New York: The Dryden Press, 1949). The first section of the

book is devoted to language, under the explicit statement that the essential difference between human and sub-human behavior is the use of language.

[6]A trial random sampling of my own involved counting every tenth building in a block, and calling on every seventh apartment. This method seemed to be free from bias, but did not enable me to choose my informants randomly within the family, nor could I predict how large an area I would be able to cover by this method before available resources were expended. Most importantly, any sampling on this basis would be unable to discriminate between native speakers and foreign language speakers, and a great deal of effort would be spent on fruitless calls on the latter type of resident.

I am particularly indebted to Mr. Donald Pappenfort of Mobilization for Youth, who was in charge of the original enumeration, for his initial suggestion on the use of the Mobilization survey; Dr. Lloyd Ohlin, Director of Research of the New York School of Social Work, who made it possible for me to utilize the facilities of the school and MFY, and furthered the project considerably by his interest and encouragement; and to Dr. Wyatt Jones, Director of Research for Mobilization for Youth, who provided not only the help of his office and staff, but also an enthusiastic support which never flagged.

[7]"The listing of housing units was facilitated by the Department of Buildings and the City Planning Department . . . A list of all buildings was compiled by street address, block number, and number of floors . . . . The Buildings Department supplied information on the number of dwelling units in each building, which was added to the list. The number of units per building in the public housing projects and middle-income cooperatives was obtained from the managers of the projects. A physical spot check of mail boxes and doorbells was made to confirm the accuracy of the count of dwelling units, and all buildings not listed by the Buildings Department were inspected to determine whether any part of them was used as living quarters. . . . A check of storefronts was made to locate any stores that were used as living quarters as well as places of business." --MFY Proposal, p. 564. This list was then verified by four other sources for a count of dwelling units per block.

[8]A small number of informants were offered payment, towards the end of the interview program. Fifteen accepted, twelve refused.

[9]Only 646 of the 988 interviews were conducted entirely in English; 176 were entirely in Spanish, 24 entirely in Yiddish, 18 in Italian, 13 in Chinese, 7 in Polish, 3 in Ukrainian, 2 in Russian. Thirty-eight other interviews were

conducted partly in a wide variety of languages, 23 partly in Spanish, 37 partly in Yiddish.

[10]Much of the material in this section utilizes the discussion of the area in the MFY Proposal, pp. 20-28.

[11]The lines are drawn to coincide with 13 Census Tracts utilized in the 1960 Census, coordinate with 5 Health Areas.

[12]The discussion of the housing conditions in the projects, as opposed to the tenements, should not be allowed to obscure the fact that the same social strains and tensions exist in both areas. There are delinquent gangs, such as the Centaurians, which were centered in the low-income project area, as well as gangs in the tenement areas. Problems of unemployment and lack of opportunity exist in projects as well as tenements.

[13]The only extensive repairs being made by a landlord which I saw in the Lower East Side were in a building which was slated for demolition; these repairs were being conducted so that the landlord would receive a higher price in compensation for the building's destruction.

[14]This Table, and the data on the two following pages, are based on information in the MFY Proposal, pp. 21-23.

[15]Comparisons of the Lower East Side with the national levels of occupation, income and education are made in "The Construction of the Social Class Index," (mimeographed) by John A. Michael, Mobilization for Youth, 214 East Second Street, New York, N. Y. This discussion, to which we will refer frequently in the following pages, is included as Appendix A to the Codebook for the Mobilization for Youth, Vol. 1, Adult Survey.

[16]In the sample which was finally interviewed for ALS Survey, Italians form the only component of the Catholic sampling group which was large enough to be studied separately. In the present chapter, we will discuss the characteristics of the Catholic group as a whole along with the other categories which we will refer to informally as ethnic groups. Of course neither the Catholic nor the Protestant categories form single ethnic groups, and this usage is solely for its utility in discussing sampling problems. The concept of ethnic group will be used for the analysis of the data in Chapter VIII, where the linguistic behavior of Jews, Italians and Negroes will be compared, and in ensuing chapters. At that point, we will resume the discussion of the concept of ethnic group, first raised in note 1 to the present chapter.

[17]This step produced complications; the success in obtaining interviews with Negro subjects was greater than expected, and the rate of moving among the lower and working class Negroes was less than expected. As a result, the excess of Negro working class speakers, as compared to the other working class groups, would have biased the over-all figures. As noted below, one-third of the Negro working class group was rejected on a random selection for all comparisons of class behavior. Among these rejections were two Negro men who were native New Yorkers; their evidence will be required to redress the general weakness of representation among male residents. The small Protestant working class group had moved out completely, so that there was no issue here.

[18]This leaves a certain number of speakers who were born outside of the United States, moved to other parts of the United States before they were eight years old, and subsequently moved to the Lower East Side. The information in the MFY survey did not allow us to identify these subjects. However, the rule given here was later modified to include as native speakers only those who had come to the United States before they were five years old, or were born in this country, and so the issue diminishes in importance.

[19]In the Protestant group, there were a number of young people who had moved to the Lower East Side within a year or so. Though shown here as native speakers, they were not included in the sample if they had been in New York City less than two years before the MFY survey. [The great majority of these had moved in any case.] Therefore Table 3 shows only 25 of the Protestant group as native speakers, which is only 55 per cent of the total.

[20]One was deaf, another had lost the use of her voice.

[21]In 1900, only 21% of New Yorkers were native white of native parents; in 1960, this category included 31%. See Glazer and Moynihan, op. cit., Table 2.

[22]The chief peculiarities of these speakers may be described as follows. Both showed a high allophone for the vowel in bat and that, at the level of (eh-3), which is not characteristic of New York speakers. The man showed a zero index for (th), typical of Southern Negro speakers, but not New York natives. The woman had a very high (th) level, but a very low (dh) index; her (eh) variable jumped suddenly from 13, to 28, to 17, to 25; her value of (oh) started at 21, typical of New York speech, and fell to a value of 35 in Style D. This latter value is typical of Southern Negro speech, but only middle class New Yorkers show this pattern of fluctuation; this speaker, who was class 1, was the only member of the New York group below class 6 to show such a pattern. Finally, she used an (r) pattern typical of lower class speakers, without showing any middle class influence.

[23]The chief peculiarities of these speakers may be summarized as follows. The older woman used a zero index for (th) and (dh) in Styles B and C, which is not characteristic of native New York class 3 speakers; she used a very pronounced and regular form of upgliding center diphthong in work and bird; her intonation showed strong Yiddish influence, and when I first spoke to her, I debated for some time whether or not to interview her as a native speaker. The younger woman, from class 2, showed a very high level of (r) at all points; she used a very low level of (oh) and (eh), and lacked most identifying characteristics of New York City speech. When she was first brought to the United States, she forgot her native Slavic language, and learned Yiddish only. When she went to school, she knew no English. Often she is told by friends and casual acquaintances that she does not speak like a New Yorker. Both of these informants show up at isolated points on distributional charts for values of the variables, such as those used in Chapter VIII.

[24]Information was also obtained from 35 associated persons such as parents, wives, husbands, and friends of the informant. Finally ten replacement interviews with families randomly selected to replace informants who had moved were also completed. In the present study, the information gathered from associated persons and replacement interviews will not be utilized, as it did not bulk large enough to be studied as a separate category.

PART II

SOCIAL DIFFERENTIATION

PART II

SOCIAL DIFFERENTIATION

CHAPTER VII

CLASS DIFFERENTIATION OF THE VARIABLES

The original problem which we faced in the opening pages of this study was to discover in the apparently irregular fluctuations in the speech of New Yorkers, a coherent linguistic structure. So far we have found evidence of a regular pattern of social variation and a regular pattern of stylistic variation. These were first viewed in isolation, in the speech of small sections of the community [Chapter IV]. In this chapter, we will use the results of the survey of the Lower East Side to describe the double pattern of variation in a representative section of the community. Instead of studying one axis of variation at a time, both will be seen together as part of a two-dimensional structure. Instead of a rough indication with a few examples, we will have quantitative statements where the sources of error can be estimated and minimized.

The meaning of <u>stylistic variation</u> has been defined and illustrated in Chapter IV, and the independent variable of contextual style has been given an operational definition within this study. Now it will be necessary to examine the

concept of social variation and give the independent variable along this dimension a correspondingly precise operational definition.

Social class as a measure of social stratification

The social stratification of New York City is considered here as a structure in two dimensions. On the one hand, there is social differentiation, which is the focus of this chapter and the following three. On the other hand, there is the social evaluation of such differences, which will be considered in Chapter XI. A consistent pattern of differentiation, which has social significance for the native residents of the community, will therefore be termed social stratification.[1]

The evaluation of this pattern takes the form of some kind of hierarchy, with ranking of better and worse on some evaluative scale. The scale of evaluation need not be linear: there can be, for instance, many lines of descent from one highest ranking group, or many lines of ascent from a lowest ranking group. These different lines may not be ranked in relation to each other by the community as a whole. Nevertheless, the concept of a single community implies that linear scales are possible, and most of the approaches which we will attempt will involve the matching of linguistic variables against a linear social ranking.

The social variable need not be conceived as socio-

economic class, though this is the usual association of the term "social stratification." It will be useful to begin with this concept as an independent variable, for some form of socio-economic differentiation is strongly suggested by the exploratory interviews and by the department store survey. In the following chapter, we will test other social variables, to see if the abstract construct of social class is required to account for the facts of linguistic variation, or if some simpler parameter can be found.

Two approaches to social variation of language

We can take two different routes to the description of social variation in language, no matter what means of describing social groups is chosen. On the one hand, we can consider various sections of the population, and determine the values of the linguistic variables for each group. In this way, we can determine what kind of speech a person would be apt to hear if he associated with college-trained professionals, what kind of speech he would hear if he worked all his life among longshoremen. The alternate approach is to chart the over-all distribution of the variables themselves, and then ask, for certain values of each variable: what are the social characteristics of the people who talk this way? This is equivalent to looking for the social significance of a speech pattern as we first hear it; when we meet a New Yorker for the first time, what can we infer about him from the way he talks?

Thus the first approach will describe for us the type of speech we can expect from a given group of New Yorkers, and the second will tell us what group membership we can expect from a person who talks in a certain manner.

Both approaches will be helpful in determining the particular social factor or combination of factors which is correlated most closely with linguistic behavior. However, the first approach, through social groups, seems more fundamental and more closely tied to the genesis of linguistic differentiation.

The evidence of this survey as a whole reinforces the idea that the social group of peers in which a speaker spends his pre-adolescent years is the main force in establishing his linguistic pattern.

While the parents may be the primary source for the basic language pattern which is common to all English speakers, they have little influence as a rule on the child's native speech or social dialect variations. In the latter respect, a child's native speech pattern is determined by his immediate friends and associates.[2] Contrast with outside groups, which comes later, is important in consolidating this native pattern or in imposing modifications from without. However, the most coherent system remains that which was established in the early years by the sanctions of the immediate group. Therefore, in asking about the language characteristics of a social group, we are dealing with an abstraction which has clearly observable correlates in the

history of the individual and the structure of the neighborhood. When we have finished this type of analysis, we may turn to the second approach, and use the concept of linguistic class as a first step towards establishing the over-all structure of New York City English. In following this procedure, we will be able to avoid any error which would arise in assuming that a group of people who speak alike is a fundamental unit of social behavior.

The socio-economic class index

The operational definition of socio-economic class which will be used in this chapter is the ten point scale set up by MFY on the basis of their adult survey. This scale has already been introduced as the basis for the stratified sampling procedure described in the last chapter. The theory behind this index, the procedures which were followed, and evaluation of the results are set forth in detail by John Michael [see note 15 to Chapter VI]. Since this material is unpublished, I shall quote extensively from it, and reproduce some of the tables which will help to explain the concept of class behind the index.

Michael's initial approach to stratification is through the concept of social rank.

> An individual's standing in terms of a hierarchy of positions can be called his social rank.

An individual may be ranked on a number of different scales; his combined social rankings represent his over-all or general social standing.

Since this is a community study, the individuals must be ranked by their standing in the local community; yet to preserve the utility of comparisons with national patterns, the scale must be related to the larger social systems of city, state and nation.

> . . . we shall keep both local and national hierarchies in mind as population referents since both play some [unascertained] role in determining a person's social position.

Faced with a choice of two orders of stratifying dimensions--those concerning production, and those concerning consumption--Michael chooses the former.

> The productive aspect of social rank [i.e., social class] involves the degree to which an individual possesses wealth, knowledge, power and authority, relative to other members of his society. In indices of class these hierarchies are most commonly represented by income, education, and occupation. Simply stated, social class is an individual's life chances stated in terms of his relation to the production and acquisition of goods and services. The consumptive aspect of social rank [i.e., status] involves an individual's expression of his life chances in a particular style of life. The emphasis here is on <u>how</u> the person spends his money, <u>where</u> he was educated, <u>how</u> he exerts his will over others . . . .
>
> To avoid contamination of status with our measure of social class, then, we construct the index of social class from variables reflecting <u>only</u> its productive aspect.[3]

A single indicator, such as occupation or education, might have been used for the social class index. Most of the indicators are closely related; Michael refers to a study of Horwitz and Smith which showed that two separate indicators of class predicted attitudes with roughly equal force in the same direction.[4] However, the decision to use a weighting of three indicators is based on considerations of accuracy and

reliability.

> . . . while indicators of class are interchangeable, we can combine indicators to achieve greater accuracy by eliminating fluctuations in social ranks from one hierarchy to another. Using more than one indicator of class also minimizes the errors accrued from measurement.

The three indicators chosen are occupation, education, and income. Each of these are determined on a scale of 8-10 levels in the survey, and then grouped into four broad categories. The categories for occupational rank are listed below. [A more detailed description is given in Chapter VIII, under the discussion of occupation as a single parameter.]

Occupational Rank	
IV	Professionals, Managers, and Officials [Salaried and Self-Employed]
III	Clerks and Salesmen
II	Craftsmen and Foremen; Self-Employed White and Blue-Collar Workers
I	Operatives, Service Workers, Laborers and Permanently Unemployed Persons

The occupation of the chief bread-winner was used for the entire family.[5]

The categories for occupation given above are derived from the ones used by the U. S. Bureau of the Census. One important change from the Census usage is the separation of the small shop-keeper from the owner of a large business. Instead of appearing in the highest rank, the candy store owner here appears in rank II. The decision to rank clerks and salesmen ahead of this group was based on the observation that "head work" is still accorded more social prestige than

"hand work," or at least, most people still behave as if this is the case.

The categories for educational rank are as follows:

Educational Rank	
IV	Completed Some College or more
III	Finished High School
II	Completed Some High School
I	Finished Grade School or Less

Here too, the policy was followed of assigning the education of the chief breadwinner to the entire family, with a set of rules similar to that used for occupation. This policy was not followed for the linguistic survey. Instead, the education of the individual being interviewed was used in ascertaining his position on the social class index. This seemed to be more in line with the purposes of the linguistic survey, where the focus was on the adult individual, rather than the family as a conditioning factor in the behavior of youth. However, when the final analysis of the linguistic variables was made, the many small adjustments in social class position produced by this change in the rules had no appreciable effect. The number of changes which increased the correlation of linguistic behavior with social class standing were equal in number to the changes which decreased that correlation.[6]

The indicator for income was calculated by a complex procedure which is given in detail in Michael's report. Essentially, the following steps summarize the construction of this indicator:

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1. The total income for the family, and the number of adults and children who are supported by that income were determined.

2. The number of "equivalent adults" in the household was determined from a chart which gave less weight to children than adults, following figures on the relative costs of supporting children and adults.

3. The income per equivalent adult was determined by dividing total family income by the number assigned under 2 above.

4. This figure was adjusted downward by $5.00 weekly, representing the common household expense for all sizes of families. The remaining figure is the adjusted income per equivalent number of adults.

The results of this procedure give us the following rankings:

Income Rank		Adj. Weekly Income per Equiv. Adult
IV	More than nation's median	$ 37.32 and above
III	More than the LES Median, but less than nation's median	$ 25.01 to 37.31
II	More than Minimum Wage, but less than the LES Median	$ 18.01 to 25.00
I	Less than Minimum Wage	$ 18.00 and less

The three indicators are now given equal weight in the derivation of a ten-point linear scale, in the matrix shown as Table I. The distribution of the original MFY informants on this array shows a considerable amount of scattering among the various

possibilities. Thus in classes 4 and 5 we find twelve possible configurations of occupation, education and income, running the gamut from the highest to the lowest category in each variable. On the other hand, classes 0 and 9 are the most uniform: only informants with the lowest and highest category for all three variables are included.

Michael gives considerable attention to the problem of dividing the continuum of social class; this will be a major question for the linguistic survey as well, when we do turn to the question of cutting the final ten-point scale into sections.

> . . . classes are ideal types of constructs so the society is viewed as sequentially ordered clusters of variables. But empirically, indicators of the productive aspect of social class are distributed on a positively skewed curve without sharp breaks between different strata.

In order to set up cutting points for the ten-point scale as a whole, Michael utilizes the discussion of class

TABLE I

WEIGHTS OF OCCUPATIONAL, EDUCATIONAL AND INCOME RANKINGS COMBINED

		INCOME RANK															
		(HIGH) IV				III				II				I (LOW)			
EDUCATIONAL RANK		OCCUPATIONAL RANK				OCCUPATIONAL RANK				OCCUPATIONAL RANK				OCCUPATIONAL RANK			
		(HIGH)			(LOW)	(HIGH)			(LOW)	(HIGH)			(LOW)	(HIGH)			(LOW)
		IV	III	II	I	IV	III	II	I	IV	III	II	I	IV	III	II	I
(HIGH)	IV	9	8	7	6	8	7	6	5	7	6	5	4	6	5	4	3
	III	8	7	6	5	7	6	5	4	6	5	4	3	5	4	3	2
	II	7	6	5	4	6	5	4	3	5	4	3	2	4	3	2	1
(LOW)	I	6	5	4	3	5	4	3	2	4	3	2	1	3	2	1	0

TABLE 2

THE DISTRIBUTION OF THE POPULATION AND THEIR EDUCATIONAL, OCCUPATIONAL AND INCOME CHARACTERISTICS, ACCORDING TO KAHL'S SOCIAL CLASS DIVISIONS

	Class Title	Educational Characteristics	Occupational Characteristics	Income Characteristics	Percentage of the National Population
V:	Upper Class	College graduate of the <u>right</u> school	First rate professional, manager, official or proprietor of a large business	Don't bother to count it	1
IV:	Upper Middle Class	College graduate	Careermen in professions, managerial, official or large business positions	Equally high but they count it	9
III:	Lower Middle Class	High School graduate, frequently with specialized training thereafter	Semi-professionals, petty businessmen, white collar, foremen and craftsmen	Enough to save for children's college education	40
II:	Working Class	Some High School	Operatives: Blue Collar workers at the mercy of the labor market	Enough for cars, T.V., etc.	40
I:	Lower Class	Grade School or less	Laborers: Last to be hired and first to be fired. Frequent job shifts	Struggle for bare existence	10

characteristics given by Joseph Kahl;[7] Michael's summary is shown as Table 2. Both productive and consumptive characteristics are combined on Table 2 to give a common sense view of class levels. In Table 3, Kahl's estimate of the size of these classes on a national scale is compared with the distribution of the ALS informants.[8]

TABLE 3

COMPARISON OF ALS INFORMANTS WITH KAHL'S CLASSES

Social Class Index	All ALS Informants	New York ALS Informants	Informants	Kahl's Description
MFY	%	%	%	Name
0	10	8.5	12.9	10 Lower Class
1	9	8.5	17.3	Mixed Lower Class and Working Class
2-5	46.5	45.5	49.6	40 Working Class
6-8	22.5	23.5	15.3	40 Lower Middle Class
9	12	14	4.9	9 Upper Middle Class
-	-	-	-	1 Upper Class
	100	100	100	100
[N:	118	81	988]	

Table 3 indicates, as predicted in the previous chapter, that the major differences between the Lower East Side and the nation as a whole are greatly reduced by studying only the native speakers of the area. Though the distribution of ALS informants is still shifted towards the lower end of the scale, the only serious discrepancy is in the shortage of lower middle class speakers. Fortunately, this group dis-

plays relatively consistent behavior, and the 23 per cent we do have will yield clear insight into the linguistic pattern characteristic of the group. As far as the upper class is concerned, we would not expect to find representatives of this group living on the Lower East Side, and any study of their speech must come from a different approach.

The labels used above will be applied informally to designate the four main sections of the social class scale, no matter how the cuts are made. The lowest portion, which may be shown as 0-1 or 0-2, will be called lower class; the group centering around 3 and 4 will be called working class, whether or not classes 2 and 5 are attached to it; classes 6-9 will be called middle class; when 6-8 are considered separately they will be called lower middle class, and when class 9 is treated separately, it will be called upper middle class.

The main part of the discussion to follow will concern the 81 New York respondents to the ALS interview. Aside from the difference in regional background between them and the out-of-town respondents, there is a great difference in racial composition:

	New York	Out-of-town
White	72	16
Negro	9	21

When the out-of-town respondents are considered, Negro-white differences must be taken into account. Any discussion which refers to the out-of-town informants, or includes them, will state this fact specifically: otherwise, only the New York

City informants are considered in the discussion to follow.

As Table 6 of Chapter VI shows, class 8 is extremely small in the New York sample, with only two informants. It will be treated here in every case along with class 7, as 7-8, since without exception, these two speakers show the same pattern of linguistic behavior as the nine speakers of class 7, rather than class 9.

Class stratification of the five variables

As a first step in the study of class distribution of the variables, we will simply follow the original division into three roughly equal parts of the scale: 0-2, 3-5, and 6-9. These total 23, 28, and 30 informants respectively. If the original view of the social variation of these variables is correct, we should find clear-cut separation of these three groups. Later, we may refine our view by dividing the continuum in other ways, but this first step will give us a base.

Table 4 gives the values for the array of the five variables for three class groups, following the arrangement used in Chapter IV. Figures 1 through 5 show the type of graphic display which we will use for studying class stratification. In these diagrams, the vertical axis is the phonological index, and the horizontal axis shows the stylistic levels which are utilized for that variable. The values for each class group are plotted on the diagram and connected along horizontal lines. This type of figure will hereafter be called

TABLE 4

CLASS STRATIFICATION OF THE VARIABLES

Class Group 0-2

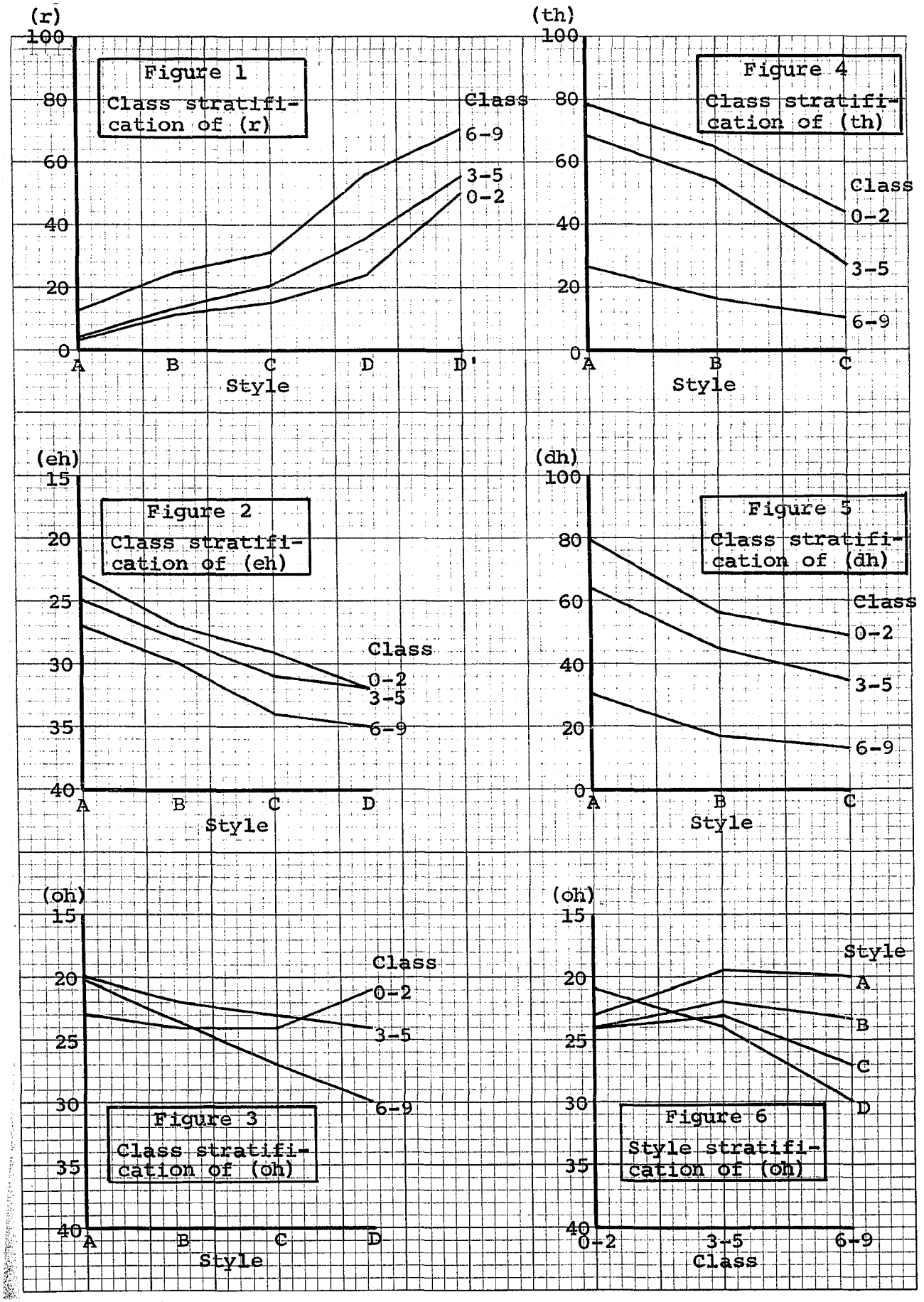
	Style A	B	C	D	D'	N:				
(r)	02.5	10.5	14.5	23.5	49.5					
(eh)	23.0	27.0	29.0	32.0						
(oh)	23.0	24.0	24.0	21.0		18	22	14	17	17
						13	21	13	17	
(th)	78.0	65.0	43.5			16	22	13	15	
						18	22	13		
(dh)	78.5	56.0	49.0			17	22	13		

Class Group 3-5

						N:				
(r)	04.0	12.5	21.0	35.0	55.0					
(eh)	25.0	28.0	30.5	32.0						
(oh)	19.5	22.0	23.0	24.0		26	28	26	27	26
						21	27	26	27	
(th)	68.0	53.5	27.0			23	28	26	27	
						15	28	26		
(dh)	63.5	44.5	34.0			22	28	26		

Class Group 6-9

						N:				
(r)	12.5	25.0	29.0	55.5	70.0					
(eh)	27.0	30.0	34.0	35.0						
(oh)	20.0	23.5	26.5	29.5		21	30	29	29	29
						23	30	29	29	
(th)	25.5	16.5	10.0			27	30	29	27	
						23	30	29		
(dh)	29.5	16.5	13.0			27	30	29		



a class stratification diagram.

These diagrams show both stylistic stratification and class stratification. The uniform direction of the lines, with steadily changing values as we progress from left to right, show a stratification of styles on the axis of informal to formal. The separation of the class strata is shown by the separation of the 0-2, 3-5, and 6-9 lines.

In Figure 1, we see a steady rise in the use of (r) with increasingly formal styles. This relation holds for all fifteen points on the diagram. Similarly, at each style the three class strata are differentiated. It may be seen that values for the use of (r) start at a very low point for casual speech. This reflects the basically r-less pattern of the language of the streets which we have noted in the exploratory interviews. Only the middle class 6-9 shows any degree of (r-1) pronunciation at this level. The rise of (r) indexes is quite steady through Style C; these first three styles are the only ones which represent connected speech. The sharp upturn of the 6-9 group for Style D, and a similar upturn for the others at D', shows habits in the pronunciation of individual words which are not characteristic of connected speech.

Figure 2 shows a relatively fine separation of the three strata, with the lower class and working class reaching the same point for Style D. The gap between the middle class and the rest is widened in this reading of word lists, just as in Figure 1 for (r). The regular progression of values

indicates a shift from the high, close vowel of (eh-2) towards the lower, open vowel of (eh-4).[8]

Figure 3 is altogether different from these two. Whereas the 3-5 line and the 6-9 line show separation along the same lines as in the (eh) diagram, the lower class line starts on the lower side, and crosses the diagram with no apparent direction, ending at a relatively high point. This situation is best viewed in a different type of diagram, such as the one shown in Figure 6 for the same (oh) data. Here the vertical axis shows the (oh) index, as before, but the horizontal axis is occupied by the three class groups. On the diagram, the values for each stylistic level are plotted and connected along straight lines. This type of figure will be termed hereafter a style stratification diagram.

Figure 6 shows us that the (oh) pattern is essentially curvilinear for the three class groups. The highest vowels are those of the working class, and the two extreme groups both use lower vowels. Furthermore, we see a regular pattern of stylistic stratification for the working class and middle class, but no such pattern for the lower class. Thus the pattern for (oh) differs from (eh) in three respects:

a. The highest vowels are shown by the working class, not the lower class.

b. The lower class shows no pattern of stylistic variation.

c. The differentiation of middle class from working class increases rapidly in Styles B through D.

VII-19 Figures 4 and 5 are the class stratification diagrams for (th) and (dh). Here we see a regular separation of the three class groups and the three stylistic levels. Furthermore, the spacing of the three class groups remains relatively constant, through the three styles, as compared to the situation shown in the three preceding diagrams. It would be too soon to connect this fact to the stability of the (th)-(dh) pattern in respect to linguistic change, but this possibility may be investigated by a number of other routes to confirm the suggestion seen here.

In these six diagrams, the basic outlines of social differentiation are established. The first hints of the exploratory interviews, the marked regularities of the stylistic investigation, here culminate in a clear demonstration of a stylistic-social structure. Given ten to twenty utterances of a speaker in several stylistic levels, we find a regular progression of the variables; when this speaker is placed with ten or twenty others of the same social class, the combined values of the variables fall into a relatively fixed position in this structure. This restriction on the possible values of an averaged variable may be illustrated by examining the working class value for (dh), Style B. It must lie somewhere between (dh)-64 and (dh)-34 if the structure of stylistic variation is to be preserved, and between (dh)-56 and (dh)-17 if the structure of class variation is to be preserved. The actual value is (dh)-45.

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There are a number of open questions which remain. First, the divergence of the 0-2 group in Figure 3 must be accounted for, especially as compared with the convergence of 0-2 and 3-5 in Figure 2. Secondly, we must ask whether the divisions into 0-2, 3-5, and 6-9 represent natural cutting points of the scale of class as far as language is concerned. Will some other division show clearer stratification, or is this the most effective in that respect? Thirdly, we would like to follow up the suggestion stemming from the differences in the behavior of the middle class 6-9 in Figures 1-3 as against Figures 4-5.

These questions are all connected, and may be studied here, by closer examination of the data. First, we may wish to consider whether the cross-overs shown in Figure 3 would be resolved by any different arrangement of the classes. For example, there are a number of divisions of the class continuum which will show good stratification for (r), (eh), but not (dh). If we cut 0-1, 2-5, 6-9, we will see a cross-over in the (dh) diagram: the 0-1 line will come down below the 2-5 line at Style B, and then cross back up again, as in Figure 7. In this case, we might have concluded that the (dh) variable divided the community into only two distinct strata, instead of three. Such a conclusion would unjustified, however, because it was produced by a division of classes that was quite arbitrary, and a different division shows a higher degree of structural organization in the complex of social and

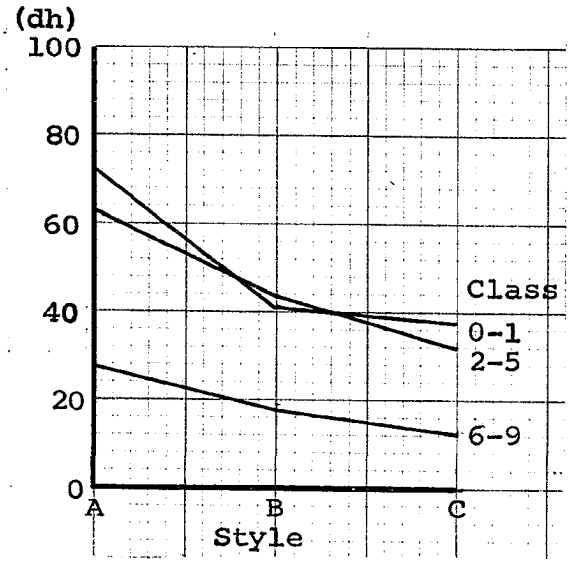

Figure 7

Apparent deviation from class stratification of (dh) with alternate grouping of classes.

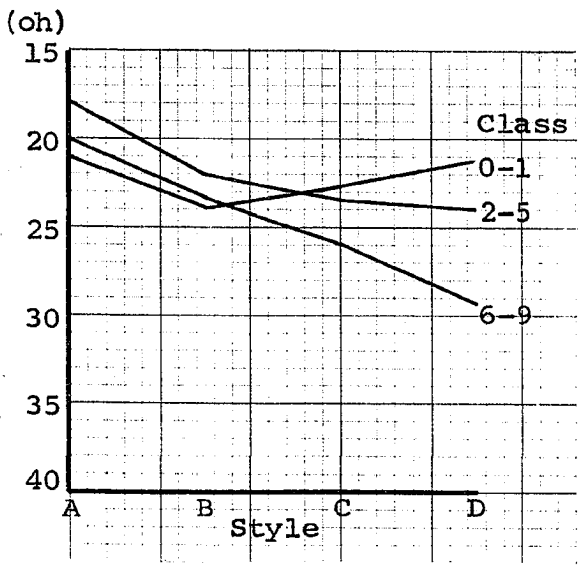

Figure 8

Real deviation from class stratification of (oh) with alternate grouping of classes.

stylistic variation. We may call such a deviation as that shown in Figure 7, an <u>apparent deviation</u>. In the course of working with the data, a good many apparent deviations from class and stylistic variation may occur. Some are due to mechanical errors; some to the presence of marginal informants who do not fit the pattern; some to the division of the class continuum. All of these can be resolved into the regular pattern of stratification shown in Figures 1, 2, 4, and 5.

However, no re-division of the data, no re-shuffling of informants will resolve the deviation shown in Figure 3. For example, Figure 8 shows the class stratification of the (oh) variable with the class groups 0-1, 2-5, 6-9. The situation remains the same, because this behavior is character-

VII-22 istic of the core classes, 0-1, 3-4, and 6-8. We may call such a deviation from regular structure a real deviation.

Real deviations from regular structure can often be the source of new theoretical gains. We may note that Figure 3 is a case of a double deviation. Not only does the 0-2 group deviate from class stratification, but it also deviates from stylistic stratification. It is oriented neither towards the class structure nor the stylistic structure. We may therefore infer that for lower class speakers, (oh) is not a phonological variable as (eh) is. These informants are seemingly immune to the various pressures towards stratification of (oh). We will be able to examine this suggestion more closely below, but first we may follow up the idea inherent in the fact that the only real deviation in this series is a double deviation. The combined evidence in the study thus far leads to the following general hypothesis:

> For the phonological variables, real deviations from class stratification are consistently and reciprocally associated with real deviations from stylistic stratification.

The implication of this hypothesis is that the factors which produce both types of stratification are the same. This is not an obvious fact. There is no reason, on the face of it, for the lower class not to use high, close (oh) vowels, higher than the working class, and yet show no stylistic stratification. Nor is there any reason, on the face of it, why the lower class could not use intermediate values of (oh), and yet preserve stylistic variation.

We have seen that (oh) does not behave like a socially significant variable for the lower class, that it neither marks them nor stigmatizes them.

In Chapter IX we will study the evidence for linguistic change in the distribution and social significance of (oh); the present position of the lower class in regard to (oh) will be seen as characteristic of an early stage of change from below.

The term deviation has been used here informally, to indicate failure of the data to satisfy an expectation that has been set up by a pattern repeated in previous displays. This pattern is a structure; the only definition which has been given so far for this term is "the interrelation of parts as dominated by the general character of the whole," [from Webster's New International, 2nd edition, quoted in Chapter IV.] This statement gives only one property of the structures we have been considering, and it is plain that "general character" is a phrase which is designed to elude precise definition. In general, the term structure has been used without exact definition by linguists, reflecting an intuitive understanding based on their familiarity with inflectional paradigms. Now, however, we are confronted with the immediate need for a precise statement, if the hypothesis concerning real and apparent deviation is to be subject to empirical confirmation. We will re-state the hypothesis as follows:

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> Real deviations from regular structures of stylistic variation are mutually and reciprocally associated with real deviations from regular structures of social variation.

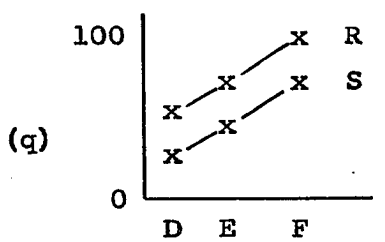
and proceed to the exact definition of regular structure in the following section.

Definition of regular structure

A regular structure is defined here as a regular array of relations between linear sets.

A linear set is a group of units defined by a series of selections which differ only in their successive filling of ordinal ranks on a linear scale. The set of all integral values of (r) from 1 to 100 is a linear set defined by successively selecting the lowest value, 0, the next highest, the next highest, and so on. The set of contextual styles is defined by successively selecting the most informal style, the next most formal, and so on. The set of socio-economic classes is defined by selecting the lowest ranking, the next highest ranking, and so on.[9]

An array of relations is a set of relations in which the form of any one relation can be predicted from its position in the whole [this is the formal equivalent of Webster's definition given above.] Thus in the structure:



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we have the following array of relations.

$$\begin{array}{ccccc} R(q)F & > & R(q)E & > & R(q)D \\ \vee & & \vee & & \vee \\ S(q)F & > & S(a)E & > & S(q)D \end{array}$$

in which the relations between any given term and the others could be predicted if that term was missing from the data. This is a regular structure, defined by a regular array. It is the type of structure which was seen in Figures 1, 4, and 5, and will be found in many diagrams to follow. If one of the inequalities were reversed, or replaced by an equality, there would be an irregularity or a deviation from the structure. If one of the terms of the deviant relation were not given in the data, the deviant relation could not be predicted from a consideration of the array as a whole. Such deviations are seen in Figures 2, 3, 6, 7, and 8.

We can then proceed to define a structure as an array of relations between linear sets for which the degree of deviation from a regular array [and therefore from a regular structure] can be measured. Thus Figures 2 and 7 show one deviation from a regular structure. Figure 3 shows five in the following array:

$$\begin{array}{ccccccc} 0\text{-}2(oh)A & > & 0\text{-}2(oh)B & = & 0\text{-}2(oh)C & < & 0\text{-}2(oh)D \\ \wedge & & \wedge & & \wedge & & \vee \\ 3\text{-}5(oh)A & > & 3\text{-}5(oh)B & > & 3\text{-}5(oh)C & > & 3\text{-}5(oh)D \\ \vee & & \vee & & \vee & & \vee \\ 6\text{-}9(oh)A & > & 6\text{-}9(oh)B & > & 6\text{-}9(oh)C & > & 6\text{-}9(oh)D \end{array}$$

However, the transitivity of the inequality relation masks the fact that there are more deviations from regular struc-

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ture than those shown above. There are actually $\frac{n(n-1)}{2}$ relations for each row and column in the structure, a total of 30 expected inequalities rather than the 17 shown above. Thus the total list of deviations of Figure 3 is:

deviations from class stratification:

0-2(oh)A	3-5(oh)A
0-2(oh)A	6-9(oh)A
0-2(oh)B	3-5(oh)B
0-2(oh)B	6-9(oh)B
0-2(oh)C	3-5(oh)C

deviations from stylistic stratification:

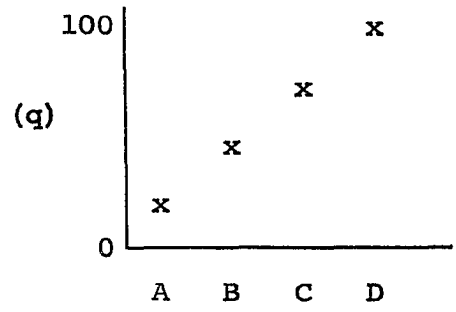
0-2(oh)C	0-2(oh)B
0-2(oh)D	0-2(oh)C
0-2(oh)D	0-2(oh)B
0-2(oh)D	0-2(oh)A

This list shows a total of nine deviant relations out of 30 expected relations; we may refer to this measure as a deviation of .30. The less accurate approach given first shows almost the same figure in this case: a deviation of .29.

We would intuitively believe that a structure which shows a deviation of .50 or more is not a structure worth considering. It would then lose its predictive value for any missing or additional terms.

If in Figure 3, we were to remove group 0-2 from consideration, the result would be a regular but less complex structure uniting class groups 3-5 and 6-9. If class group 3-5 were removed as well, could we then say that any structure remained? The structure of social variation would have been eliminated, but the structure of stylistic variation would remain.

VII-27 The structure of stylistic variation [or of social variation], considered alone may be called a first-order structure. It consists of relations between two linear sets:



and the array of relations is one-dimensional:

$$(q)A < (q)B < (q)C < (q)D$$

This is the type of array which was used in Chapter IV when stylistic variation was studied alone. Note that if there are only three units in one linear set, then there is no difference between structure and regular structure: one deviation gives an index of .50. The array then no longer distinguishes a regular from an irregular relation, and has no predictability.

The simplest case which might be considered is a zero-order structure. This consists of one linear set and one homogeneous set. A homogeneous set is a special case of a linear set in which the group is defined by a single selection. "All adult New York City informants," for example, is a set defined by several operations, but the results of all operations are pooled in a single selection. Thus a zero-order structure is equivalent to a simple statement: "All adult New York City informants have a (q) index of 32." It is a trivial case of structure since it has no regularity.

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A zero-order structure may be repeated a number of times; if the repetitions form a homogeneous set, we have a recurrent zero-order structure. This is a familiar structure in the repeated measurements of a single variable, used to confirm the reliability of a procedure. In this case, the repetitions are not considered ordered, and a relationship of equality is predicted: an equivalent zero-order structure. If the repetitions form a non-homogeneous linear set, we have a first-order structure, as described above. The first-order structure may in turn be repeated; if the repetitions form a homogeneous set, we have a recurrent first-order structure. Table 4 shows arrays for such recurrent structures. There are no relations between the horizontal rows, so these arrays are not second-order structures. They represent repetitions of the structure of stylistic variation for a homogeneous set of the main phonological variables used in this study. Such recurrence helps confirm the linear nature of the set of contextual styles, though it shows no order among the phonological variables. If a deviation in the structure is repeated for each unit of the homogeneous set, it is a recurrent first-order deviation.

If the repetitions of the first-order structure form a non-homogeneous linear set, they generate a second-order structure. The second-order structure may be repeated a number of times: if the repetitions form a homogeneous set, we have a recurrent second-order structure. Figures 1 through 5 form such a structure. The question which we may now raise

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about any deviations in the class stratification diagrams, is whether they are recurrent second-order deviations. To show this, we must demonstrate that there is a homogeneous set for which the structural pattern is repeated, and in which the second-order deviation is always found. This will then become a different pattern from the ones in which the deviation is not found, applicable to different sets, and therefore the deviation is no longer a deviation. We may then say that recurrent deviations re-define regular structures.

Finally, it may be noted that if the repetitions of the second-order structures form a non-homogeneous linear set, they generate a third-order structure. The definitions from this point on form an open set.

The possible relations of class to language

At this point, we might ask whether we have any theoretical reason to suppose that all of the cutting points for all of the variables would fall along the same lines. This depends upon our view of the possible relations between class and language. If we think of class as a rigid series of categories, in which the marginal cases are rare or insignificant, then a proof of class correlation with language would require equally discrete categories of linguistic behavior [in our terminology, sharp stratification]. Language traits characteristic of Negro and white groups in the United States, for example, would necessarily show a pattern with only two or three

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discrete categories. If, on the other hand, we think of class as a continuous network of social and economic factors, in which every case is marginal to the next one, we would expect that language would also show a continuous range of values, and the number of intermediate points of correlation would be limited only by the consistency and reliability of the data [in our terminology fine stratification]. A correlation of smoking habits with death rates, for example, shows this matching of one continuum against the other.

It is clear that class and language relationships will be somewhere between these two extremes. The usual meaning of class, as opposed to caste, presupposes a degree of vagueness in boundary lines, and an amount of mobility which produces many marginal and mixed cases.[10] But though Michael refers to his objective class index as a continuum, he is aware of the fact that the social phenomenon he is trying to classify is not a continuum, but shows a certain degree of discrete structure. Hence his concern with a theoretical justification for cutting points. However, these considerations are admittedly weak ones, and the types of correlation used to justify such cutting points are much weaker than the linguistic evidence we will introduce. In this chapter, the independent variable is treated as a continuum, which we will divide in several ways to show the clearest pattern of stratification for each variable. This may involve several reorganizations of the class groups shown above. From this procedure, we will gain on two theoretical grounds:

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[1] The linguistic variables which are most clearly stratified by the same divisions of the continuum may be understood as associated in the over-all linguistic structure.

[2] The cutting points where the linguistic evidence shows the greatest internal agreement will be indicated as the most natural divisions of the class continuum--to the extent that language is a measure of class behavior.

In such decisions, the evidence of Style B will be considered first, as the most stable measure with the maximum number of responses, and considerations from the other styles will be used as auxiliary information.[11]

The results of these decisions are the selections of units of linear sets which enter into the phonological structures we are studying.

The social structure of (r)

Though the information given by Figures 1-6 seems to be very substantial, there are a great many half-truths concealed in these simplified statements. One such half-truth is that (r) stratifies the population into three distinct class groups. In Figures 9 through 11 we present detailed evidence to show that (r) shows fine stratification: it differentiates the New York community into a great many strata. In fact, the resolution of the population into intermediate classes is so fine that we seem to be approaching the model of the continuum suggested above as a limiting case.

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In Figure 9, we have a style stratification diagram which shows the data for all nine classes for each of the five styles. [Classes 7 and 8 are always grouped together]. The fine breakdown will be used in each for a preliminary view of the distribution of the linguistic facts: it is assumed that the individual classes are too small to show regular stratification in every case, and our aim will be to

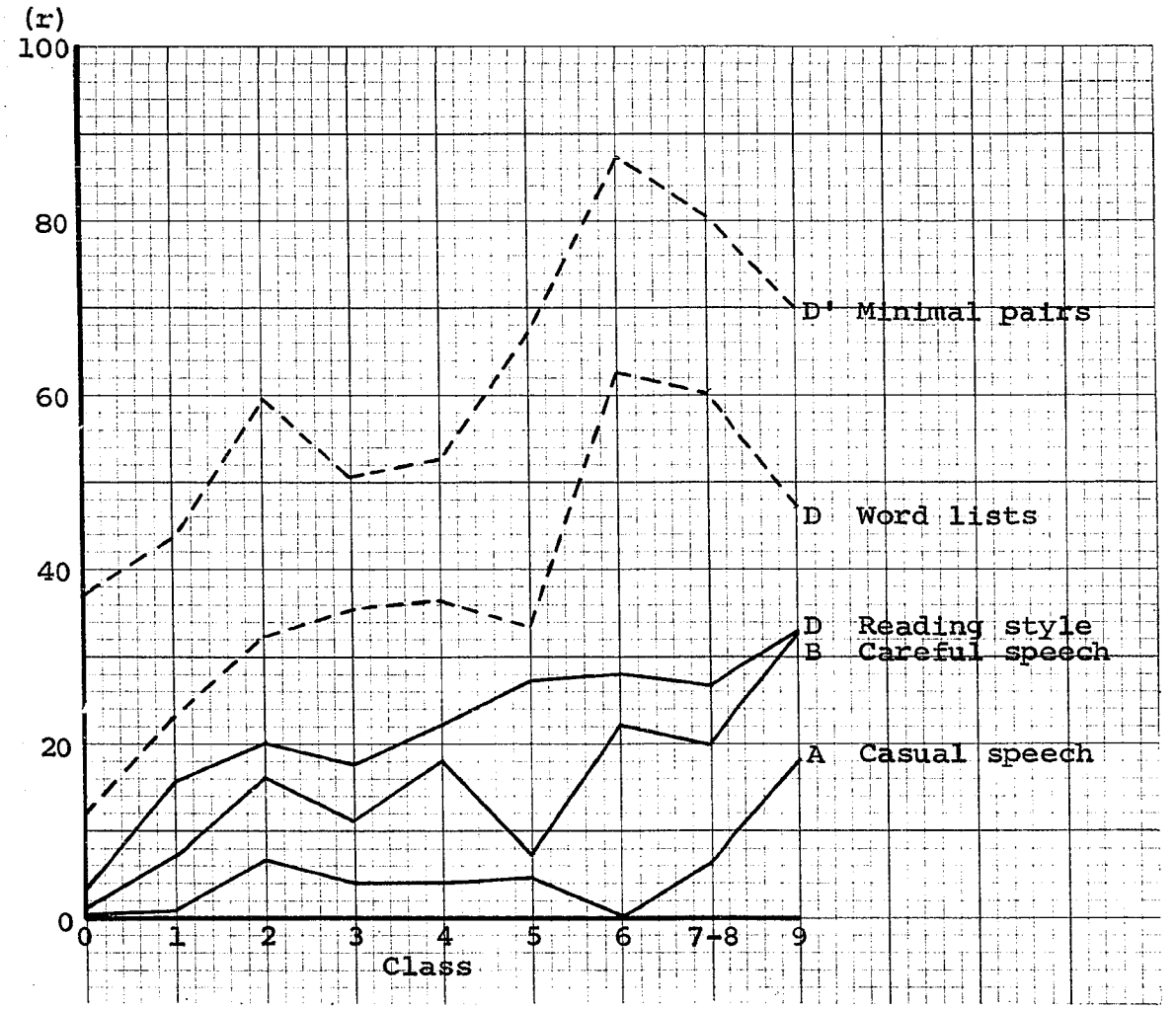

Figure 9

Detailed style stratification of (r): nine classes

divide the class scale [1] into more groups than the three shown in Figures 1-5, and [2] at the most natural divisions in the linguistic pattern. Since we have between three and five stylistic levels, it is assumed that the same amount of data will be able to discriminate three to five class strata.

The fluctuations in Figure 9 are small: except for a slight high point for the marginal class 2, and a dip for the marginal, low-frequency 5, we see smooth progressions upward from zero almost to 90. We do note that there is a sharp decline from this high point to class 9, but as we shall see, this decline is itself a recurrent deviation which re-defines regular structure.[12]

This smooth progression indicates that we can cut at many points along the class continuum, and obtain good stratification. Figure 10 shows a second style stratification diagram for (r) in which the class continuum has been simplified only slightly, to six points instead of nine. Now the progression departs from regular structure only in the downturn for Styles D and D', which we will see below as a recurrent second-order deviation. The grouping of the social classes actually conforms closely to the division made by Michael, following Kahl.[13]

In this diagram, we see that the lowest line, that for Style A, runs very close to zero until class 9 is reached. On the other hand, as the formality of the styles increases, we find that the discrepancy between 9 and the other classes decreases. Finally, for Style D', the lower middle class is

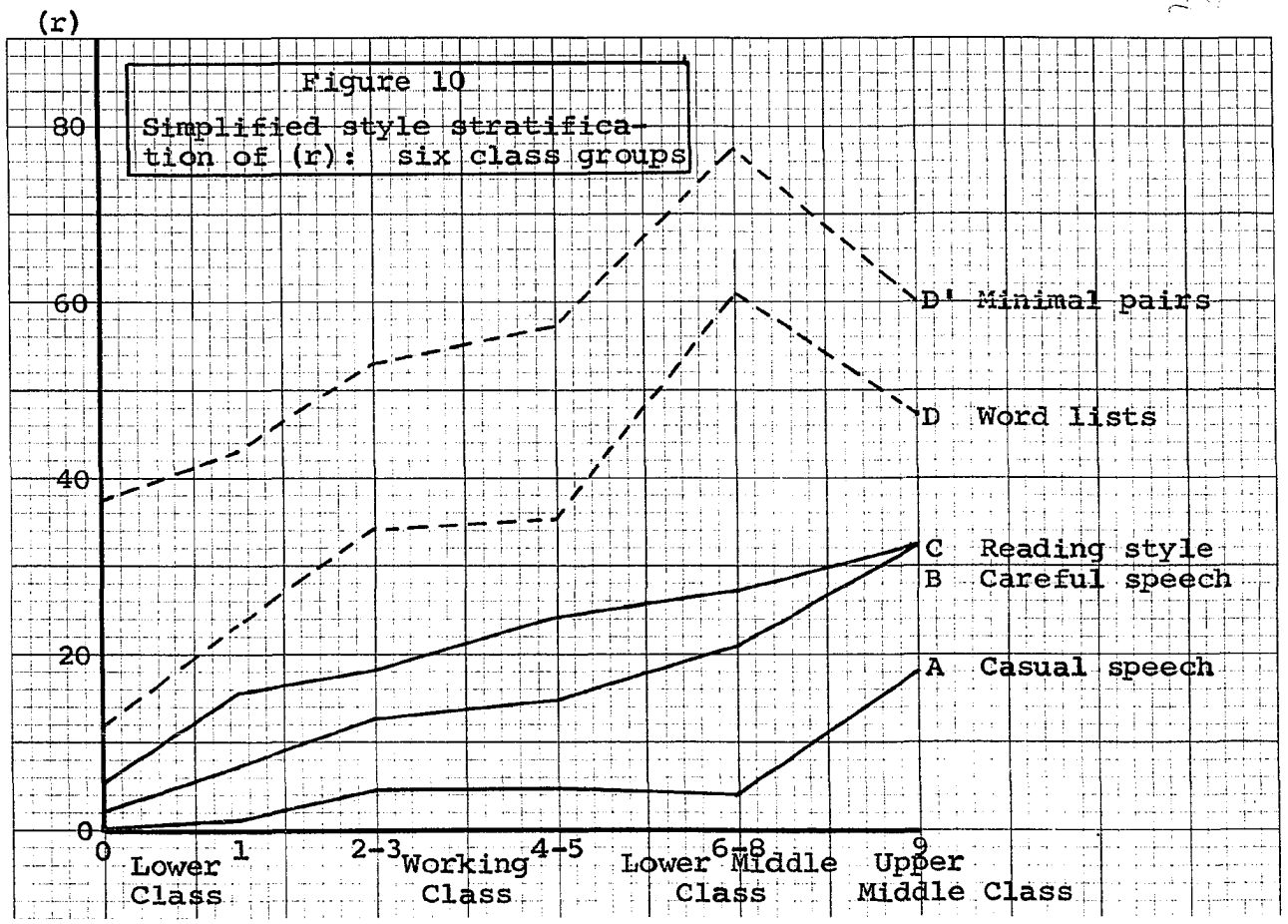

Figure 10
Simplified style stratification of (r): six class groups

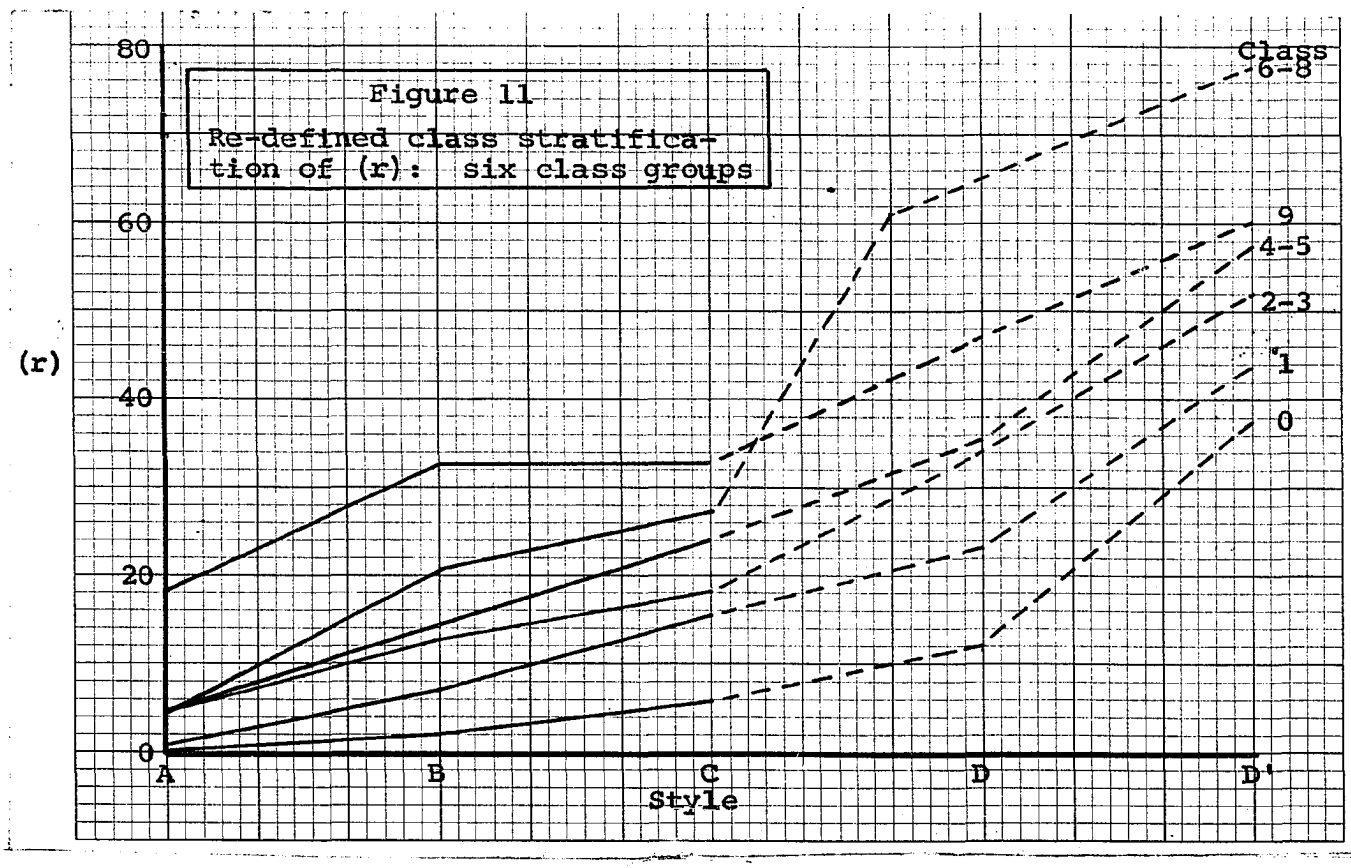

Figure 11
Re-defined class stratification of (r): six class groups

much higher in (r) index than the upper middle class.

We can now see the social stratification of (r) more clearly if we look at the class stratification diagram of Figure 11. Here the six strata run parallel to each other in a very fine structure of stylistic and social stratification. There is one cross-over in the pattern: the sudden upward jump of the 6-8 class, which goes beyond the class 9 line for Styles D and D'.

In all of these diagrams, the lines leading to Style D and D' are shown dotted, to indicate that these values do not represent connected speech. Instead, they may be thought of as a kind of phonic intention, illustrating the norms of the speaker, in part, rather than a reliable indication of performance.

At the extreme left of Figure 11, we see that most of the strata are grouped very near to the zero index for (r). The lowest group, class 0, never uses any (r-1) in casual speech, the others practically none. Group 9, on the other hand, shows an (r) index of 18, averaging one out of every five vowels with (r-1). This is a very noticeable amount, enough to distinguish class 9 speech in every-day life. This figure covers groups with very opposite tendencies: in the discussion of differentiation through age groups we will find that (r-1) has become even more of a marker of upper middle class speech for younger speakers than for older ones.

This left hand edge of Figure 11 confirms the impressions of every-day life in New York City. Since the upper

middle class speakers are few in number, and do not talk loudly in public places, we may conclude that New York is completely (r)-less in casual speech. But close attention to casual speech in such surroundings will reveal the pattern seen here.

Appendix B presents some brief examples of casual speech collected anonymously on the Lower East Side. The material on (r) in the lunch counter episode may be studied for comparison with Figure 11.

In Figure 11, we see that the behavior of lower middle class and upper middle class is almost totally opposed. The lower middle class uses no more (r-1) in casual speech than the great majority of New Yorkers. In careful speech and reading style, it follows the same gradual increment in (r) index as classes 0-5, but at a higher level. The sudden upward jump for isolated words carries the lower middle class from a low of (r)-04 to a high of (r)-78. We may contrast this type of hypercorrection with the relatively steady pattern followed by the upper middle class. Starting at a moderate value of (r) index in casual speech, there is a slight increase to reading style and careful speech, and then a less extreme rise for isolated words.

We may note that the working class groups are not immune from the sudden increase in Style D': the direction of class 5 echoes the more extreme example of class 6.

The disparity between intention and performance is one of the significant themes which will appear in many parts of

this study. Without studying the evidence from schools or mass media, or even comparing the usage of various classes, we may interpret the sudden jump upward between Style C and D as an indication of the social prestige of (r-1). In other words, both axes of variation reflect the establishment of a prestige feature. Along the axis of stylistic variation, we see the use of (r-1) penetrating the habits of an individual; along the axis of social variation, we see it penetrating the population as a whole.

In summary, the following features of the social distribution of (r) appear in Figure 11 which were not seen in Figure 1:

1. (r) shows fine stratification: the use of (r-1) differentiates the class continuum into at least six groups, and there is no sign of a sharp break in behavior between classes 0-8.

2. The middle class group 6-9 is not a coherent unit with respect to (r); it is differentiated into a lower middle class which uses little (r-1) in casual speech, but a maximum amount in the most formal styles, and an upper middle class group which is the only class to use a significant amount of (r-1) in casual speech.

3. The lower middle class shows a crossing of class lines between Styles C and D. This appears to be a real deviation from regular structure as long as class 6 is differentiated from class 9. If, however, the crossover pattern is repeated in the structure of variables which form a homogeneous or linear set with (r), it will then be a part of a regular structure as defined.

The social structure of (th) and (dh)

We will now turn to a completely opposite type of linguistic variable. Whereas (r-1) is a feature of a new prestige pronunciation, (th-3) and (dh-3) are long-established signals of a stigmatized speech pattern. [Chapter XI will establish this point in detail.]

In Figures 12 and 13, we see style stratification diagrams for (th) and (dh), where the data for all nine classes is shown at three stylistic levels. The two diagrams have much in common, but differ in some important respects.

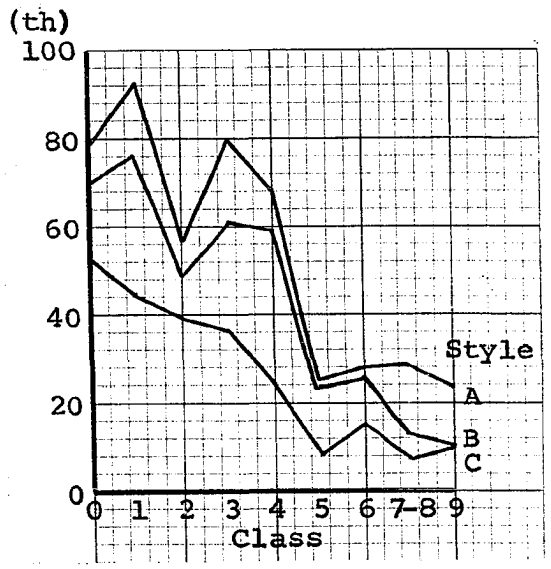

Figure 12

Detailed style stratification of (th): nine classes

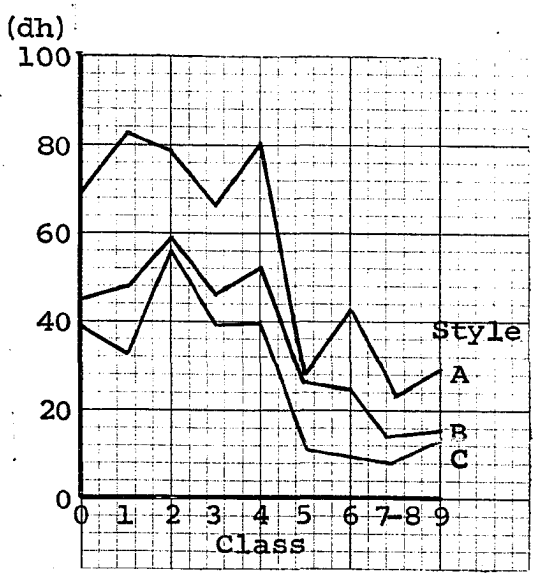

Figure 13

Detailed style stratification of (dh): nine classes

The (th) variable shows a very steep decline from the high point set by class 1 in Style A: (th)-96. The marginal class 2 shows a much lower value than the general shape of the curve suggested, at least in Styles A and B. Style C

shows a much smoother progression.

The fluctuation which we see here in the lower class section is typical of many which will be found throughout the present chapter. There are many complex causes for this uneven behavior which will be examined further when we come to social evaluation. For (dh), the pattern of the lower class is almost reversed, with the marginal group 2 showing a peak rather than a valley, and class 0 and 1 falling behind the working classes 3-4.

Both variables share a sudden drop for the small group 5, and we see an extreme difference between classes 4 and 5 which could hardly be greater. Since class 5 is small, we cannot treat this point too closely; for the moment, we can say that this group of speakers behaves very differently in regard to these variables as compared to (r). It is difficult to avoid placing them with the lower middle class.

The over-all view which we derive from Figures 12 and 13 is summed in the class stratification diagrams of Figures 14 and 15. Here we see the class continuum divided into four groups for (th) and three for (dh), both examples of regular structure.

We are under no obligation to treat each variable in the same way; there is no reason to assume that each is affected by the class structure to the same extent, or that stigmatized values of each variable are rejected by the various classes to the same degree. However, it is reasonable to proceed on the assumption that the cutting points for each

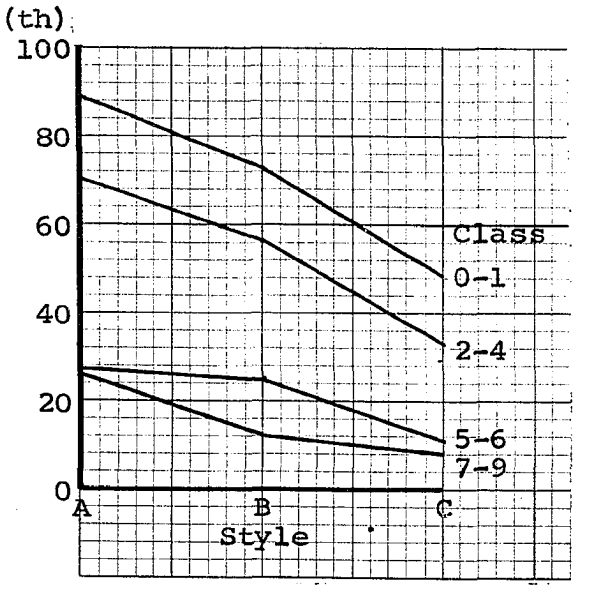

Figure 14

Re-defined class stratification of (th): four class groups

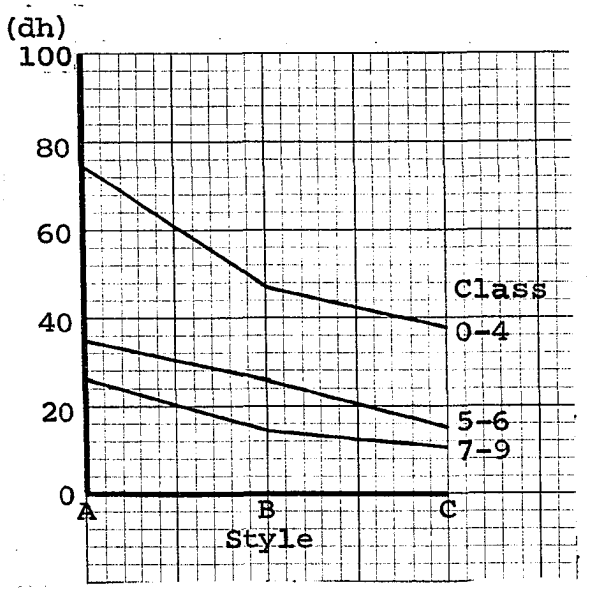

Figure 15

Re-defined class stratification of (dh): three class groups

variable will be the same, until the fact of distribution clearly contradicts this assumption. In the case of (th) and (dh), which are paired in their articulation as well as in their history, we need especially good reason to use different cutting points for the social continuum.

The discrepancy between (th) and (dh) cutting points is justified as we examine the fluctuations of Figure 13; there is no point between class 0 and 4 where it would be reasonable to divide working class from lower class. Whereas it is possible to make a sharp distinction between 0-1 and 2-4 for (th), yielding even better stratification than for the original Figure 4, this is not possible in the case of (dh). We now see that the solution of Figure 5, cutting 0-2, 3-5, 6-9 was really quite artificial. By placing the 5 class with 3-4, the average values of these classes brought them below the 0-2 level. But from Figure 13, it is quite evident that class 5 falls with the lower middle class. The great gap between working class and lower middle class in the use of (dh) is obscured by the original Figure 5; in the present Figure 15, this gap is quite plainly shown.

The comparison of (th) and (dh) illustrates the fact that a stop consonant used as the initial sound of <u>think</u> and <u>thing</u> is characteristic of lower class speakers much more than working class speakers. These words often occur in stressed position. However, the use of stops and affricates in words such as <u>then</u> and <u>the</u>, which use (dh) in unstressed position, is a characteristic of both working class and lower

class. That is not to say that the whole body of speakers from class 0 to class 4 is uniform: there are other ways of differentiating these 46 speakers. But class stratification of (dh) does not discriminate among them. [In the next chapter, we will discuss a method of analyzing this large group through a combination of occupational and educational rank.]

We see that unlike (r), these two variables do not space the strata evenly. The (th) variable, which shows four strata, groups them two and two. On the other hand, there are no sharp deviations from the overall pattern of class stratification, such as we saw in the (r) diagram. Most of the strata continue along fairly straight lines. Thus we have regular, sharp stratification.

This may be a reflection of the comparative stability of the (th) and (dh) distribution, as mentioned before. However, it is somewhat surprising to find that there are not more strata in this picture. We have only found one more division for (th), and no more for (dh). It is particularly surprising to find no difference between the lower middle class 7-8, and the upper middle class 9, which was so clearly differentiated in the case of (r). The reason for this anomaly lies in a single deviant case: from a close examination of this case, we may learn a great deal more about social stratification of language.

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The deviant case of Nathan B.

The class 9 informant we will now consider is a life-long native of the Lower East Side. There is nothing marginal about his demographic characteristics: his parents were Russian and Polish Jews who came to New York City well before he was born. He grew up on the Lower East Side, played with boys from the neighborhood, and went to school there. He completed college by attending evening school, and went on to obtain a Ph. D. in political science. He is married, and lives in the Corlears Hook cooperative apartments where many of the other upper middle class informants are to be found. At 40 years old, he has published several books on Jewish political history, and though he works in local government to some extent, his principal occupation is writing and research.

From the first few words that Nathan B. spoke, it was obvious that he used an extraordinarily high percentage of stops for (th) and (dh). He commented on this himself at the very beginning: "I have a speech problem with th's."

The indexes for his speech are as follows:

Styles

	A	B	C	D	D'
(r)	03	09	12	23	42
(eh)	35	37	40	38	
(oh)	29	27	28	25	
(th)	88	93	88		
(dh)	107	89	114		

Frequencies

35 55 48 26 12
4 19 25 13
14 19 17 11
18 38 24
67 103 42

The indexes for the first three variables are not uncharacteristic of other New Yorkers of his age and class background.

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However, the very high values of (th) and (dh) are matched only by some lower class or working class speakers. The frequencies are more than enough to substantiate the (th) and (dh) values in all three styles. What is most remarkable is that the values do not fall: they are essentially constant despite the strenuous efforts of the speaker to pronounce fricatives.

In this case, we see a real deviation on the part of an individual, which answers the requirements of the hypothesis: class deviation is associated with stylistic deviation.

Nathan B.'s difficulty is not confined to speech production alone, but concerns phonemic perception as well. At one point in the interview, I asked him to pronounce the numbers from one to ten, and then asked where was the top of his tongue as he started to say ten. When he answered, I continued:

Interviewer: And den?

Nathan B.: Den. Den. I have trouble with th's.

At another point in the interview, I asked a question about the feeling many people have that "whatever is going to happen is going to happen."[14]

Interviewer: The word fate doesn't ring a bell with you?

Nathan B.: It rings a very strong bell...I'm very proud of my Judaic heritage, and when you mentioned the word [feɪt], to me this means Judaism.

Interviewer: I didn't...I don't...that would not have occurred to me originally...

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Nathan B.: (fe:t) or (fe:t^h)?

Interviewer: Not (fe:θ).

Nathan B.: F-A-I-T-H.

Interviewer: F-A-T-E.

Nathan B.: Oh, well, that's quite different. Fate in itself--I don't give it much thought (th-3).

A further element in this deviant pattern is that when Nathan B. tries very hard to say (th), aiming at the fricative, he often uses an /f/. [This is ranked as a (th-2) in the index.] This characteristic, while common among Negro speakers, is otherwise rare among adult New York speakers. It appears to be a common trait of young children of 4 or 5, who are still learning to pronounce (th).

We have now documented the deviant nature of Nathan B.'s behavior. The question is, how can such a speech pattern, whether it is physiologically or culturally conditioned, fit in with the situation of an upper middle class person? We can readily conceive of a lower class person getting along [in his later years] with a prestige style of speech, though he will be considered an eccentric by those who know him. Can the upper middle class accept such a linguistic eccentric as Nathan B.?

The answer is that Nathan B. was not accepted. He has been rejected from the upper middle class role which would normally have been assigned to him. When he was attending college, it is said that he broke all academic records for evening students. He captained a debating team, but his

written speech had to be delivered by another student. Several times in his college career he stubbornly refused to take speech courses, as he considered them unimportant to his main purpose. As he approached the award of the Ph.D. degree, he was considered a most eligible candidate for a teaching appointment at the university. A professor in the political science department had an informal conversation with him, in which he told Nathan B. that he had a promising future at the university, and that he would be glad to see him continue on the staff. However, he would have to take corrective courses to improve his speech. Nathan B. abruptly refused to do anything of the kind, and the academic world was closed to him. He continues, not unhappily, working in political science, but primarily as a writer and not as a speaker.

Whatever the reasons may be for Nathan B's eccentric behavior, it is evident that some sections of upper middle class society cannot tolerate a speaker who uses such a high percentage of socially stigmatized forms.[15]

If we now re-examine the (th) and (dh) diagrams in this light, it becomes apparent that stratification is more precise than Figures 14 and 15 showed. Figures 16 and 17 separate class 9 from 7-8. The dotted line shows class 9 as it is measured with Nathan B.'s results included; the solid line shows class 9 at the much lower level which represents the usage of the other ten speakers in this group. The contrast may be emphasized by the following figures:

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		A	B	C		A	B	C
class 9 with Nathan B.	(th)	23	10	10	(dh)	29	15	14
class 9 without Nathan B.		12	5	2		21	6	4

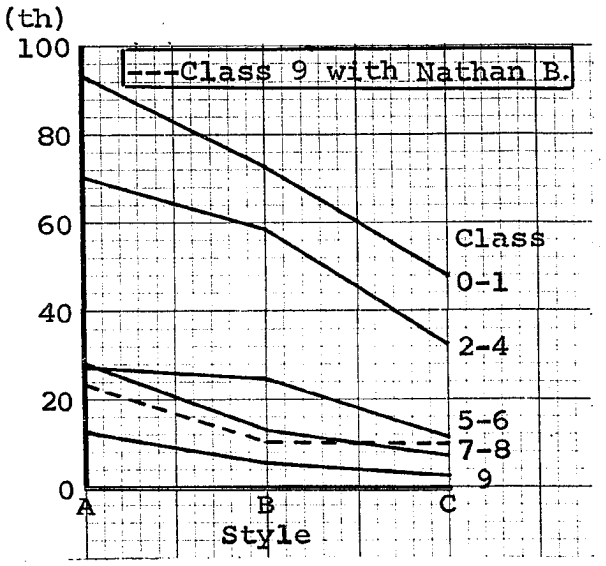

Figure 16

Class stratification of (th) without Nathan B.: five class groups

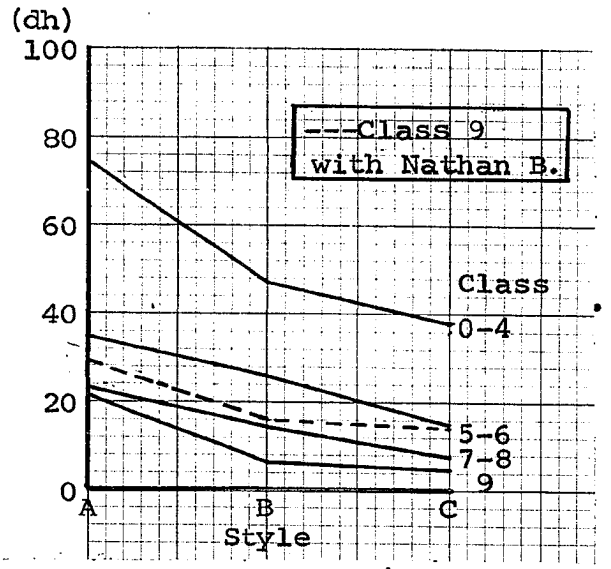

Figure 17

Class stratification of (dh) without Nathan B.: four class groups

This discussion is not meant to indicate that the case of Nathan B. is unique; it is only logical to assume that if one of twelve upper middle class speakers in the sample was deviant in this way, that there must be dozens of such individuals in the population of 20,000. However, such deviant cases cannot perform all of the normal functions of upper middle class persons, and there are sanctions imposed upon those who deviate greatly from the norm represented by the solid line in Figures 16 and 17. This is the upper middle class stratum which society recognizes.

The social structure of (eh)

The initial view of the (eh) variable, in Figure 2, was quite clear. This simple view was an illusion, however, for Figure 18 shows a great deal of irregular fluctuation in this variable. The general overall trend is recognizable as the gradual downward movement which we saw in Figure 2, but the regularity which we saw in the style stratification diagram of (r) is missing. There are alternate rises and falls, with the successive peaks and valleys following the direction of the variable as we saw it originally.

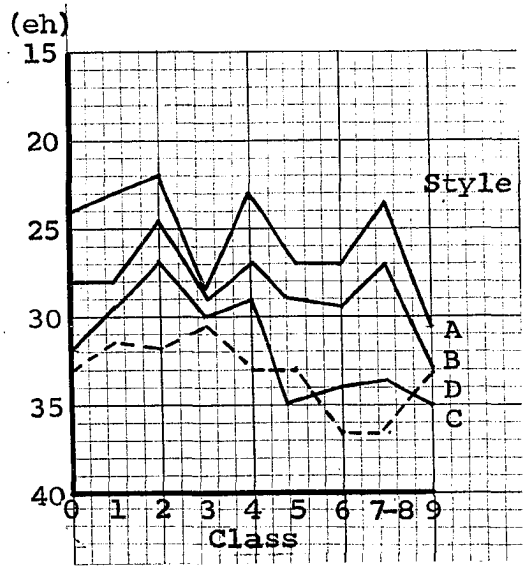

Figure 18

Detailed style stratification of (eh): nine classes

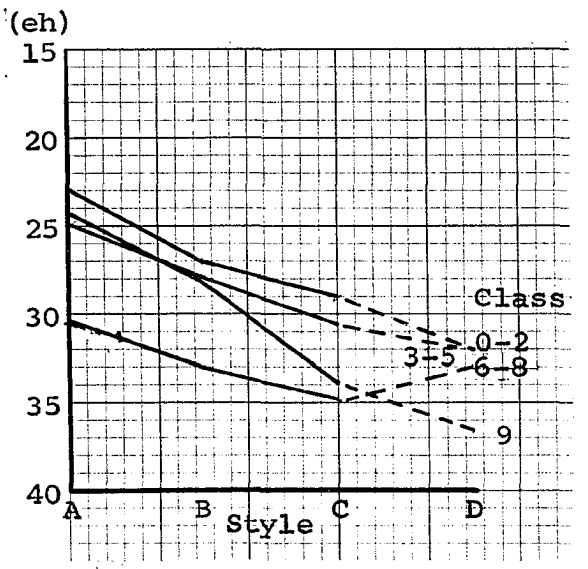

Figure 19

Re-defined class stratification of (eh): four class groups

The structure of stylistic stratification seems fairly well preserved, for lower class as well as middle class. There are two crossing points: for class 5 as well as class 9,

Style D has crossed Style C. In the case of class 5, we have become accustomed to such fluctuations; we do not expect regularity from this small unit. In the case of class 9, however, we must accept this crossover as part of the pattern for the moment. Whether or not it is a real deviation remains to be seen.

When we examine Figure 18 for any opportunity for finer stratification, as compared to Figure 2, the only possibility lies in the separation of lower middle class, 6-8, from upper middle, 9. In Figure 19, we see the class stratification diagram which shows the results of this division. The lower middle class starts at a high point, above the working class, and cuts sharply downward to the extreme low point of (eh)-36.5. It cuts across the upper class between Style C and D, just as we observed in the case of (r).

Thus there are a number of questions about (eh) which must be answered:

1. Why is there such irregular fluctuation along the axis of class variation?

2. Why does the lower middle class group cut across two other class lines?

3. Why does the upper middle class value for (eh) reverse direction for Style D?

The first question can only be answered by the distributional analysis of the next chapter. Before approaching the other two questions, it will be useful to look at (oh).

The social structure of (oh)

The style stratification diagram of Figure 20 is quite different from anything which we have seen before. Despite some apparent confusion, it seems to fall naturally into four sections. For classes 0-2, there is no first-order structure of stylistic stratification, and no first-order structure of class stratification. The chaotic situation seen there confirms the earlier impression that this variable does not have social significance for the lower classes. With the working class, 3-5, we see the beginning

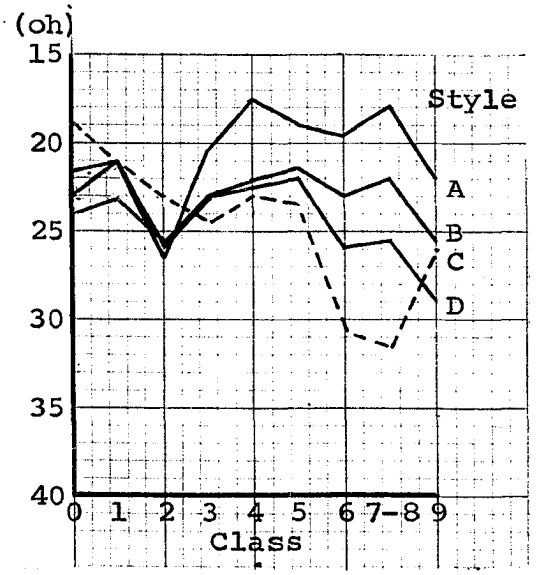

Figure 20

Detailed style stratification of (oh): nine class groups

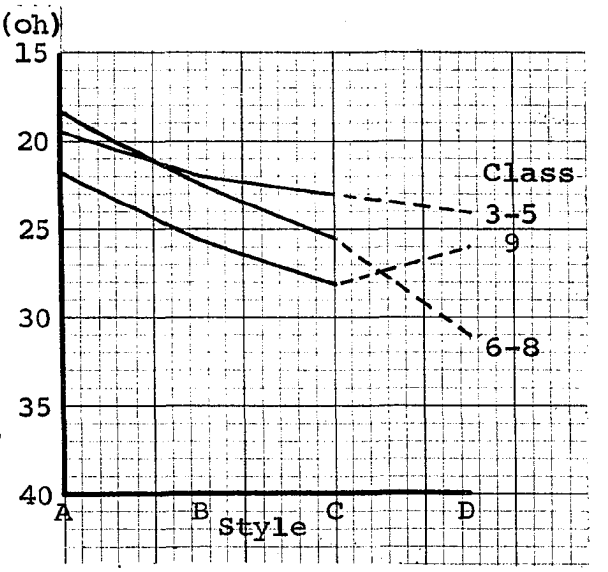

Figure 21

Re-defined class stratification of (oh) without lower class

of a structure. Style A rises to a maximum for class 4; Style B falls below this, but Styles C and D are indistinguishable at a slightly lower level. The marginal class 5 is the first to show the four styles in their normal order,

leading to the very different pattern of the lower middle class. The (oh) values for Style A are just as high as for the working class; but the other styles show a sudden increase in the range of stylistic variation.

Once again, we see that the upper middle class is more moderate in stylistic range than the lower middle class. Styles A, B, and C are considerably lower than for the 6-8 group, and here too we find a stylistic cross-over, with Style D between B and C.

The parallel between the (eh) and the (oh) variables is carried out further by the class stratification diagram of Figure 21. Because the lower class does not enter into this structure, it is not shown here. Once again, we find the lower middle class starting above the working class, and ending well below all other class groups. The only difference between the structure of Figure 21 and that of Figure 19, is that the lower class is missing in the latter diagram.

The pattern shown by (oh) is a clear example of curvilinear distribution, with the two center classes leading. Whether the high values of (oh) in casual speech were first developed in the working class, or the lower middle class, or both, we see them at a position well beyond the (oh)-20 mark. Unlike the variable (eh), the (oh) variable is not recognized as socially significant by all sections of society. As we compare diagrams 19 and 20, it is clear that the lower class and working class speakers are perfectly capable of following a regular pattern of stylistic variation for (eh)--but have

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apparently not instituted such a regular pattern for (oh).

We have now observed three cases where the lower middle class has shown a cross-over pattern. For (r), only the upper middle class line was crossed. For (eh), both working class and upper middle class lines were crossed. Finally, for (oh), the lower middle class lines ran the full gamut, from the very highest point on the graph to the very lowest.

Two aspects of the (oh) distribution suggest a process of linguistic change in progress: the exclusion of the lower class from the pattern of social and stylistic variation, and the hypercorrect behavior of the lower middle class. This aspect of (oh) distribution will be examined carefully in Chapter IX. The cross-over is also a sign of linguistic insecurity, as indicated in the index of linguistic insecurity discussed at the conclusion of Chapter XI. Neither of these factors would be apt to show up strongly in a long-established pattern of social stratification which was not subject to change. It is not surprising, then, that we have found the cross-over only for (r), (eh), and (oh), but not for the (th) and (dh) variables. The latter variables were originally introduced into our study primarily because they were considered likely to show a stable pattern, one not involved in the linguistic changes of the other variables.

This reasoning has a flaw, however. The cross-over we are primarily interested in is to be found between Styles C and D. Yet (th) and (dh) have only Styles A, B, and C. No

word list was presented for these variables. It is possible that the lower middle class would show a sudden down-turn for (th) and (dh) if we had data for Style D. The interpretation of the cross-over as a synchronic sign of linguistic change rests upon further proof in Style D.

Fortunately, there is enough data on (th) to resolve the question. In the (eh) word list, we find bath; in the days of the week, there is Thursday; in the numbers from one to ten, there is three. With these three items, we can build an index for (th) in Style D; the number of items is only a little less than that used for (r) in D'.

The numbers of individuals who used either stops or affricates in the three words listed are shown in the table below.

TABLE 5

DISTRIBUTION OF (th-2) AND (th-3) IN STYLE D BY CLASS

	SEC								
Class	0	1	2	3	4	5	6	7-8	9
No. of informants	7	7	9	13	10	5	8	11	11
No. using stops or affricates	3	3	2	5	1	0	1	1	0

In Figure 22, the information for all nine classes is entered on a style stratification diagram, along with the other three stylistic levels. It is satisfying to note that the fluctuations in the Style D line match the irregularities of the other styles quite closely. The economical index for (th)-D

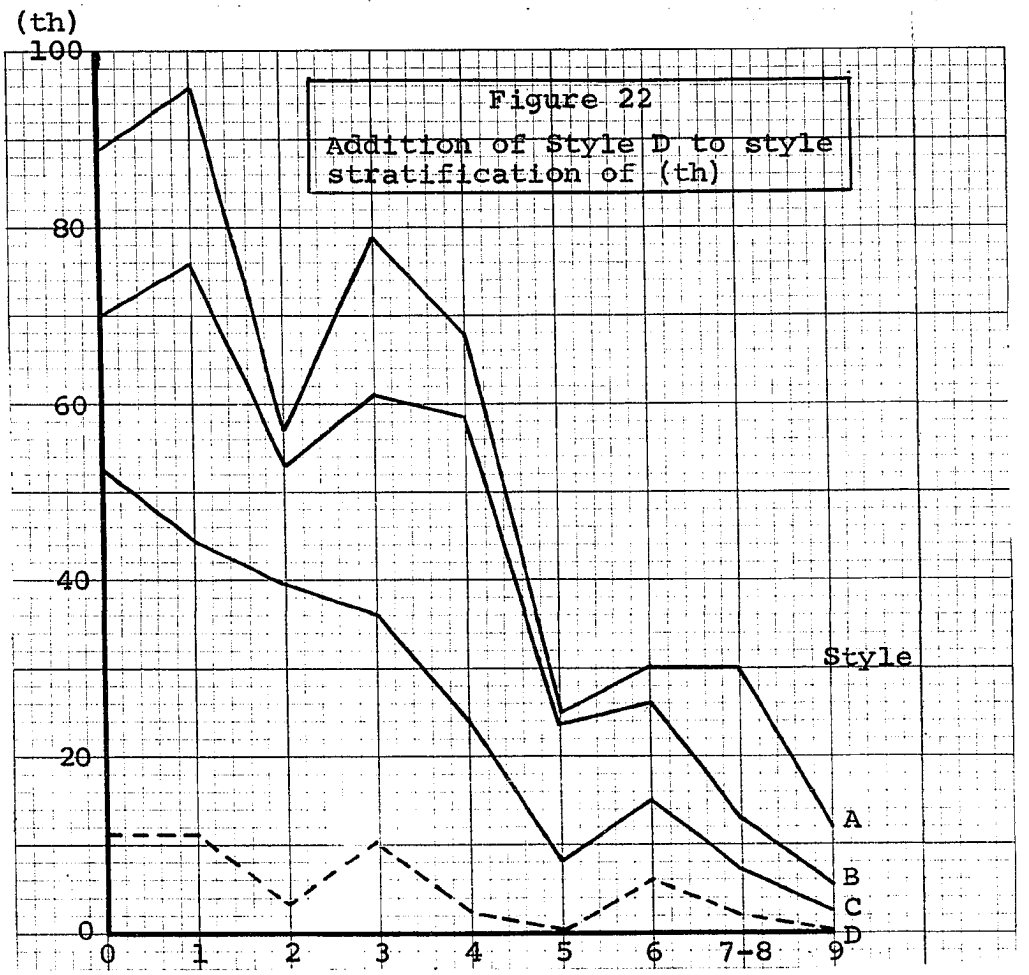

Figure 22
Addition of Style D to style stratification of (th)

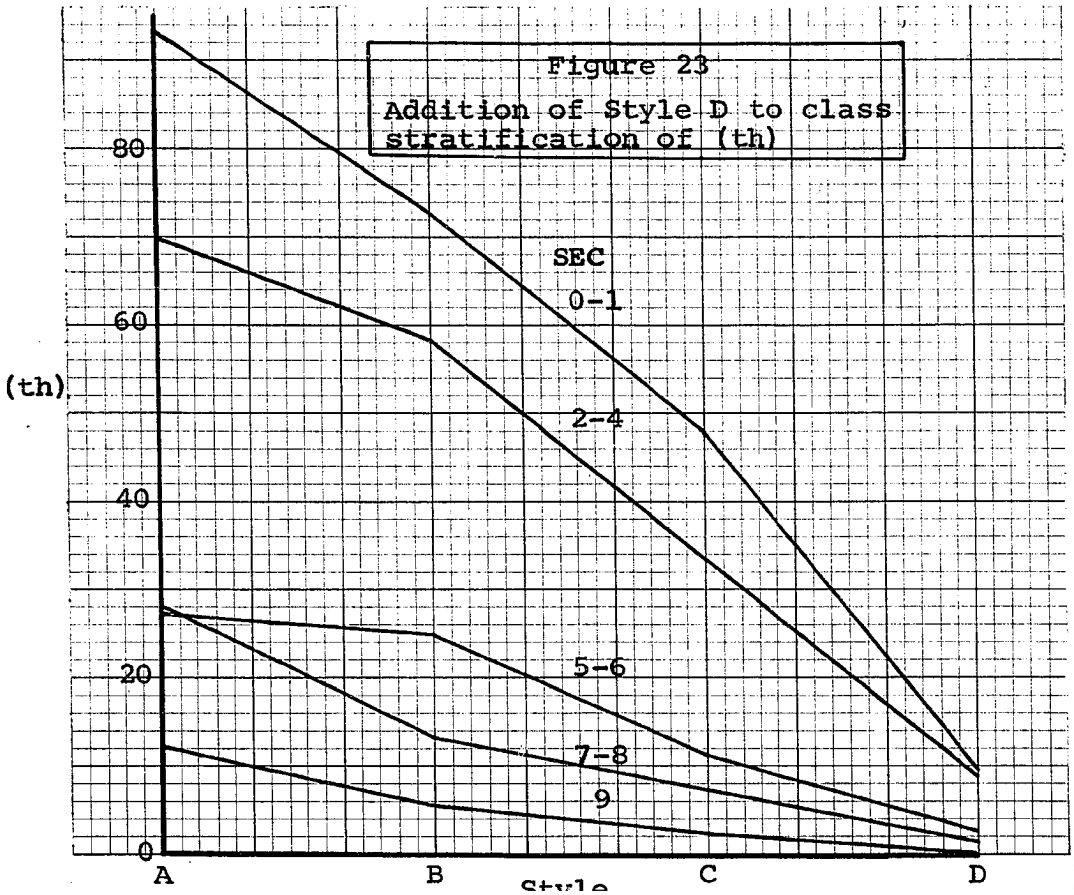

Figure 23
Addition of Style D to class stratification of (th)

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has apparently measured the behavior of the informants with some accuracy.

Figure 23 shows the Style D information added to the class stratification diagram. We find that the values for Style D are extended along straight lines for most of the cases. We can therefore say that the middle classes 5-6 and 7-8 show no hypercorrect behavior, nor any tendency to simulate the cross-over pattern of (eh), (oh), and (r).

We can therefore say with some confidence that the cross-over pattern of the lower middle class is a synchronic sign of a linguistic change in progress.

The hypothesis of real deviation

We now have the data required to re-assess the hypothesis raised earlier in this chapter: that real deviations from a regular structure of class stratification are consistently and reciprocally associated with real deviations from a regular structure of stylistic stratification. Does the evidence support this hypothesis?

In Figure 20, the double deviation of the lower class from the regular structure for (oh) was shown even more clearly than in Figures 3 and 6. We also saw an illustration of a double deviation on the part of an individual, Nathan B., for (th) and (dh).

On the other hand, we now have three examples of a lower middle-class cross-over, in Figures 11, 19, and 21, and

two examples of a reversal of stylistic progression for class 9, Figures 19 and 21. We might defend the hypothesis by claiming that Figures 19 and 21 show double deviation of the upper middle class 9; but this is a desperate expedient. It is the lower middle class which deviates from the others on these diagrams, cutting several class lines.

The lower middle class cross-over is not a deviation from regular structure of class stratification in our definition, if it is a recurrent second-order deviation. The repetition of the deviation is seen in Figures 11, 19, and 21; what then is the set which includes these three structures? It is the homogeneous set formed by the operation of selecting all variables which show linguistic change in progress.

There is a circularity in the argument here, for we used the repetition of the pattern to assert the change in progress. Therefore the hypothesis is not confirmed in this chapter: we must wait for independent evidence of the existence of change for (r), (eh), and (oh) as opposed to (th), and (dh), in order to support the hypothesis. This evidence will be provided in the discussion of differentiation through apparent time, in Chapter IX.

We have still not yet accounted for the reversal in style progressions for class 9. The similarity in Figures 19 and 21 for both the lower middle and upper middle classes, suggests that these two structures form a set as opposed to Figure 11 for (r). What single selection defines such a set?

The most relevant consideration which will appear, is that these represent the results of linguistic change originating from below, as opposed to Figure 11 for (r), which shows the results of linguistic change from above. The definitions of these terms, and the evidence for these statements, will be provided in Chapter IX.

Evidence of the out-of-town informants

The evidence we have used for this study of class differentiation of the variables is based entirely on the speech of 81 New York respondents. The speech of those informants who were raised outside of New York City can serve as a valuable check on the validity of our conclusions. For those variables which are associated with the native speech pattern of New Yorkers, acquired in pre-adolescent years, the out-of-town informants should show entirely different patterns. This is the case for (eh) and (oh). In Appendix E, the out-of-town respondents are analyzed by the same techniques which we have used in this chapter, and it is clear that there is no relation between their use of (eh) and (oh) and that of the New Yorkers.

For those variables which have the same social significance throughout most of the United States, there should be little difference between New Yorkers and out-of-towners. In Appendix E, we find that this is the case for (th) and (dh). Finally, for those variables which are part of an acquired

speech pattern common in New York City, the out-of-town respondents should show some tendency towards the new prestige pattern, though not as much as New Yorkers. The study of (r) in Appendix E shows that the expected relationship holds for out-of-town and New York respondents both for those who were raised in an r-pronouncing dialect area, and those raised in an r-less area.

The study of the out-of-town respondents therefore provides an additional step towards establishing the reliability and validity of the evidence as well.

Summary

In this chapter, we have shown a series of close correlations between the distribution of the five phonological variables, and the socio-economic index established by MFY. We have explored the concepts of stratification, and regular structure, and given partial confirmation to an hypothesis which associates social and stylistic variation as part of a single over-all process. We have shown that (r) exhibits a fine stratification on the basis of socio-economic class, while (th) and (dh) show sharp stratification. The variable (eh) shows an over-all pattern of class stratification with considerable internal irregularity; the variable (oh) shows a curvilinear distribution in which the working class and lower middle class seem to form the leading edge of a linguistic change in progress.

In this chapter, the abstract construct of social class has been used as a unitary independent variable. In the next chapter, we will re-analyze the concept of social class into its component parts, and determine which factors are most closely correlated with linguistic behavior. In addition, we will examine the distribution of the variables within each social class for evidence of the influence of sex or ethnic group upon the linguistic pattern.

NOTES TO CHAPTER VII

[1]The terminology in which differentiation is opposed to evaluation is utilized at many points throughout this study. The present chapter, for example, is concerned solely with differentiation of the variables, and not evaluation. The existence of social stratification, as here defined, cannot be established without considering both differentiation and evaluation. However, throughout Part II, the term stratification will be used in a slightly different sense, to designate differential structures which show a "horizontal" layering. For example, the diagrams for the differential distribution of the variables shown in this chapter are called class stratification and style stratification diagrams, because they have the horizontal structure which these terms suggest. It is then useful to speak of sharp stratification, meaning a wide separation of a few discrete levels on the vertical scale, as opposed to fine stratification which indicates a matching of one continuum with another, with an almost unlimited number of horizontal layers separated by almost vanishingly small distances on the vertical scale. These are the extreme types: normally we will be dealing with relatively sharp or fine stratification.

[2]I have tested this hypothesis again and again in dealing with the contrasting usage of several generations within one family, and it is rarely that the influence of the parents appears as primary. For example, I recently interviewed a family in which the parents were raised in Waco, Texas; the son, now 13 years old, grew up in Omaha, Nebraska; they are now living in Berkeley, California. Before the son appeared, I predicted to the parents that he would show no trace of their distinction between which and witch, or four and for, and that he would show a merger of caught and cot, hawk and hock which was foreign to them. Their disbelief was belied by the evidence of the son's speech. In New York City, the case of the certified public accountant and his family, mentioned in Chapter II, is a typical instance of the parents' bewilderment at their son's use of many stigmatized speech forms which they themselves never use, despite his success in high school and his strong orientation towards college. My own children show many dialect characteristics which are quite different from those used by either my wife or myself, despite the fact that we were both raised in the same county of New Jersey in which we are now living. The first vowels of mirror and nearer, for example, have coalesced, together with all similar sets: such an innovation cannot be accounted for by any theory which places parental influence on language in a primary position.

[3]Language may be thought of as an expression of style of life as well. It is quite distinct from the pattern of values, affiliations and interactions which are used to define social class from the consumptive aspect, but it seems to be on the same level. Therefore correlations with the productive indicators seem to explain more than correlations with other indicators of style of life. The productive indicators will also be more useful as we try to gain some historical depth in our view of linguistic processes; styles of life are hard to compare from generation to generation, but positions in the productive hierarchies are more comparable. The linguistic survey will therefore benefit from the firm separation of indicators established by the MFY index.

[4]Hortense Horwitz and Elias Smith, "The Interchangeability of Socio-Economic Indices," in Paul F. Lazarsfeld and Morris Rosenberg, Eds., Language of Social Research, (Glencoe, Ill.: The Free Press, 1955), pp. 73-77.

[5]The following rules were followed in this policy: [1] Husband's occupation was used for all married women except in cases where the wife is working and the husband is retired; [2] Widows who do not work were classified by their dead husband's occupation; [3] College students were assigned the highest occupational rank to represent their probable occupational destinations.

[6]There were 37 shifts in the assignment of social class through the use of the informant's own educational rank, as opposed to the use of the chief breadwinner's education. Nineteen of these shifts were in the direction of a higher social rank, and 18 towards a lower social rank. Twenty-eight shifts were only one rank on the scale; eight showed a change of two ranks, and one of three. Twenty-four of these changes of social class were in such a direction as to favor or disfavor the class stratification of the variables. The net result for New Yorkers was as follows: favoring stratification of (r), 6 yes, 7 no; of (th), 6 yes, 7 no; of (dh), 7 yes, 6 no. For out-of-town speakers, favoring stratification of (th), 7 yes, 4 no; of (dh), 7 yes, 4 no.

[7]Joseph A. Kahl, The American Class Structure, (New York: Rinehart and Co., Inc., 1957).

[8]In all diagrams for (eh) and (oh), the scale of the phonological index runs from 40 at the bottom to 10 at the top. Thus low values of the variables appear at the top of the diagrams, and high values at the bottom. This arrangement reflects the fact that (eh-10) and (oh-10) are vowels with high tongue position, and (eh-40) and (oh-40) vowels with low tongue position. Low (eh) and (oh) values correspond to high vowels, and high (eh) and (oh) values correspond to low vowels.

[9]There are problems in the definition of a linear set. The scale of family income, or of educational attainment, plainly form a linear scale from which linear sets may be selected. This is not so evident for occupational ranks. But when the several rankings are combined into a single scale, its linear nature remains open to question. We might have numbered the matrix of Table I as 0a, 0b, 0c . . . 1a, 1b, 1c, in which case it would appear as a non-linear scale. In Michael's final discussion, he demonstrates that the combined scale is correlated with expected class behavior for several other variables. In our own studies, the linear nature of the combined scale is at first a tentative assumption. As we see a large number of regular structures appear in which this assumption plays a role, there is a certain amount of feed-back in the confirmation of the linear status of the socio-economic scale. In the course of the present study, such a large number of regular structures will appear, that the linear status of the socio-economic scale will hardly be in doubt.

[10]See W. Lloyd Warner, Social Class in America, (New York: Harper Torchbook, 1960), p. 20; John Dollard, Caste and Class in a Southern Town, (New York: Doubleday Anchor Books, 1957), pp. 61-63.

[11]See Table 4 and the frequencies for the various styles. These frequencies represent the number of speakers represented in the average. Style B is regularly the highest, and Style A is the least reliable in this respect, especially for the 0-2 group.

[12]This deviation from regular structure will appear as a cross-over pattern in style stratification diagrams, and will recur for variables (eh), and (oh) below.

[13]Whenever a grouping of the classes places one of the classes for which 100% of the sample was studied together with a class for which 67% was studied, the averages are weighted accordingly. This is the case in the present example for the group 2-3.

[14]This question on fate was appended to the Danger of Death question in some of the later interviews.

[15]This is not a small section as far as we are concerned, for eight of the fourteen upper middle class informants in the ALS interviews are in academic work. From their subjective evaluation tests, reported in Chapter XI, it is evident that they too would have rejected Nathan B. as a member of that community.

CHAPTER VIII

FURTHER ANALYSIS OF THE VARIABLES

In the previous chapter, the five phonological variables were correlated with the socio-economic index developed by Mobilization for Youth to analyze the social structure of the Lower East Side. All five of the variables entered into regular structures, or near-regular structures, in which divisions of the ten-point index provided one of the linear sets. Not all of the variables participated in identical structures, and we found that the most clear-cut stratification was obtained in each case by using slightly different cutting points. The variable (r) showed the finest stratification; (th) and (dh) showed the sharpest differentiation of the class scale into two distinct halves; (eh) showed only slight class differentiation with considerable internal fluctuation; (oh) followed a curvilinear distribution, with the two center classes at the peak.

We also found that the second-order structures which combine stylistic and class differentiation divided the variables into two types: (th) and (dh), in which the relations of the classes in all styles was relatively constant; (r), (eh) and (oh), in which the lower middle class showed an abrupt crossing of the upper middle class line in the more formal styles. The behavior of (eh) and (oh) was very similar,

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except for the fact that the lower class does not share in the (oh) structure of stylistic and social variation. This view of linguistic differentiation seems satisfactory, not only because a difference has been found in the linguistic behavior of various classes, but because the evidence is consistent with our knowledge of the linguistic history of the city, based on the writings of Babbitt, Thomas, Frank and Hubbell. The suggestions of linguistic change afforded by the evidence of Chapter VII will be spelled out in detail in Chapter IX.

It is now necessary to re-examine the use of the socio-economic index as an independent variable. At this point, we have no proof that such an index, constructed from three indicators of productive status, is the social measure most closely correlated with the phonological variables. It was first adopted by MFY as a more reliable measure of social ranking than any single indicator. However, it is possible that one of the three indicators which compose this index is more closely correlated with linguistic behavior than the others, for one or more of the variables. When this question has been examined, we will also examine the other two independent variables which were discussed in the analysis of the sample: sex and ethnic group.

The logical ordering of the independent variables in time

In the introduction to the last chapter, it was argued that the most important influence upon a person's native

speech pattern is the group of friends and associates of his own age, during his pre-adolescent years. This statement will be assumed as probably true for the discussion to follow.

We would then expect that the social characteristics which date from those years would have the most influence on all of the variables. However, not all of the variables are a part of the "native" speech pattern: the language structure we are studying consists of acquired patterns as well as the native one. We might therefore order the phonological variables in three groups, according to the relative ages in which their patterns are set. The characterization of the variables is drawn from various sources in the LES Survey, and may be also considered as assumed for this discussion.

(th) and (dh): The initial level is established early in life, according to social differentials which are quite general; ability to modify this pattern must accordingly be acquired quite early.

(eh) and (oh): The initial levels are set as a part of the pre-adolescent pattern, but according to social differentials now in flux, and not general across the community; it is not possible to estimate how late in life the native speech pattern can be modified with consistent results.

(r): The initial level is zero for most New Yorkers; (r) pronunciation is acquired after the pre-adolescent years and is therefore never consistent. Modifications of the amount of (r) can probably take place quite late in life.

We can make a corresponding analysis of the logical order in which the independent variables can establish or modify the speech pattern of the individual. At the outset, we can say that a person's childhood associates are largely determined by his sex, ethnic group, and parent's social status. If his own status continues that of his parents, then all of these factors will also continue to give us a good measure of social influences on his speech. If the initial pattern is modified, the first influence in this direction would most likely be education. His occupation, on leaving school, and later in life, would follow next as a measure of possible modifying influence. Finally, the one factor which reflects most accurately his present status is his income. Matching these two sets of assumptions, we might say that these influences may be correlated with the language features in the following way:

1. An individual's use of (dh) and (th), as part of the pattern determined by his sex, ethnic group, and parental background, will be modified more by education than by occupation, and more by occupation than by income.

2. An individual's use of (r) will be relatively independent of sex, ethnic group, and parent's background, and more closely correlated with his occupation, education, and income as indicators of his current social position.

3. The position of (eh) and (oh) in this respect would fall somewhere in between, but we do not as yet know enough about the age at which these patterns are set.

[The expression, "modified by education," may be taken as shorthand for, "modified by influences of associates during the period of his education, and therefore measured by the highest educational level attained."]

These assumptions will be useful in interpreting the results of this chapter.

Education of respondent as an independent variable

The educational scale which is used to classify the informants is the one used by MFY. It is a nine-point scale in terms of the number of years completed.

0	None
1	Some elementary school
2	Elementary school [8th grade]
3	9th grade
4	10th grade
5	11th grade
6	12th grade; high school graduate
7	Some college
8	Graduated college or more

In order to assess the usefulness of this indicator alone, we can choose one of the variables which was not handled altogether adequately by the socio-economic index. In the case of (dh), we noted that the index could not distinguish the (dh) usage of a very large body of speakers: those from class 0 to 4. We will therefore test education of the respondent alone as a correlate of (dh).

Figure 1 shows the style stratification diagram for (dh) with education as the independent variable. The number of respondents for Style B [the maximum] is indicated below each

educational rank. [In order to test each independent variable for discrimination of the highest and next to highest group, it will be useful not to include the figures for Nathan B. in any arithmetic averages for (dh) and (th). The effect of his high (dh) and (th) readings obscures any smaller differences brought about by change of indicators. His position will be shown on any distribution diagrams, however.]

Figure 1 shows that there is one major break in the values of the variable--between educational level 3 and 4. This means that the first year of high school has some significance, for in New York City, the 9th grade is included in Junior High Schools. It may be relevant that elementary schools are restricted to smaller neighborhoods than high schools, and one may surmise that in high school, the individual has an opportunity to measure himself against speakers from a wider range of environments than in grammar school or junior high school.

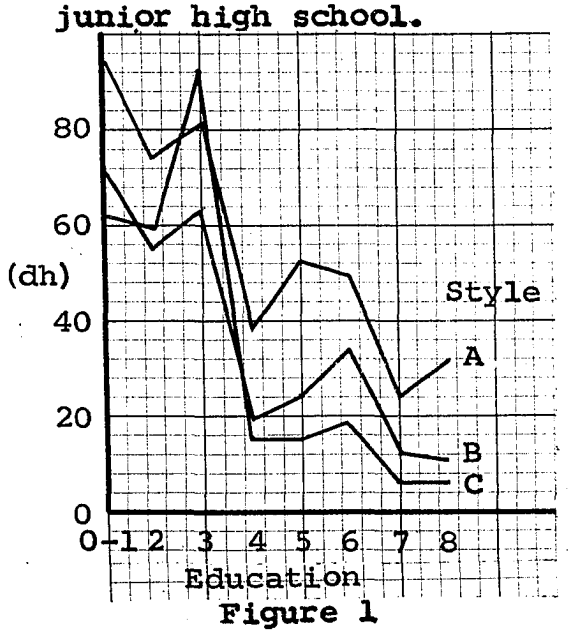
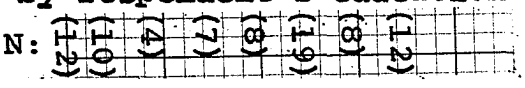


Figure 1

Style stratification of (dh) by respondent's education



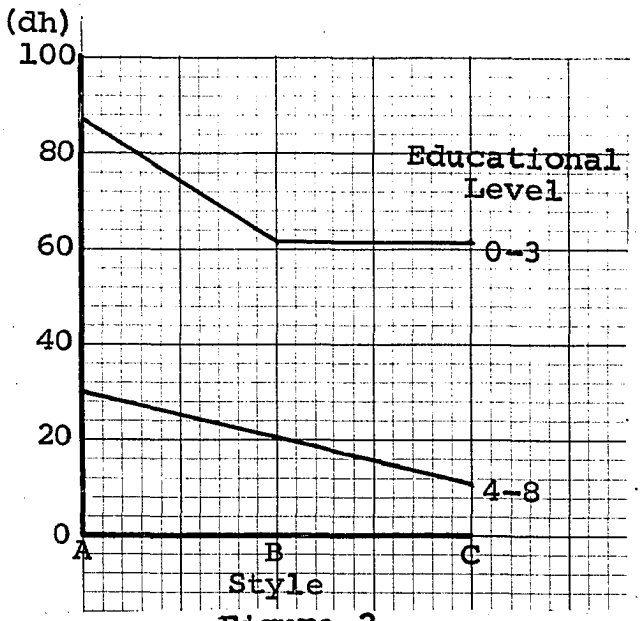


Figure 2

Educational stratification of (dh)

To the left of this break, we find no significant differences in the (dh) usage of levels 1, 2, and 3. [There is only one level 0 speaker, and 0 is always combined with 1 here.] Moreover, the style stratification of these levels is quite mixed. For levels 2 and 3, Style C actually shows more stops and affricates than A or B; thus we can infer that most of these speakers do not adjust their usage to suit the formality of the context. To the right of the break, we see the possibility of a division between levels 4, 5, 6 on the one hand, and 7, 8 on the other--but it is a small difference compared to the 3-4 break.

Figure 2 is therefore the fairest representation of the stratification of (dh) with respect to education: two widely separated strata. Thus we find that education is a sharp differentiator of (dh) behavior, but it cannot provide as many levels of stratification as the original index.

Occupation of respondent as an independent variable

The scale of occupation used here is essentially the four-rank scale used to construct the index of Chapter VI, now expanded to seven units:

1. Professional, semi-professional
2. Proprietors, Managers, and Officials
3. Clerical, Sales and Kindred Workers
4. Craftsmen, Foremen, and Kindred Workers
5. Operatives and Kindred Workers
6. Service Workers
7. Laborers

[This scale is adopted from the MFY Codebook, which is in turn

an adaptation of the U. S. Bureau of Census practice--there is only one small proprietor in the sample, so that 2 is always shown with 1.]

Figure 3 shows the distribution of (dh) with respect to occupation for Style B only. The peaks shown for occupations 4 and 7 are associated with very small numbers; on the whole, we would have to be content with the distinction between occupations 1-2, professionals and proprietors; 3, clerical and sales; 4-7, manual workers. Thus occupation alone does not give us as many subdivisions as the combined socio-economic index.

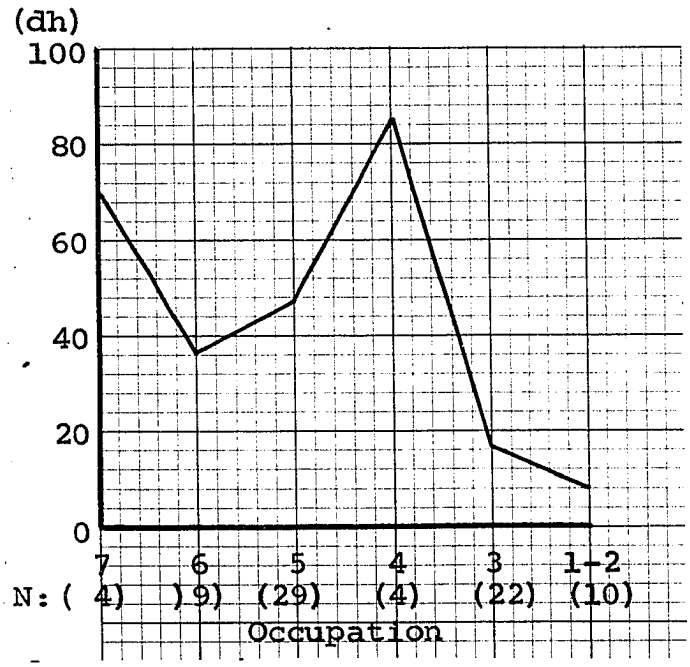


Figure 3

Distribution of (dh) in Style B by respondent's occupation

Occupation and education combined

We have seen that both occupation and education showed sharp breaks at a particular point. These breaks do not divide the population into the same groups, so by a combination of the two indicators, we may improve our results. The following table shows the distribution of informants by occupation and education:

		Occupational level		
		1-2	3	4-7
Educational level	8:	9	1	-
	4-7:	2	18	24
	0-3:	-	2	23

As this table shows, there is a close correlation between occupation and education for the two upper ranks; but the manual workers are about equally divided between those who have had at least one year of high school, and those who have not. We will develop four classes from this table by the following procedure: first, considering that the presence or absence of some high school experience is the most determining factor, we will divide the population into two parts: those with and those without one year of high school. Second, we will divide the remaining group by occupation, into a professional class, a white collar class, and a blue collar class. This gives us the following array:

Educational level	Occupational level 1-2	3	4-7
8:	SC 4	SC 3	SC 2
4-7:	SC 4	SC 3	SC 2
0-3:	SC 1	SC 1	SC 1

We will provisionally refer to these four classes as <u>social class</u> [abbreviated SC] as opposed to the MFY <u>socio-economic class</u> [abbreviated SEC]. Figures 4 and 5 are bar graphs which illustrate the difference between the two indexes, in regard to (dh). While SEC does not differentiate the two lower classes, the index of social class gives us an evenly spaced distribution: We have eliminated the non-recurrent first-order deviation of Figure 4, and obtained the regular first-order structure of Figure 5.

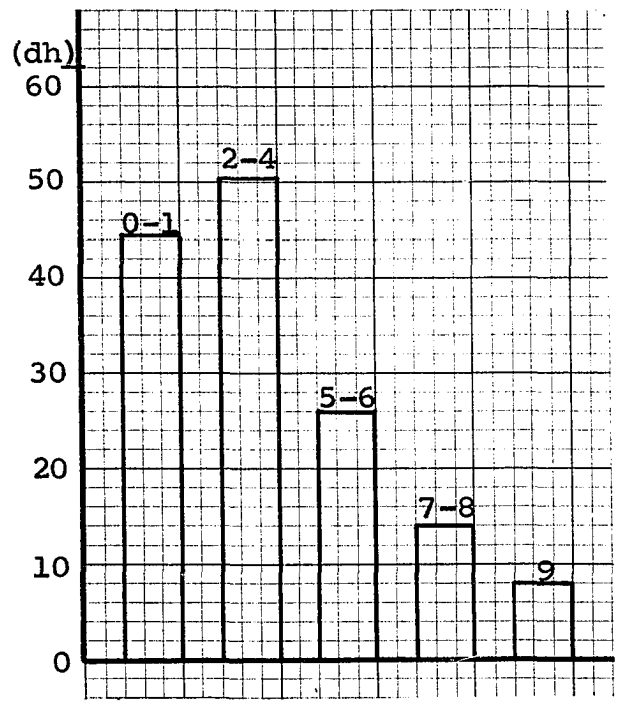


Figure 4

Distribution of (dh) in Style B by socio-economic class index

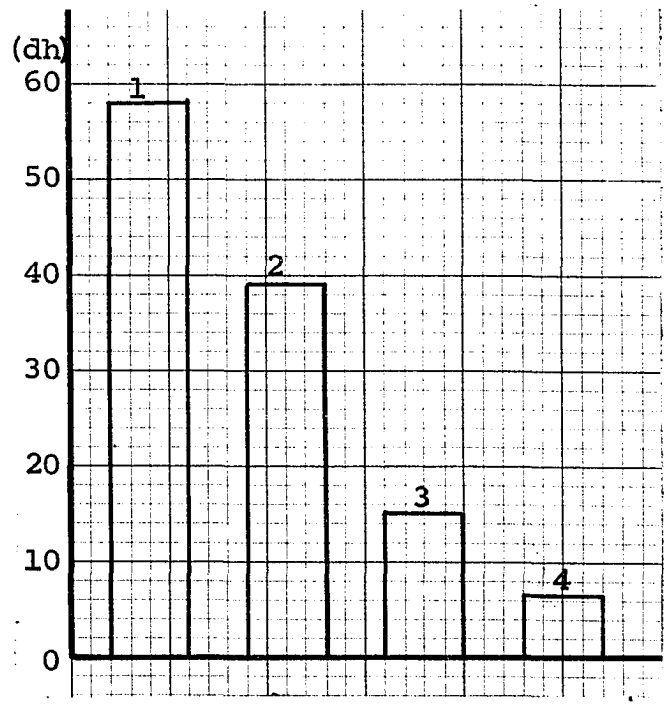


Figure 5

Distribution of (dh) in Style B by social class index

The arithmetic averages which we have used so far are not as accurate a view of linguistic behavior as a distributional profile. Figure 6 shows such a distributional chart for (dh) according to socio-economic index. We see here that class 9 is concentrated in the upper end of the spectrum, with the outstandingly deviant case of Nathan B., marked a at lower right. Class 5-8, the lower middle class, is well concentrated at (dh) 0-20, but with three cases spread out below. However, class groups 3-4 and 0-2 are not well differentiated, as we have seen in the arithmetic averages. The working class has a slight preponderance at the upper end, but this is matched by a similar extension at the lower end. This chart therefore shows only three distinct groups.

The distribution by social class index, as shown in the comparable Figure 7, indicates how the two lower groups are differentiated by an index of respondent's occupation and education alone. The letters inside the circles indicate the SEC membership of those subjects whose relative rank has been shifted by the new index. The upper middle class remains essentially the same, having exchanged one member with the lower middle class. This group in turn has lost a part of its center area to the new group 2, and has gained a few at the top and bottom of its concentration. On the other hand, two of the cases at the very bottom have been shifted left to group 2. The lower range of the working class, now labelled number 2, has been shifted in large part to group 1, giving the contrast between the four groups as shown in Figure 7 as

Figure 6

Detailed distribution of (dh) in Style B by socio-economic index

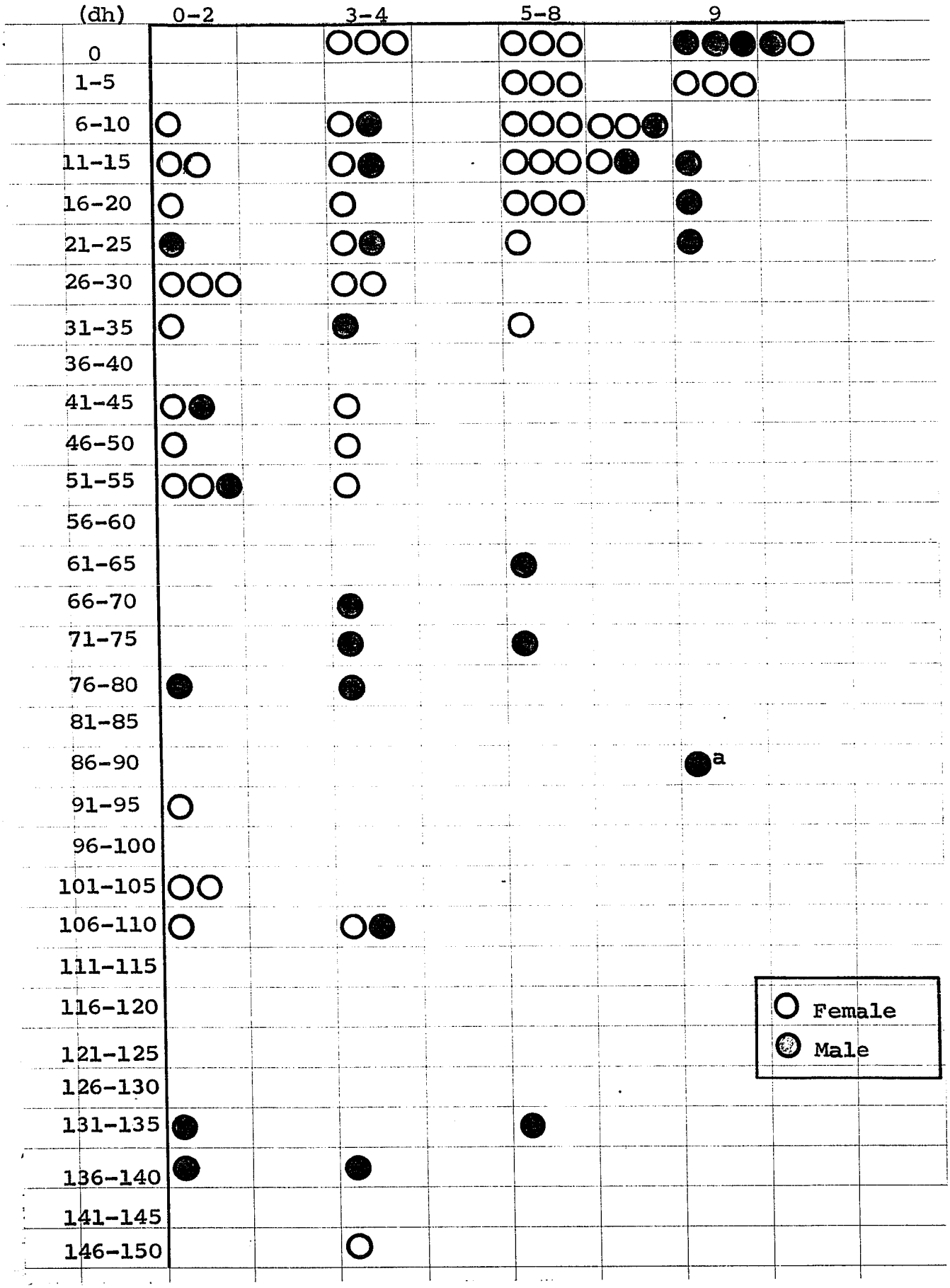
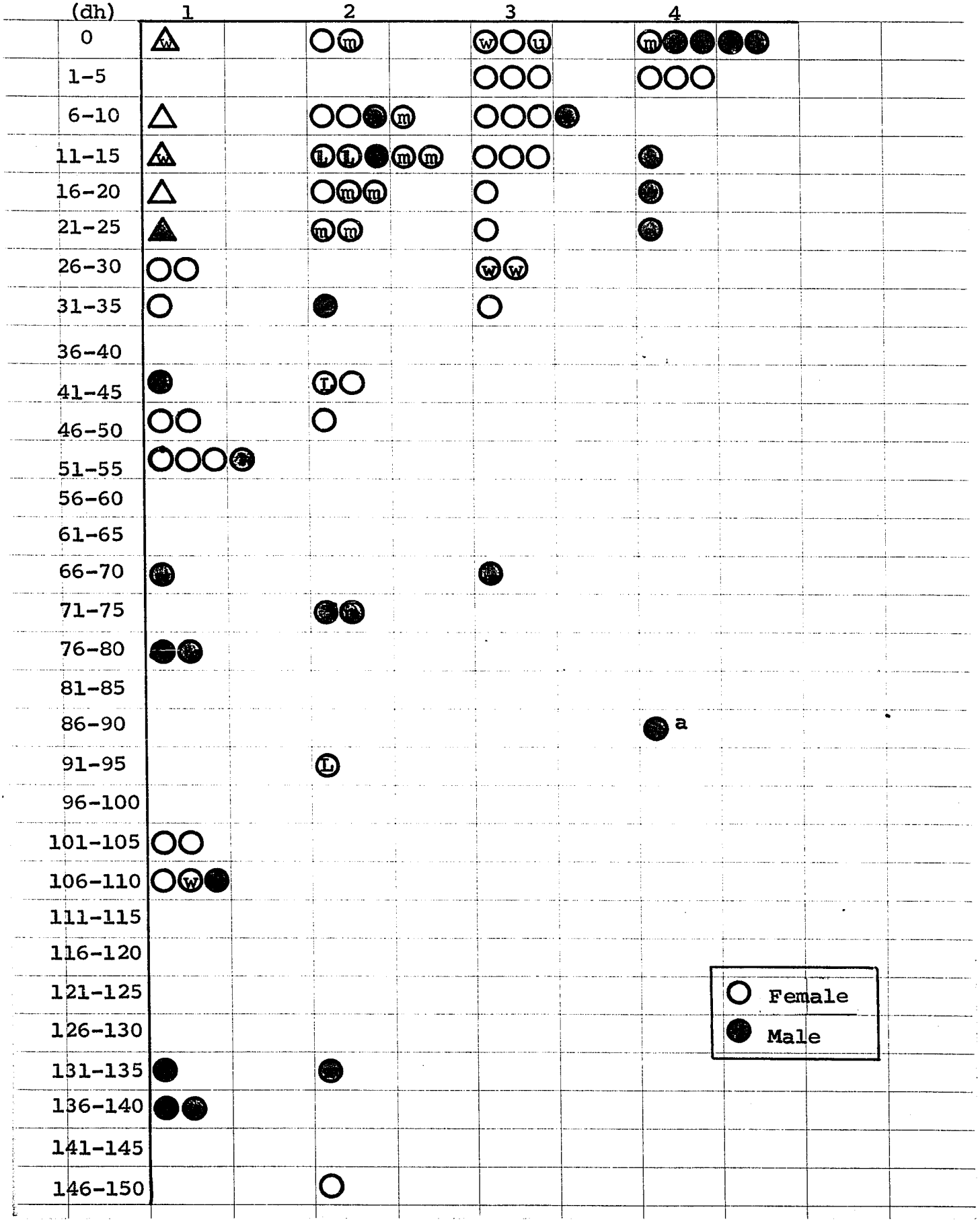


Figure 7

Detailed distribution of (dh) in Style B by social-class index



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a whole. In the lower part of the diagram, below (dh)-60, there have been seven leftward movements, favoring stratification, and one reverse shift.

We now have a main sequence from lower left to upper right, and those cases which deviate from this sequence are clearly isolated by Figure 7. In the upper left corner are a series of five cases symbolized with triangles. These are all older Jewish informants, over 60, with strong Yiddish backgrounds. The first one, at (dh)-00, is one of the marginal cases who came to the U. S. when she was 5 years old: her evidence is not included in any tabulations.

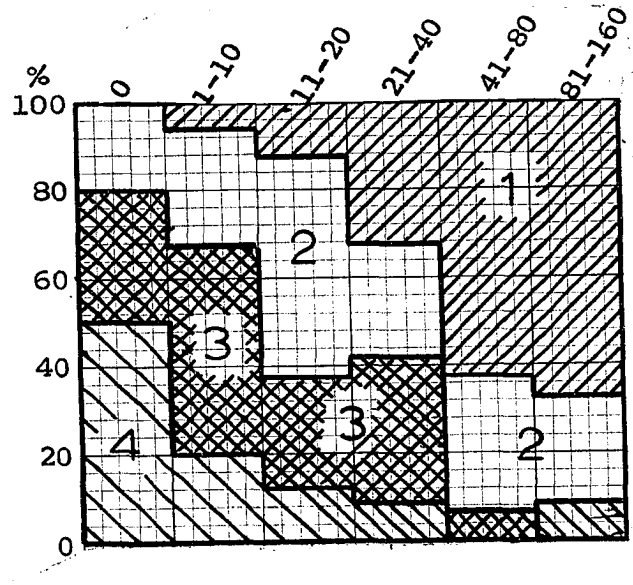


Figure 8

Per cent of social class membership for six levels of (dh) in Style B

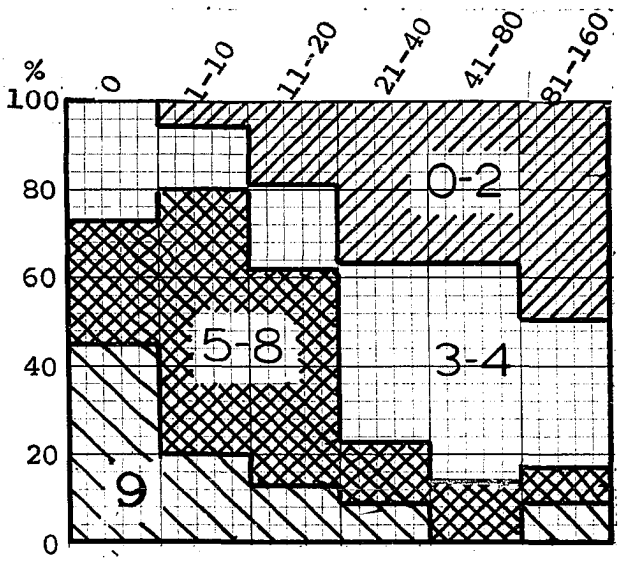


Figure 9

Per cent of socio-economic class membership for six levels of (dh) in Style B

The converse view of the difference between SEC and SC indexes may be seen in Figures 8 and 9. These are sets of bar graphs which show the percentages of each social group for the various intervals of (dh). This is then the second approach to describing social variation which was discussed at the beginning of the previous chapter, wherein we ask: what are the characteristics of the people who speak in such and such a manner?

VIII-16 The intervals of (dh) are smallest on the left, and become progressively larger towards the upper end of the spectrum, on the principle that it is the increase in the frequency of (dh) over a lower frequency which is socially relevant, rather than the absolute differences. In other words, to have twice the social or psychological effect, we should have geometric intervals rather than arithmetic ones.

Figure 8 shows the relative percentages of the social classes, and Figure 9 the socio-economic classes. We see that the major difference is in the position of group 2 as compared to the working class 3-4. The first group predominates among those who use (dh) 11-20, but the latter does not predominate for any usage of (dh).

Assuming that our sample represents the city as a whole, we can read Figure 8 to make some general statements about the interpretation of (dh) usage. If we speak for some time to a New Yorker in careful conversation, and we note that he uses no stops or affricates for (dh), we can affirm that he has had some high school training, and that he is not likely to be a manual worker--in fact, the chances are about even that he is a professional. If, on the other hand, he uses a few stops and affricates now and then, but not in a consistent pattern, we can guess that he is most likely a white collar worker--certainly had some high school, but not likely a professional. If he uses a moderate number of affricates and stops, we can guess that he is a manual worker who has had some high school training, but if he uses a great deal, the

strong likelihood is that he has never been to high school--at least, in two out of three cases.

It would be difficult to speak as clearly about this situation on the basis of Figure 9.

Our final view of the success or failure of the social class index in treating (dh) usage may be seen in the style and class stratification diagrams of Figures 10, 11, and 12.

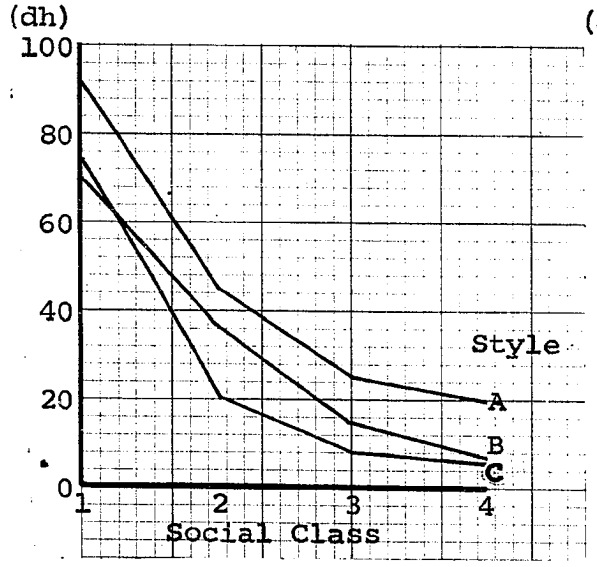


Figure 10

Style stratification of (dh) by social class index

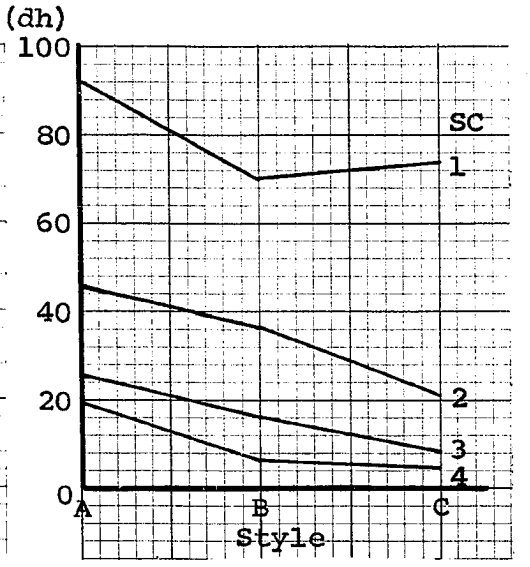


Figure 11

Class stratification of (dh) by social class index

Figure 10 shows style stratification for Styles A, B, and C, and Figure 11 shows the corresponding over-all class stratification. These diagrams have the unambiguous separation of classes in all three styles which we look for in this process of differentiation. Figure 10 has the steep vertical slope which was previously associated only with (th). Figure 11 indicates a progression of geometric intervals between the

classes which seems more appropriate to (th) and (dh) than arithmetic spacing.

The second-order structures of Figures 10 and 11 do not confirm the hypothesis on real deviation in every detail, for the lower class shows one deviation from stylistic stratification, none from class stratification. The status of the SC divisions as a linear set is open to the same doubt as the SEC scale: the selections of SC 2, 3, 4 differed from the selection of SC 1 by more than successive ranking on a linear scale. The linearity of SC 1, 2, 3, 4 must be confirmed by its repeated participation in regular structure.

In Figure 12, we have compared the stratification of SC groups and SEC groups for (dh) in Style B alone. This is another version of the bar graph of Figure 5, and will be useful as a standard of comparison for other variables.

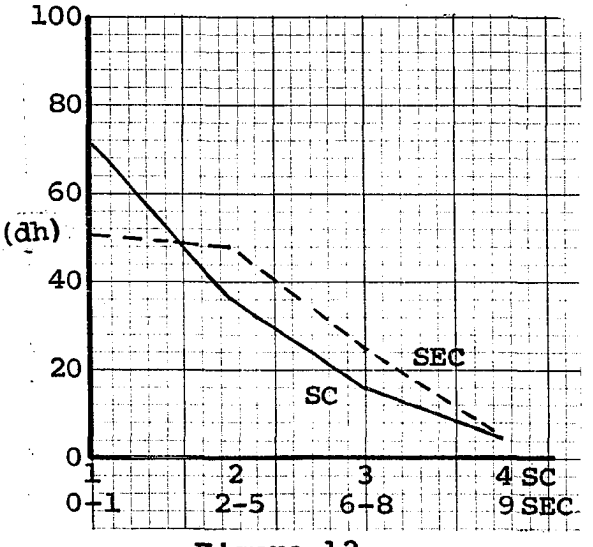


Figure 12

Comparison of (dh) stratification in Style B for SC and SEC index

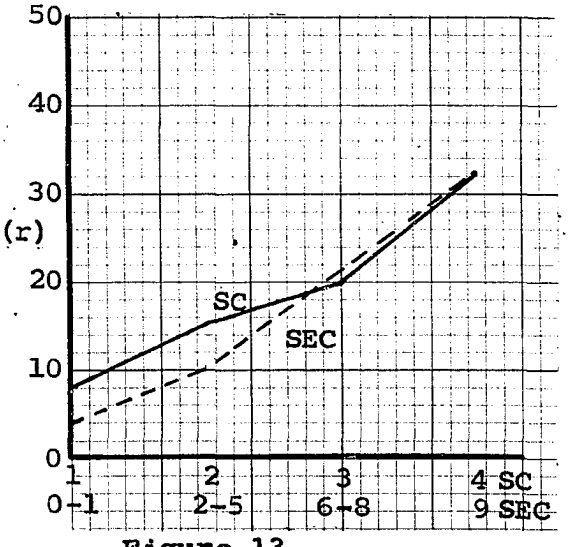


Figure 13

Comparison of (r) stratification in Style B for SC and SEC index

Application of social class index to other variables

Since the use of occupation and education together has proved useful in dealing with (dh), we may now explore application to other variables. As far as (th) is concerned, the SC index shows excellent stratification. The SEC index also treats this variable successfully, however, differentiating the lower groups, and so we can only make a qualitative improvement in sharpness rather than a quantitative increase in fineness, as in the previous case.

When we turn to (r), we find that the SC index does not give us as many levels as the SEC. Furthermore, it does not give as sharp stratification. If we compare Figure 13 with Figure 12, we find that just as SC was superior in sharpness for (dh), so SEC is superior for (r). The lower groups have less (r) and the upper groups have more. This is equally true when we compare occupation individually and education individually to the combined SEC index. Neither differentiates as well as SEC among the subjects in the lower half of the scale.

However, when we consider the occupations of those who are working actively, we obtain a very striking correlation with the informants' occupations. The concept we will set up here is the working population: this will include all those who are now working actively, and also those men recently retired who worked actively all their lives. By working actively, we mean holding a job outside of the family environment which occupies a full working day. Figure 14 shows the

Figure 14

Detailed distribution of (r) in Style B by occupation of the working population

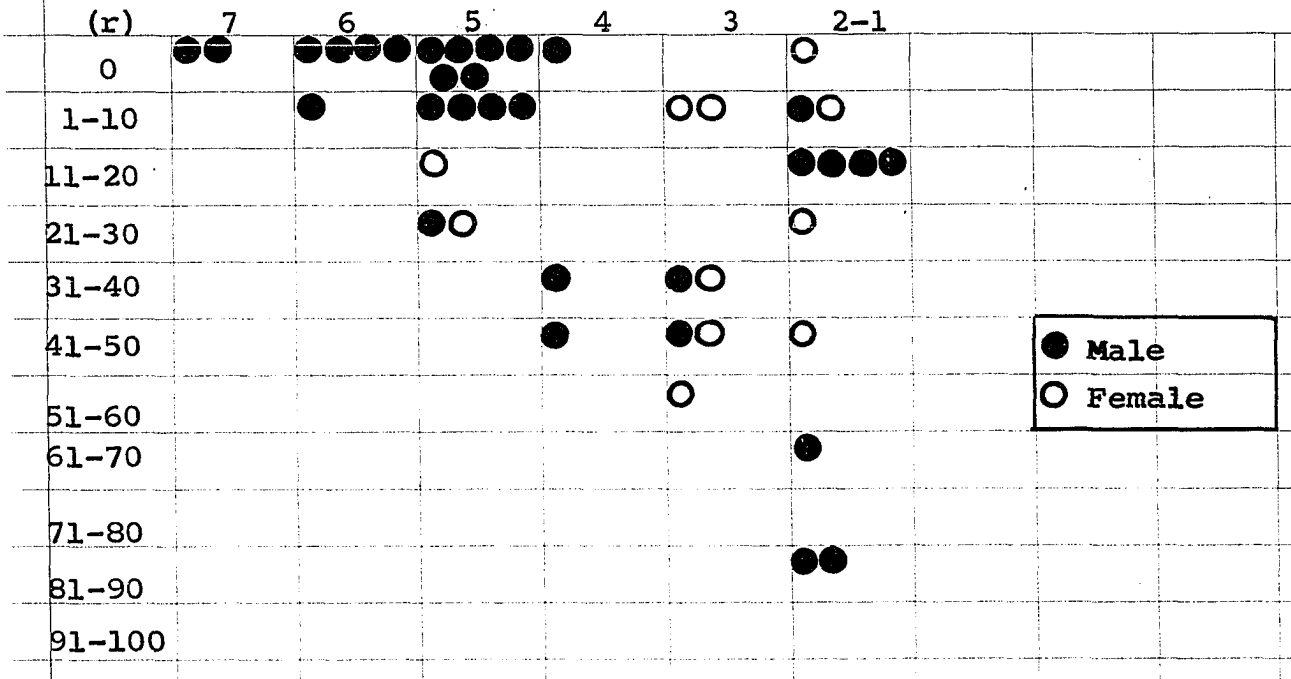
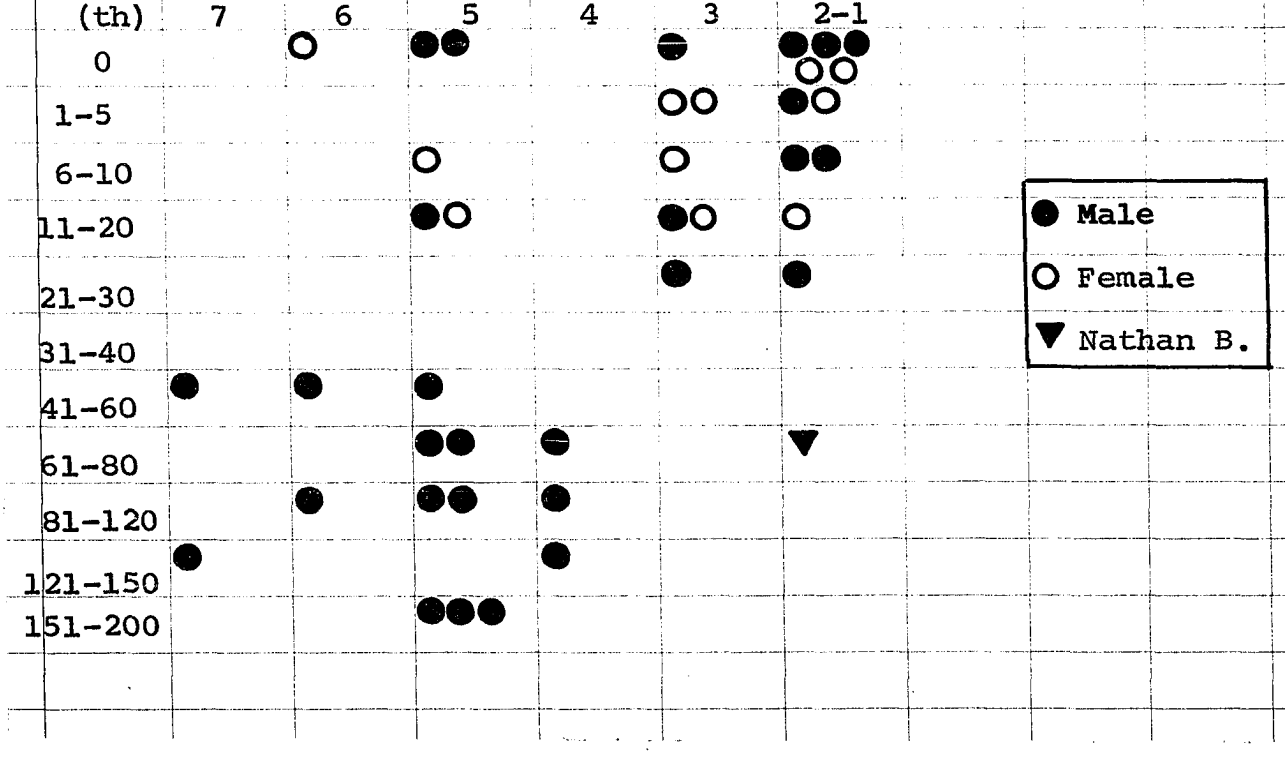


Figure 15

Detailed distribution of (th) in Style B by occupation of the working population



distribution of (r) for the working population of 40 New York subjects. Though the numbers are small, the main sequence is well established. Most striking is the absence of any deviant cases in the lower left half. The group in the upper left corner shows the typical division of the upper middle class into an older group, with little (r), and a younger group with a high percentage of (r). We will consider this in more detail in the next chapter.

If we consider the distribution of (dh) for the working population, we find that the pattern is by no means so clear. Instead of a fine sequence leading from one corner to the other, there is a sharp division into two distinct types. The example of (th) shows this even more clearly, as in Figure 15. Here we find a group of fifteen men with (th) 40 or higher, and clearly separated from them, a group of 25 men and women with (th) of 30 or lower. There are six subjects with manual occupations in the upper group: all fall into social class 2, with at least one year of high school. Two of the women are Catholics: both are beauticians. The men are Jewish: one is Abraham G., the taxi driver whose careful speech is described in Chapter IV. The other is Steve K., the philosophy student who became a copyreader's assistant in a print shop.

This group of the working population is more regular than the entire population, whether we use SC or SEC index to measure it. In Figure 16, we see once more that SEC gives sharper and more regular stratification of the working popu-

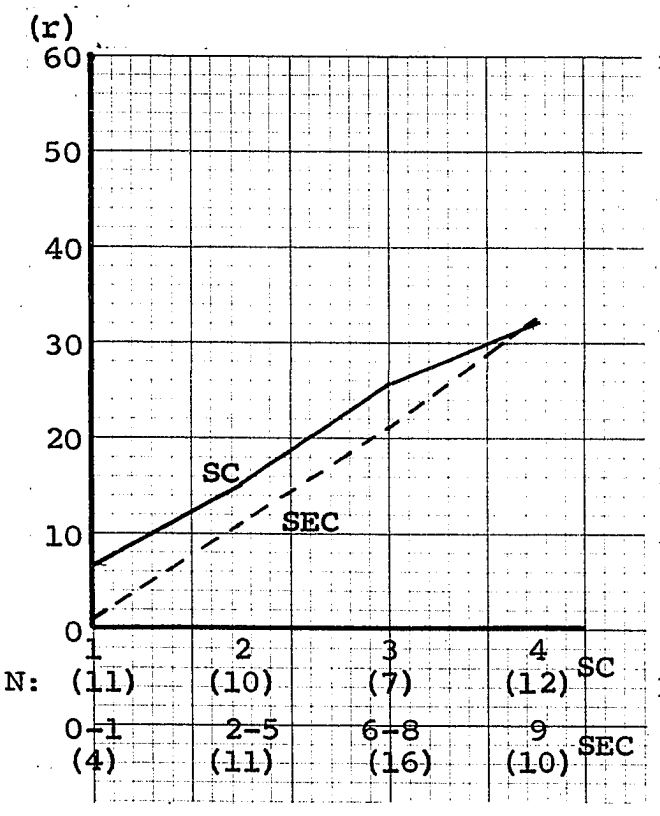


Figure 16

Comparison of (r) stratification for working population by SC and SEC indexes

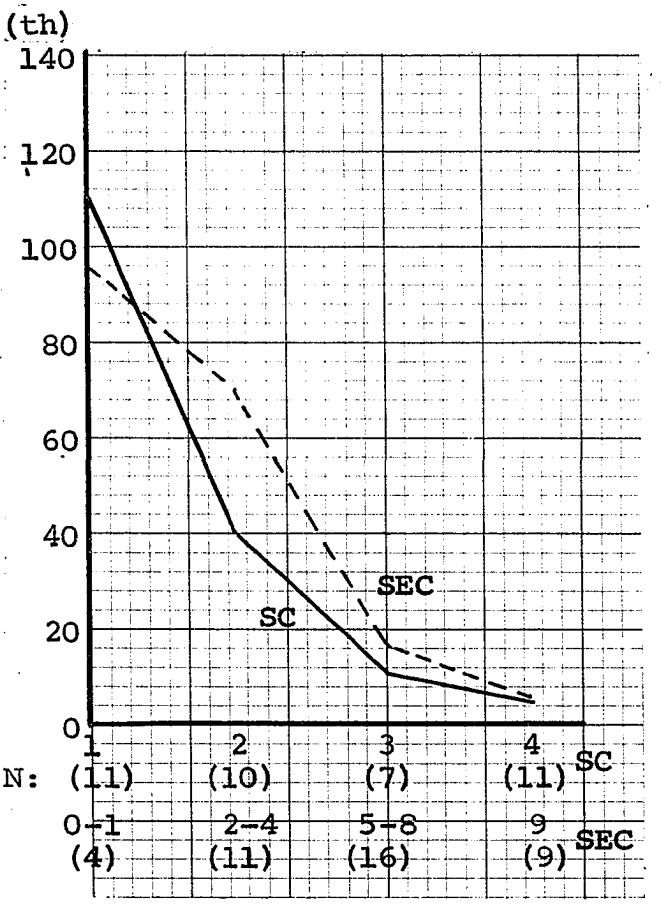


Figure 17

Comparison of (th) stratification for working population by SC and SEC indexes

lation for (r) than the SC index does, and in Figure 17, SC is seen as superior for the working population in comparison to SEC for (th). The value for (th) in careful speech for the working population of SC 1 is very high, higher indeed than the lower class values for the entire population in casual speech. Four of the men are retired: if we subtract these, we obtain a group of seven lower class men with an average (th) index of 138.

The discussion so far has shown that the social class index which reflects an individual's own occupation and education, is more relevant to (th) and (dh) than a combined index which reflects a person's education, his family occupation, and income. There are two differences between these indexes: the SC index uses the individual's own occupation [as well as education] and does not use income. When the SC index is reconstructed with the occupation of the chief breadwinner, the number of changes which favor stratification [five], are just equal to the number which do not [five], and these differences are distributed alternately in the social spectrum. Therefore the chief difference lies in the use of income and we can assess the correlation of the variables with income without making separate tabulations. It has already been stated that this factor reflects the most current influences on the speech pattern of the individual, and is logically later in time than occupation or education. On the other hand, it is the index which uses income which shows the clearest stratification for (r). Thus the suggestion of the opening pages, that (r) would be more sensitive to a measure of a person's current status than his original childhood experiences, is given some confirmation.

We can also observe that the type of differentiation characteristic of the variables is different. The sudden contrasts in the usage of (dh) and (th) may very well reflect the native patterns of relatively isolated groups; the gradual and fine differentiation of (r) shows a process at work in a

population where the various sub-groups have a greater degree of contact. The straight line shown for SEC in Figure 16 suggests that (r) in Style B is a linear function of SEC.

We next turn to the examination of (eh) and (oh). We found originally that the class stratification of (eh) was not as sharp as with the other variables, and that there were more fluctuations from class to class. When we apply the social class index, the situation is essentially the same, and we may dispense with presentation of the graphs. No more structure appears for these variables than when we employ the original SEC index. We shall therefore turn to a different independent variable which is more relevant to (eh) and (oh): ethnic membership.

Ethnic group as an independent variable[1]

There are three ethnic groups large enough to be studied in the sample of 81 New York City speakers:

Jews	45
Italians	19
Negroes	9

The balance of the population consists of eight informants of various backgrounds: two Ukrainians, and one each of Irish, German, Greek, Spanish, and Norwegian backgrounds. One informant came from a Negro background but is now a part of the white group for all practical purposes. In order to supplement the Negro population, we will re-introduce the two New York speakers who were removed from the original sample in

order to reduce the Negro working class group to 67 per cent, along with the Jewish and Catholic groups.

The class distribution of the three main ethnic groups is shown in Table 1 below.

TABLE 1

CLASS DISTRIBUTION OF ETHNIC GROUPS

	SEC								
	0	1	2	3	4	5	6	7-8	9
Jews	4	4	3	6	4	4	5	6	9
Italians	2	1	3	4	3	-	2	3	1
Negroes	-	1	2	4	2	1	-	-	1

	0-2	3-5	6-9
Jews	11	14	20
Italians	6	7	6
Negroes	3	7	1

The relative percentages of Jews and Italians reflect fairly accurately the proportions in the original population, despite the generally lower rate of completion for the Italian group. There are two weak points in this distribution: class 5 and 9. The first deficiency may account for the shifting behavior of class 5, in its orientation towards 6-9 for (th) and (dh), and towards 0-4 for (r), (eh) and (oh). The deficiency in class 9 is not a product of any sampling bias, but reflects accurately the real situation. Of the total Italian population in the original MFY sample, only one was class 9. Therefore any Jewish-Italian differences which are emphasized by the behavior of class 9 represent an indis-

soluble link between ethnic membership and class behavior.

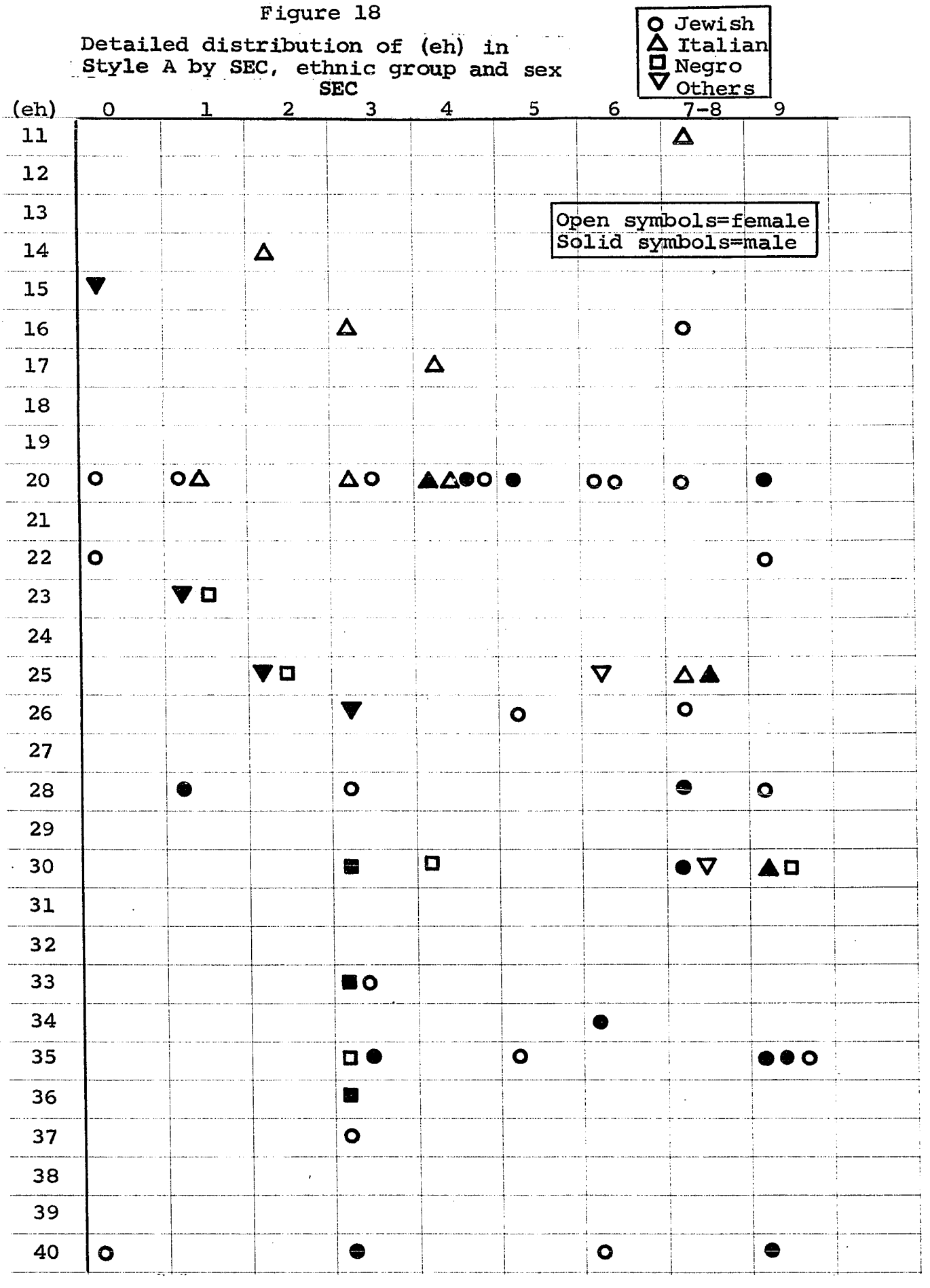
The distribution of the Negro group has been discussed in Chapter VI. The weakness in the upper middle class, while probably a good reflection of the over-all distribution of Negro informants, represents the loss of speakers during the two-year lag between MFY and ALS surveys. Most of the lower class Negro speakers are not native New Yorkers, and appear in the out-of-town studies in the previous chapter.

It will not be sufficient to study Style B alone in dealing with (eh) and (oh), because much of the relevant structure is displayed in the shift of styles. Style A will give us the nearest approach to the native speech pattern; Style B is again the most reliable in number of cases; Style C or D will show the end-point of formal shifting.

Figure 18 gives the complete data for the distribution of (eh) in casual speech by ethnic group, socio-economic class, and sex. Although we can detect a general diagonal structure, from upper left to lower right, the chief structure in this diagram seems to be a horizontal layering. There are first of all a group of speakers who use very high, close vowels from (eh)-10 to (eh)-17. Then there is a heavy concentration of 14 speakers at exactly (eh)-20. Another group of 12 is to be found between (eh)-22 and (eh)-26; we can more or less arbitrarily divide this group from the ten speakers who are centered around (eh)-30. Then there is an even lower group of 11 speakers between (eh)-33 and (eh)-39, and finally a set of invariant speakers at (eh)-40.

Figure 18

Detailed distribution of (eh) in Style A by SEC, ethnic group and sex



VIII
28

It is immediately apparent that there is a great difference between Italians and Jews. Most of the speakers in the high (eh) range of 10-17 are Italians; the Jewish speakers are heavily concentrated at (eh)-20, and are then scattered downward. In Style A as a whole, there are no Italian speakers below (eh)-33, but there are twelve Jewish speakers.

Figure 19 shows the pattern, or lack of pattern, characteristic of (eh) in Style B. It may be seen that all groups--except the Negroes who are relatively stable around (eh)-30, are moving downward, but the Italians are still relatively higher than the Jews. There is a definite trend towards the lower right section, although the presence of the row of lower class speakers on (eh)-40 disguises this. These speakers have the same general background as the five in the upper left corner of Figure 7; two are identified with the same superscripts.

Table 2 shows a comparison of Jews, Italians and Negroes for Styles A, B, and D. In Styles A and B, the Italians are centered at a much higher point than the Jews, but by the time we reach Style D, there is little difference. According to this table, the Negroes do not treat (eh) as a variable, since they are centered around (eh)-30 in all three styles. In line with the close connection between real deviations from stylistic and social variation, the Negro group shows no response in either dimension.

Figure 19

Detailed distribution of (eh) in Style B by SEC, ethnic group and sex

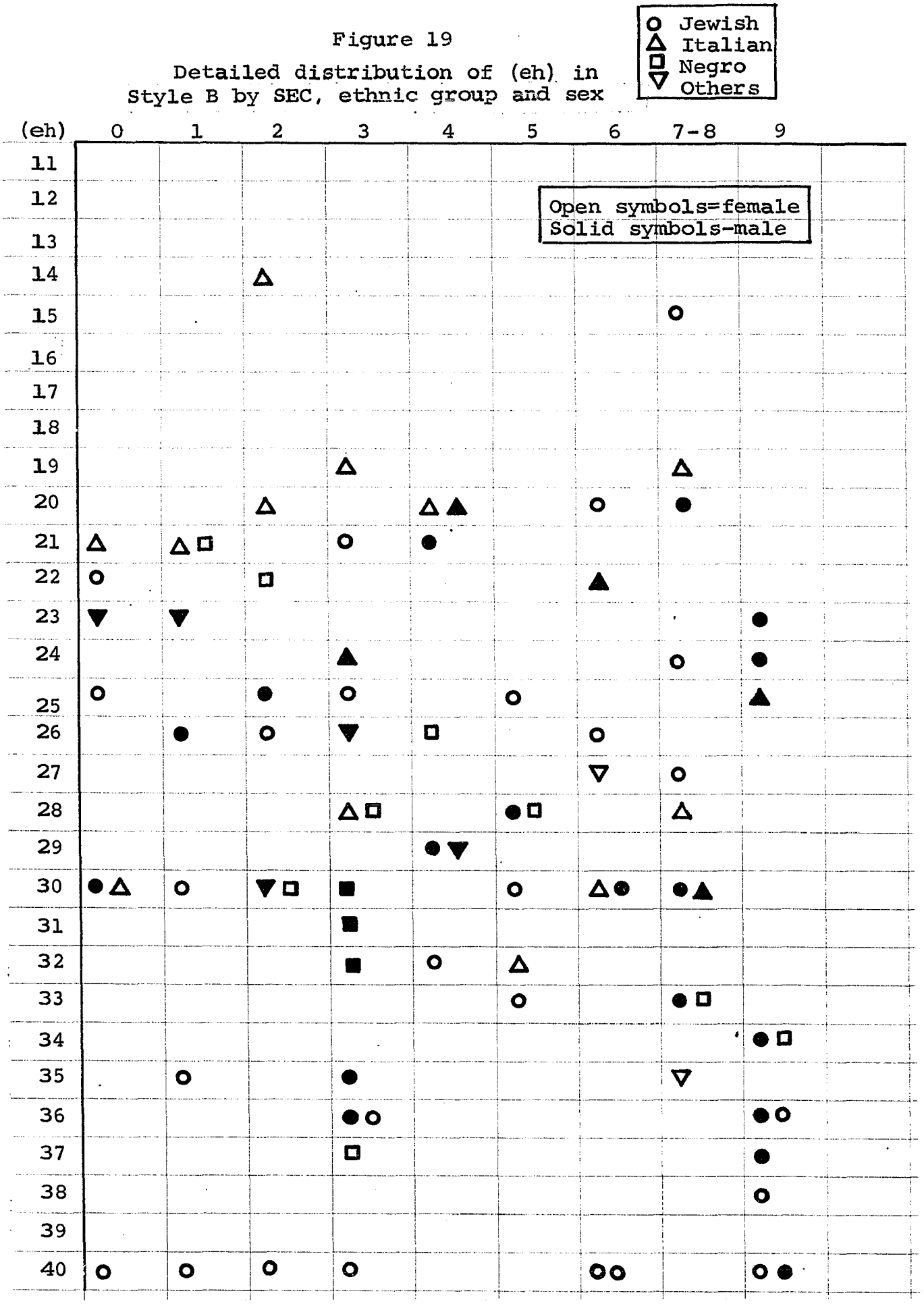


TABLE 2

DISTRIBUTION OF (eh) BY ETHNIC GROUP

	Jews			Italians			Negroes		
(eh)	A	B	D	A	B	D	A	B	D
10-17	1	1	-	4	1	-	-	-	-
19-21	10	3	-	4	7	1	-	1	1
22-26	4	10	4	2	3	3	2	2	1
27-32	6	10	8	1	6	2	3	5	5
33-39	8	12	13	-	-	6	3	3	1
40-42	4	8	12	-	-	5	-	-	-
	33	44	37	9	17	17	8	11	8

Figure 20 shows graphically the relative positions of Jews and Italians on the scale of height of (eh) for Styles A, B, and D. The hatched portion indicates that proportion by which Italian speakers lead the Jewish speakers in height of (eh). In Style A, there is a great difference at the left hand side, (eh)-10-17. Conversely, there are many Jewish speakers in the right hand area, (eh)-33-39, where no Italians are registered. In Style B, the concentration of Jewish speakers around (eh)-20 has disappeared, while the Italian group is concentrated at this point. The Jewish speakers still are represented alone in the (eh)-33-40 area.

A marked change is found in Style D. Both groups follow essentially the same distribution in this style, with the Italians only slightly higher in (eh) values than the Jews.

Here we see confirmed the earlier suggestion that New

Figure 20
Distribution of (eh) use by Italians and Jews in three styles

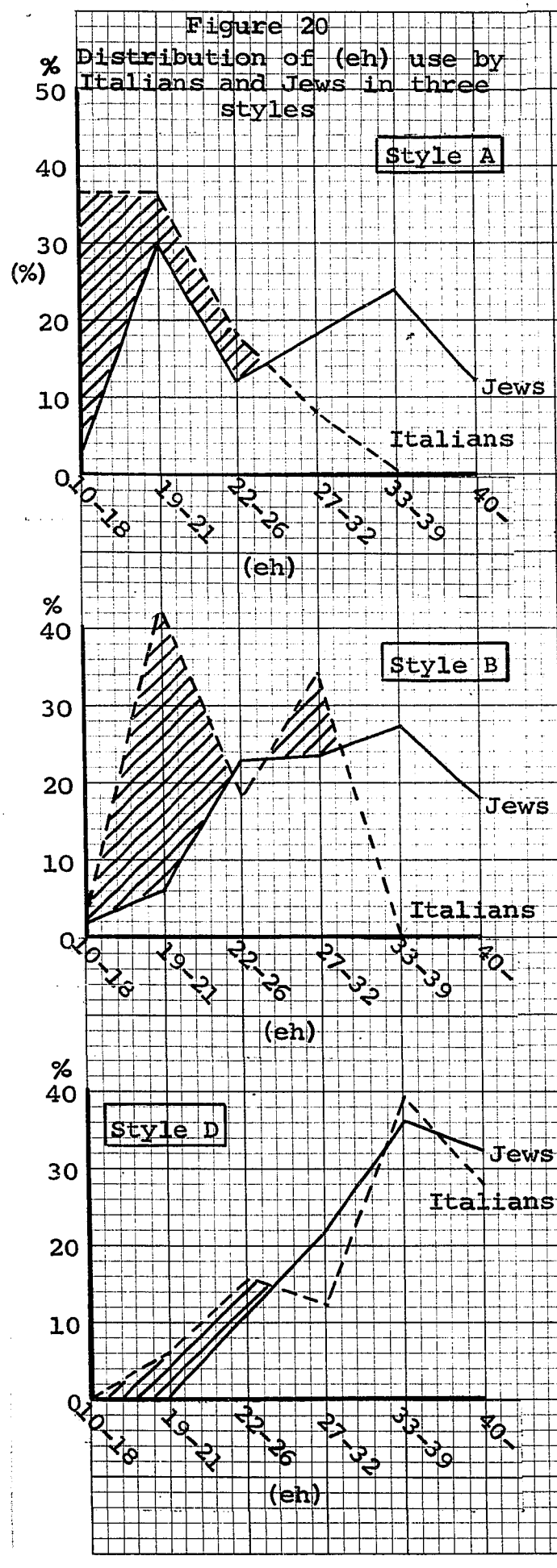
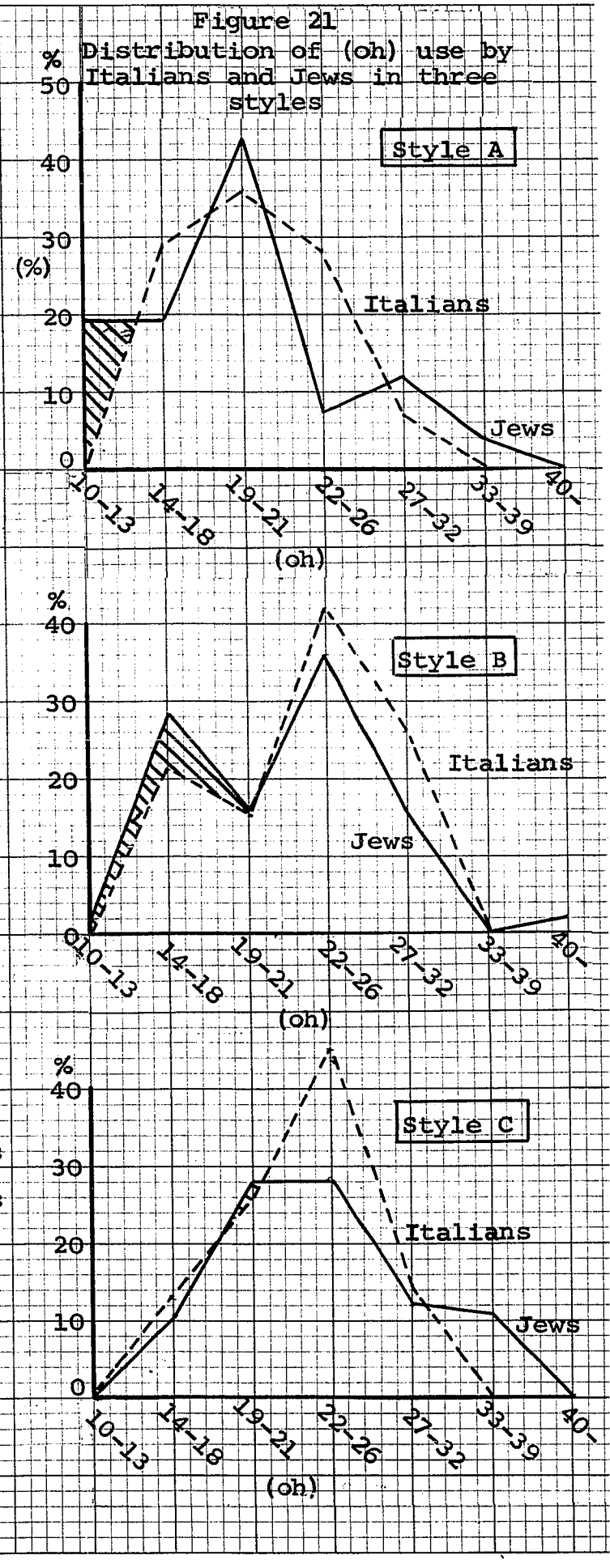


Figure 21
Distribution of (oh) use by Italians and Jews in three styles



York forms a single speech community, quite diverse in every-day speech, but united by a common norm--in this case, expressed by the standardization of the most formal pronunciation.

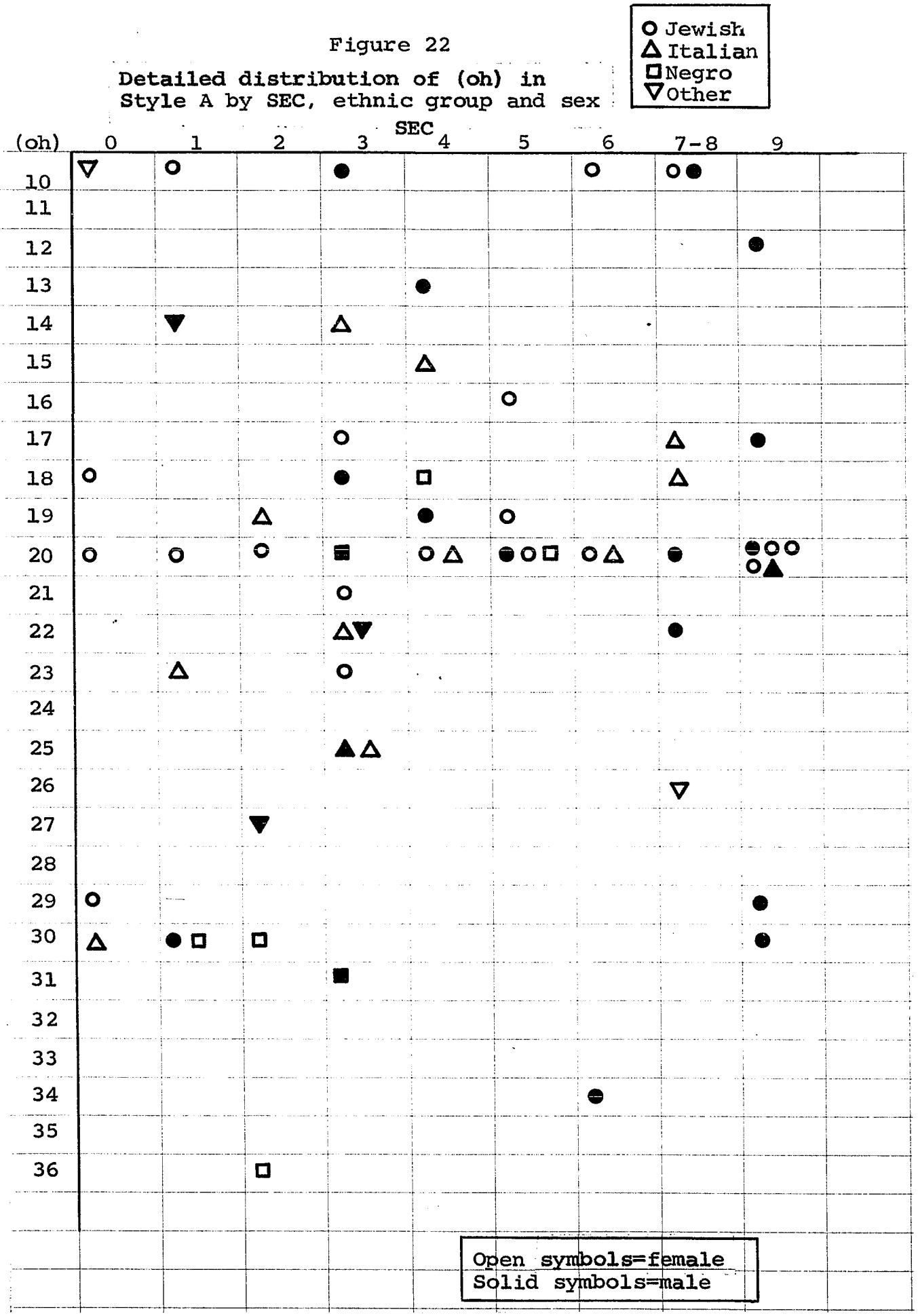
Relation of ethnic membership to (oh)

The distribution of (oh) is precisely the converse of that for (eh). Figure 21 shows the progressive relations of Jewish and Italian speakers for (oh) in Styles A, B, and C. The hatched area represents the proportionate lead of Jewish over Italian speakers for the high, close vowels, while the Italians are seen to be using lower, more open vowels. In Style B, this difference is greatly reduced. Both groups show the same over-all distribution, with two peaks of concentration. In Style C, we see again the coincidence of Jewish and Italian speakers in the accepted norms, centering on (oh)-22-26. The coincidence in the proportions of speakers using the higher vowels, (oh)-13-21, is very marked.

In Figure 22, we have an over-all view of the distribution of (oh) in Style A. Here the curvilinear pattern which was first seen in the arithmetic averages of the previous chapter, is revealed even more clearly. The lower classes show a general scattering of (oh); the upper portions of the working class, and the lower middle class show uniformly high values; the beginning of a fall is seen in class 7-8, and class 9 has generally more open vowels, comparable to those of the lower class.

Figure 22

Detailed distribution of (oh) in Style A by SEC, ethnic group and sex



The position of the Negro speakers in regard to (oh) again shows no participation in the stylistic stratification of this variable. Table 3 summarizes the relations of the three ethnic groups: these two second-order structures repeat the deviant pattern of the Negro group.

TABLE 3

AVERAGE VALUES OF ETHNIC GROUPS FOR (eh) AND (oh)

	(eh)				(oh)			
	A	B	C	D	A	B	C	D
Jews	28	33	36	37	20	21	23	24
Italians	22	23	27	33	21	24	23	25
Negroes	30	28	31	31	26	29	31	29

Because the lower class group does not react to (oh), the figures on the left do not reveal the full extent of variation.

In Table 4, the actual distribution of Jewish and Italian speakers for (oh) is compared, without the lower class group 0-2. This table may be compared with Table 2 for the regular progression of stylistic variation of (eh).

The parallel behavior of Jews and Italians preserves the pattern of stylistic variation despite the fact that the groups start from different average values of the indexes.

TABLE 4

COMPARISON OF JEWISH AND ITALIAN SPEAKERS FOR (oh) WITHOUT THE LOWER CLASS

(oh)	A		B		C		D	
	Jews	Ital.	Jews	Ital.	Jews	Ital.	Jews	Ital.
10-13	5	-	1	-	-	-	1	-
14-18	4	3	7	2	2	1	3	-
19-21	12	4	7	-	4	2	8	3
22-26	1	-	8	6	7	5	3	4
27-32	3	-	5	2	9	1	8	1
33-39	1	-	-	-	3	-	4	1
40	-	-	1	-	1	-	1	-
	26	7	27	10	26	9	28	9

Relations of ethnic groups to socio-economic class

We have noted that the class stratification of (eh) was more gradual and less marked than with the other variables. Since we find that Jewish-Italian differences are very important in the structure of this variable, we may find that a clearer pattern emerges by combining ethnic group and class. Figure 23 shows a style diagram for casual speech which compares Jewish and Italian usage for the three class groups 0-2, 3-5, 6-9. The combined values for all speakers are shown by the dotted line. The lack of direction of the Jewish group as a whole is compared to the uniform tendency of the Italian group. In Figure 24, the view of Style B is amplified by

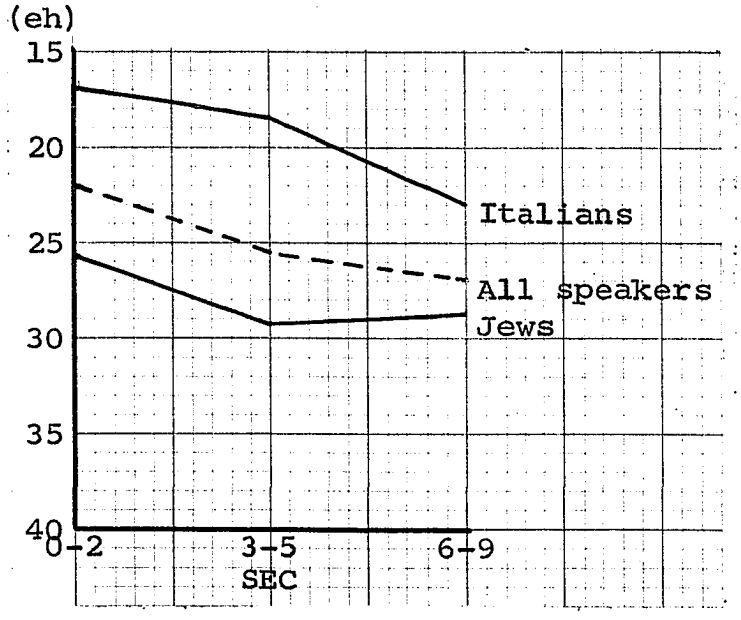


Figure 23

Ethnic stratification of (eh) in Style A by SEC groups

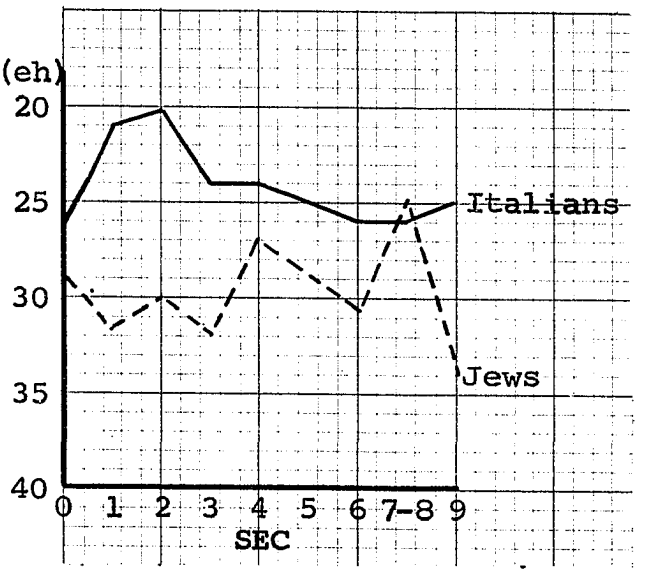


Figure 24

Ethnic stratification of (eh) in Style B by 9 SEC units

using all nine class groups. The Italian group shows a fairly smooth curve, with a peak for lower class speakers, and gradually lower values for the others. The Jewish group, on the other hand, shows fluctuations, with a gradual rise to the lower middle class, and a fall for the upper middle class.

This diagram suggests that most of the fluctuations in the original diagram of Figure 18, Chapter VII are due to the Jewish group. The presence of the older Jewish speakers, who seem to use very open (eh) vowels in their natural speech, may be responsible for this pattern in part.

Figure 25 combines style stratification for Style A and Style B, for both Italians and Jews. The regularity of the Italian pattern, in terms of even spacing of the classes, and a regular progression from left to right, is quite marked in comparison to the Jewish group.

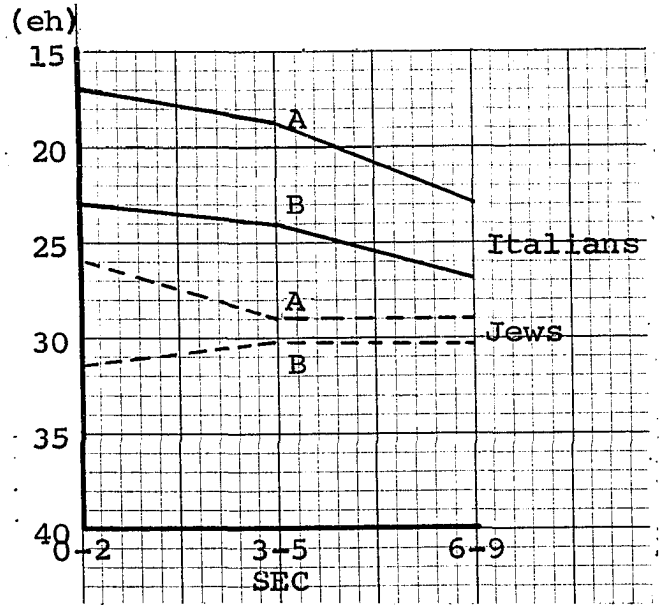


Figure 25

Ethnic stratification of (eh) in Styles A and B by SEC groups

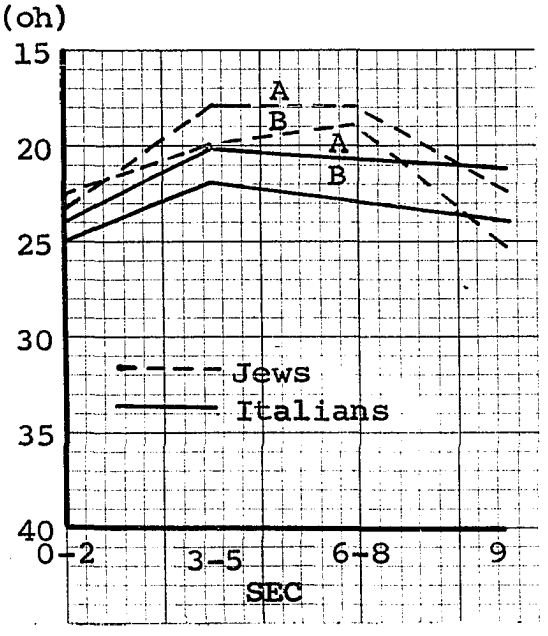


Figure 26

Ethnic stratification of (oh) in Styles A and B by SEC groups

As far as the (oh) variable is concerned, Italians and Jews follow the same pattern; the Jewish speakers show the most extreme curvilinear distribution. Figure 26 gives us a comparison of Jewish and Italian usage of (oh) which is the correlate of Figure 25 for (eh).

We have thus made some progress in explaining the irregularities of the (eh) distribution, isolating a regular Italian factor from the less regular Jewish one. Ethnic differentiation is seen to be a more powerful factor than class differentiation, though both exist in addition to marked stylistic variation.

In comparing (eh) with (oh), we find that the group which leads in the use of high, close vowels, is also the group which shows the most regular stylistic and social vari-

ation. The Italian group is most regular for (eh), and the Jewish group for (oh), as shown in Figures 22 through 26, and Table 3. Unfortunately, we have no real Italian group 9 to pursue the comparison in greater detail: the study of the lower middle class cross-over presumes a steady base in the upper middle class figures.

So far we have not raised the question of why the Italians should have shown a tendency to use higher (eh) vowels and Jews to use higher (oh) vowels. An important consideration must be the possibility of influences from the structures of the Italian and Yiddish vowel systems. That pressures can be exerted on a language by a sub-stratum language which was spoken by previous generations, is a point of view often employed in historical linguistics. In New York City we have the existence of continued contact with native Italian and Yiddish speakers, which argues even more strongly for a cross-linguistic influence.[2] The possible role of underlying Italian and Yiddish influence is one of the problems which will require further study, beyond the present work.[3] On the other hand, it will be shown [in Chapter IX] that the pattern of (oh) and (eh) variation was present in the speech pattern of the most traditional "old stock" families. Undoubtedly the influence of the sub-stratum language is to be seen in the acceleration of trends already present in the English of New York City rather than the introduction of new variants or new structural relations.

The evidence of this chapter, and the following one,

point to unconscious pressures for continued ethnic group identification as the primary mechanism in these linguistic developments. The selection of a particular linguistic variant is of minor significance compared to the social values which are afterwards assigned to it.[4]

Jewish and Italian differences for other variables

The initial assumptions of this chapter would lead us to believe that there are no serious ethnic differences in the usage of (r). This is the case. In all of the distributional diagrams for (r), Italians and Jews are seen to follow the same patterns at the same levels. This is in

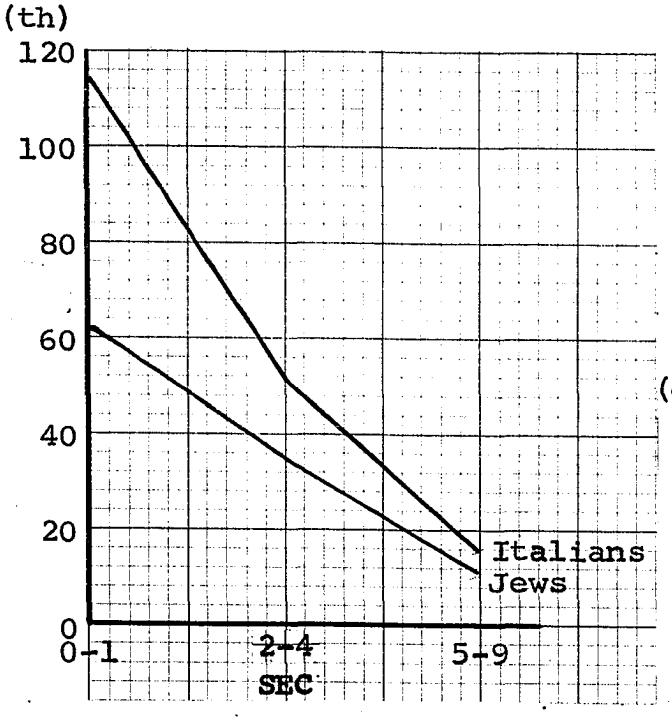


Figure 27

Ethnic stratification of (th) in Style B by SEC groups.

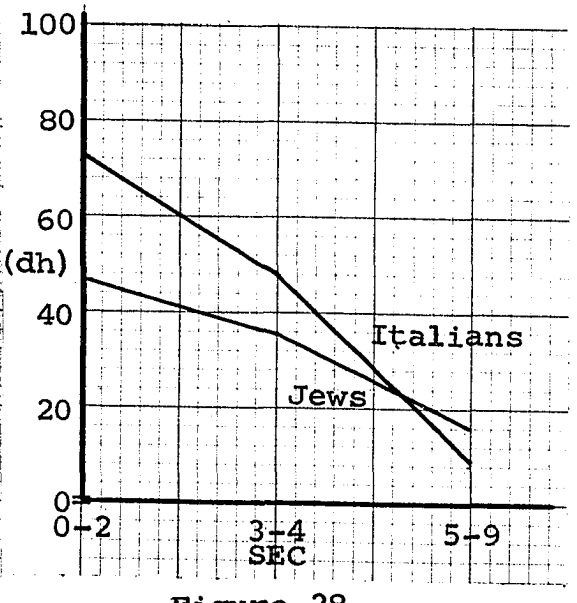


Figure 28

Ethnic stratification of (dh) in Style B by SEC groups.

marked contrast to the situation with (th) and (dh), where Catholics, and particularly Italians, are seen to use a much greater percentage of stops and affricates. Figure 27 compares Italians and Jews in their use of (th) in Style B, and Figure 28 for (dh) in Style B. The differences for (th) are quite extreme, and show that for each class group, Italians use more stops and affricates. The middle class usage of (dh) reflects a slight reversal in the relations of the two groups; since there are only six Italians in this group, we cannot lean too heavily upon this fact for further interpretation.

We can now estimate the type of error involved in the main distributional weakness of the ALS sample of completed interviews: the lower proportion of Italians, and particularly, Italian men. These speakers generally use higher (eh), and more stops and affricates in (th) and (dh) than the population as a whole, if we can judge from the 19 subjects in our sample. It is important to note, however, that they follow the same patterns of social and stylistic variation as the rest of the population. The difference is one of relative level. We can therefore infer that any attempt to gauge the absolute level of the usage of (th) and (dh), (eh) and (oh), or (r) in the population as a whole might show some error due to the difficulty of estimating the values for the non-respondents. However, there is no reason to believe that the structure of social and stylistic variation would be at all changed by the complete record of the population that

moved and could not be reached.

We can now consider the second serious weakness in distribution of the sample, and see if there are important differences between men and women--in their use of the five variables.

Comparison of men and women

The comparison of the sexes for the five phonological variables must be made for two distinct parts of the population: the upper middle class on the one hand, and the rest of the informants on the other. This is necessary, not only because the proportions of men and women have been reversed for the upper middle class, but also because the relations of the sexes in these two parts are different for some of the variables. For example, the difference between all men and women in the sample for (dh), Style B are:

		average (dh) index
men	(30)	54
women	(52)	31

If we exclude class 9, we have:

men	(22)	68
women	(48)	34

Thus men are now seen to be twice as high as women in their use of stops and affricates for all but class 9. Fortunately, we need not rely upon arithmetic averages for a study of differ-

ences in sexual behavior. Figures 6 and 7 showed the relations of men and women for (dh) in Style B in a distributional chart. If one examines the open circles alone, the pattern is seen to be extremely regular--quite comparable to the regularity of (r) for the working population in Figure 14. The pattern formed by the shaded circles is much less regular, though it follows the same general outlines at a lower level. In fact, as we examine the structure of the diagram, we can see that it falls into four natural groupings.

1. (dh)-00 Men and women equal. Men in class 9 only.

2. (dh)-1-40 Men and women in all classes, but men perhaps slightly lower in distribution.

3. (dh)-41-80 Only women from working and lower class. Split sharply into two halves: upper part mostly women, lower part all men.

4. (dh)-81-160 Repeats the pattern of third group at a lower level.

Thus we see that the male-female diferences in (dh) are confined to the two lower groups, and there they are very sharp. This holds true for either the SC index in Figure 7 or the SEC index of Figure 6. As we examine the male-female differences, it becomes apparent that <u>both</u> diagrams organize the female speakers in a regular pattern of social stratification: the problem has been one of organizing the male speakers.

In Figure 15, we see the relations of men and women in the working population for their use of (th) in Style B. Here the women are uniformly concentrated in the upper half of the diagram, with no sign of a sharp differentiation by

occupation. However, the three women in manual occupations can not give us a firm base for comparison. A much larger group of factory workers would be necessary here.

Men and women follow the same patterns in the use of (r). Figure 14 shows the relations of men and women in the working population. The women fit fairly well into the predominantly male pattern. In a more complete view of the sample, we find no significant differences between the sexes in their use of (r).

In Figures 18, 19, and 22, we can study the relations of the sexes for (eh) and (oh). There is no immediate pattern of sex differences by class. However, a close examination will show that women show more concentration in the extreme values, especially for (oh). This tendency is illustrated by Table 5, which compares men and women for both variables in Styles A, B, and D. The progressions of the numbers of informants in each category show that men and women follow the same stylistic variation, but that the total shift of the women speakers is much greater. Class 9 is not included. The tendency of women to follow an extreme pattern of stylistic variation, which we may call hypercorrection, is an important aspect of the structure of New York City English. One of the most difficult problems to explain is the mechanism of the steady rise of (eh) and (oh) through successive generations, which will be detailed in the next chapter. It is possible that the hypercorrect behavior of women plays a vital role in this procedure.

TABLE 5

COMPARISON OF (eh) AND (oh) DISTRIBUTION FOR MEN AND WOMEN

		Style A		Style B		Style D	
		Men	Women	Men	Women	Men	Women
(eh)	10-13	-	1	-	-	-	-
	14-18	1	4	-	2	1	-
	19-21	3	10	3	9	1	2
	22-26	4	6	7	9	-	5
	27-32	3	4	11	12	8	9
	33-39	4	4	3	5	4	14
	40-42	1	2	-	6	4	16
		16	33	24	43	18	46
(oh)	10-13	3	4	-	1	-	3
	14-18	3	10	4	10	2	5
	19-21	4	14	7	7	5	13
	22-26	3	5	8	16	5	4
	27-32	3	4	5	10	5	8
	33-40	1	1	-	2	1	10
		17	38	24	46	18	43

Temporal relations of the variables

The findings of this chapter confirm the initial assumption of the logical order of social influences on the variables. We can summarize the relative positions of the independent variables in this way:

Sex and ethnic group membership seem to operate on the variables in much the same way. They play an important part in the over-all level of (th) and (dh). Ethnic group seems to be the principal determinant of the initial level of (eh) and (oh), as shown in Style A, while sex partly determines the over-all range of correction under stylistic shift. Both sex and ethnic group seem to have relatively little influence on (r).

The respondent's occupation and education are the most important determinants of (th) and (dh) usage in all three styles. They have less relevance for (eh) and (oh) except in determining the type of correction found under shift to more formal styles. Both factors play a part in determining the usage of (r), as they reflect the current status of the individual.

Income appears as a necessary element in the fine stratification of the population with respect to (r), reflecting the current status of the speaker.

In these statements, the expression "determines" must of course be read as an abbreviation for "is closely correlated with and appears to measure social influences which are logically and temporally prior to linguistic behavior."

In the latter half of this chapter, we have seen a number of recurrent first-order structures, in which the same phonological indexes were used as in Chapter VII, but with homogeneous sets replacing the linear sets of SC and SEC groups. Thus Jews, Italians, and Negroes form a homogeneous

set of all ethnic groups in the sample large enough to be studied. Men and women form a homogeneous set (in the sense of Chapter VII). If the first-order structures for these homogeneous sets recur with the units regularly differentiated for the same variables in the same way, the units will then assume a tentative ranking, and form second-order structures. Thus Jews may become the first ranking ethnic group for (oh), Italians next, Negroes last: the utility of such a second-order structure lies in the prediction of relations in contexts not yet examined.

This chapter has presented some of the detailed influences which underlie the larger view of class stratification of the variables as presented in Chapter VII. The findings of the present chapter supplement rather than correct this view of class differentiation of language. They bring us closer to the description of a uniform linguistic structure for the New York community, and the processes of linguistic change which have created that structure.

NOTES TO CHAPTER VIII

[1]The ethnic group as it exists in New York City is not to be identified with the ethnic groups of European society. "The ethnic group in American society became not a survival from the age of mass immigration but a new social form. . . . Ethnic groups then, even after distinctive language, customs and culture are lost . . . are continually recreated by new experiences in America. The mere existence of a name itself is perhaps sufficient to form group character in new situations, for the name associates an individual, who can actually be anything, with a certain past, country, race. But as a matter of fact, someone who is Irish or Jewish or Italian generally has other traits than the mere existence of the name that associates him with other people attached to the group. A man is connected to his group by ties of family and friendship. But he is also connected by ties of interest. The ethnic groups in New York are also interest groups." Glazer and Moynihan, op. cit., pp. 16-17.

[2]The great majority of the ALS informants were familiar with a second language, since their parents or grandparents had been born and raised in Europe. In many cases, the informants had learned their parents' native language first, and continued to use this language in speaking to their parents, or to other elderly persons. English was used with brothers and sisters as a rule, and with friends of the same age level. It was rare for an informant to report that he had used any language besides English with peers, or in thinking to himself, or in dreaming.

[3]No simple difference in phonemic inventories of Yiddish and Italian will account for the differentials in the use of English that have been noted. Neither Yiddish nor Italian have a low front vowel /æ/, and both have a short low back rounded vowel, an allophone of /o/ used in checked syllables with the value [ɔ]. One possible mechanism for the Jewish raising of [oh] was suggested to the author by Marvin Herzog, of the staff of the Language and Culture Atlas of Ashkenazic Jewry. Many native speakers of Yiddish do not distinguish in English the low back rounded vowel /oh/ from the unrounded vowel /ʌ/. Thus a cup of coffee may be [a kɔp kɔfi]. The children of speakers with this pattern may react by over-differentiating /ʌ/ and /oh/, leading to an [oh-1] pronunci-

ation with a high, over-rounded long vowel as opposed to the lower, unrounded short /ʌ/. This type of hypercorrection, in which the speaker overcompensates for the influence of a stigmatized foreign pronunciation, may be responsible for the Jewish lead in the raising of [oh]. If this suggestion could be extended to the case of the front vowels, it would appear even more probable--that is, if the raising of /eh/ could be seen as a comparable overcompensation for the foreigner's use of /æ/. Yiddish accents in English seem to favor the use of /e/ for /æ/, with a homonymy of bad and bed, and we have seen a number of older, second-generation Jewish speakers who use a low [eh-4], even in casual speech. Native Italian speakers, using English as a secondary language, seem to favor a forward variant of their /a/ phoneme for words of the bag, ask, dance class. If this explanation is correct, the second and third generation with Italian-born relatives would tend towards higher /eh/ as a form of hypercorrection.

[4]Thus the mechanism of hypercorrection, suggested above, might account for the origin of a trend, which would continue as high /eh/ became a symbol of group identification for New Yorkers with Italian backgrounds, and high /oh/ for those with Jewish backgrounds.

CHAPTER IX

DISTRIBUTION OF THE VARIABLES IN APPARENT TIME

The study of small differences in language behavior is concentrated upon the variable elements in linguistic structure; this procedure brings us inevitably to indications of linguistic change. Variability itself is change: but some types of variation are themselves invariant from generation to generation. We are particularly interested in gradual alterations of the linguistic habits of a population through the course of time, which will be referred to here as linguistic change.

The explanation of linguistic change on a large scale is one of the primary goals of linguistics, and in the present work we hope to contribute to that end by the close examination of linguistic change in progress. Throughout the last several chapters, it has been suggested that some attributes of the variables are correlated with linguistic change: the social differential in the use of (r), the cross-over pattern of the lower middle class for (eh), (oh), and (r), the fine stratification of (r) as against the sharp dichotomies imposed by (th) and (dh). In this chapter, evidence from the objective distribution of the variables through age levels will be brought forward to explore this question in detail.

IX-2

Methods for the synchronic study of change

The ideal method for the study of change is diachronic: the description of a series of cross sections in real time, either by an independent set of random samples of the same population [a trend survey], or by re-interviewing the same individuals over a period of years [a panel survey]. These are expensive methods, in terms of time and energy as well as money, and it is not often that they are carried out with full rigor. We have referred to earlier studies of New York City speech, and this chapter will refer to the Linguistic Atlas and Hubbell's records, as well as Babbitt's earlier report.

However, the method of selecting informants, the type of informants, and the context of the interviews were so different from the present study that caution must be used in drawing comparisons.[1] Differences between these earlier records and our own could be due to many other factors besides linguistic change. Therefore, until such time as the entire procedure, or a procedure similar to the present survey, is repeated after an interval of years, our best evidence for linguistic change will be internal evidence, drawn from the survey itself.

By studying the differences between the linguistic behavior of successive age levels in our sample, we can make inferences about linguistic change. This type of approach may be referred to as a pseudo-trend study; it is a series of cross-sections in apparent time as opposed to real time. The dimension of apparent time lies along the axis of the age

X-3

levels of present day informants, taken as representatives of the native speech pattern of the years in which they grew to maturity. It is obvious that such a method will give an accurate report of change only if apparent time is isomorphic with real time. This condition is fulfilled only [1] if there are no differences between older and younger speakers which are repeated in each generation, and [2] if the older speakers remain isolated from the effects of the language used by younger speakers. Since these conditions are rarely fulfilled, the study of apparent time must be refined to distinguish the effects of linguistic change from the invariant effects of aging and from the modifying effects of the present situation upon older speakers.

The effects of aging may be either physical or cultural. Studies of the physiological process of vocal aging have shown that pitch and tempo alter regularly with advancing years;[2] but the possible effects of aging upon vowel and consonant production remain unknown, except for the obvious results of the loss of teeth. To control for possible effects of extreme old age, we will examine differences in speech production at three or four age levels, rather than rely too heavily upon the evidence of the very old informants. We can also rely to a certain extent upon comparison of our oldest informants with the oldest Atlas informants, who would presumably show similar effects of aging.

Studies in apparent time may be most successful in communities where single-style speakers prevail, and where it

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is not normal for a person to adjust his speech radically to fit the social situation around him. In the previous study of linguistic change on Martha's Vineyard, cited above, this condition prevailed, and inferences from apparent time were comparatively straightforward. But as we have already seen, quite opposite conditions govern New York City. The extraordinary malleability of speech under shifts of social context may indicate a corresponding tendency of the speaker to adjust his entire set of styles to fit a changing linguistic climate.

To minimize the effects of such adjustment, we will rely principally upon Style A, casual speech, which is most closely related to the native speech pattern of the pre-adolescent speaker. There is no doubt that for some persons, this pattern can shift in the course of twenty years. However, we have evidence that the shift is relatively small. The record of the out-of-town speakers as a whole, as reviewed in Chapter VII, shows no evidence that this group has made a radical adjustment to the native New York City pattern. On the contrary, the (eh) and (oh) vowels of the out-of-town respondents showed no relation to the New York vowel structure. Many individual cases can be cited to show vowel systems of out-of-towners preserved intact after thirty or forty years in the city, despite the sharp contrast between these systems and the New York structure.[3] As we have seen, it was even necessary to reject most of the marginal cases who had come to New York City in the latter part of their pre-

IX-5

adolescent years, because their characteristics departed so markedly from the main sequence of New York City speakers.

Despite the relative stability of casual speech, we must be prepared to find some degree of shift which is proportional to the length of time of exposure to an alien environment. Before we can utilize the data on distribution of the variables by age levels, a certain amount of preliminary analysis is necessary. We will use the evidence presented so far on the characteristics of various classes in order to construct models of the possible relations of real time to apparent time.

The relative stability of class patterns

There are a number of social forces which may produce a shift in the over-all speech pattern of New Yorkers as they grow older. Contact with a wider range of class types, better acquaintance with the language of the upper middle class, exposure to the standard of broadcast media--all these may have some effect in moving the every-day speech of the average citizen away from his neighborhood pattern, and towards the prestige norm. We would expect that those who show the most linguistic mobility in their stylistic shifts would be most likely to show such an over-all shift as they advance in years. The lower middle class speakers would be preeminent in this respect, and working class speakers next.[4] In contrast, the older speakers from the lower class and the

upper middle class should serve as our best sources of historical information, since they show the least degree of stylistic variation.

The lower class speakers may show less shift for several reasons. They are less in contact with the prestige norm, as a result of their limited education. They are relatively isolated from the clerical and business world, and their attitude towards upward social movement may be negative or anomic.

The upper middle class speakers have greater linguistic security by all of the measures used in this study.[5] They have less tendency to shift their speech in later life, partly because they have incorporated into their every-day speech a large measure of the prestige norm. This assimilation may not have been accomplished in their pre-adolescent years, especially if they come from families of lower social status, but a considerable amount of the prestige pattern is acquired in the late teens in the college environment. At eighteen or nineteen, one cannot expect the acquired speech traits to be perfectly consistent, but upon graduation from college, the upper middle class speaker has probably obtained maximum exposure to the prestige norm. His acquisition of these traits, the approval of his associates, and his general linguistic security would all tend to diminish any future shift of his every-day speech.

IX-7

The possible relations of apparent time and real time

Before we examine the actual usage of the variables over several age levels, it will be useful to ask what kind of distribution we can expect in various cases if linguistic change has or has not been taking place. The simplest of all cases would be for a variable which has no social significance, is not involved in stylistic variation, has not been stigmatized or awarded prestige of any sort. In such a case, we would expect either no difference between age levels, meaning that no change was in progress, or a uniform change from level to level, without any differences in social class or ethnic group, indicating a gradual linguistic change. This would be the model of a change through random drift, as discussed in the opening chapter. While it is a theoretical possibility, no such case has come to our attention in the study of New York City English.

A case which frequently does occur is that of a language feature which has been socially stigmatized as a mark of uneducated or uncultivated speech, or has been associated with a minority of low status. We may call this Case I. If no linguistic change in the social significance of this item has taken place, we would expect a distribution such as the following: The groups of higher social status would show no trace of the feature, or very little. The uneducated members of lower status groups, who were closely tied to their own neighborhood, would use this feature extensively, and show little change in their usage as they grew older, so that both

older and younger speakers would show a relatively high degree of this trait. However, the middle-ranking members of lower status groups, such as the upper sections of the working class, or the lower middle class, will come into broader contact with the prestige forms, and we would expect some weakening of their use of the stigmatized form as they grew older. Thus even a static situation can produce variations from one age group to another.

If linguistic change is in progress, the effect of increasing stigmatization may reverse the situation described above. The older speakers will show greater use of the newly stigmatized feature, and the younger groups less, especially among the middle ranking of the lower status groups. We can thus show two contrasting schemes for Case I.

Case I: A stigmatized language feature

I-A. No change in progress

	Lower Class	Working Class	Lower Middle Class	Upper Middle Class
Younger	high	higher	higher	low
Older	high	lower	lower	low

I-B. Change in progress

Younger	[lower]	lower	lower	low
Older	[higher]	higher	higher	low

A second case which frequently occurs is that of a prestige feature which is not used in every-day language by the majority of the population. We may refer to this as Case II. If no change is taking place, we would expect that the highest status group would show a uniformly high level of this feature

through all age groups. The lowest status group would probably show none. The middle ranking groups would show none for younger speakers, but tend to acquire some smaller amounts of this characteristic in later years, as they came into contact with the prestige norms. This effect might be observable in every-day speech, but would be considerably magnified in more formal styles.

If the prestige feature is not invariant, but has been recently introduced, we should see a different distribution. The highest-ranking group will show us the plainest signs of linguistic change: the older speakers will adhere to the older prestige norm, and be relatively unmoved by the newer norm. Younger speakers will show much greater use of the new prestige form, and contrast sharply with older speakers of high status.

Traces of this newer norm will be found in the middle ranking group, but not among young speakers who have acquired only the traditional pattern. It is the older speakers from the middle ranking group who show the greatest malleability, and the least linguistic security: it is they who will adopt some of this new prestige marker. It is not likely that the oldest speakers of this class will show the same adjustability as the middle aged ones: the evidence from the present study indicates that the greatest degree of stylistic fluctuation, and linguistic insecurity, occurs in middle-aged speakers from the middle-ranking groups.[6]

Thus the contrast for a prestige feature, between the

effects of no change and of change, depends primarily upon the behavior of the highest ranking group.

Case II: A prestige feature

II-A. No change in progress

	Lower Class	Working Class	Lower Middle Class	Upper Middle Class
Younger	low	lower	lower	high
Older	low	higher	higher	high

II-B. Change in progress

Younger	low	lower	lower	high
Older	higher	higher	higher	low

If we compare these diagrams with those for the stigmatized feature, we see that we cannot look for evidence of linguistic change in the same groups in both cases. The key to change of the stigmatized feature is in the behavior of the lower ranking groups, especially the middle sections. Their behavior is quite opposite for the cases of change or no change. But for the prestige feature, the behavior of these lower ranking groups gives little information. Quantitative differences may prove helpful in analyzing the situation, but qualitatively, the relations are the same. We must look to the highest ranking group for primary information on linguistic change in this case.

Once we have determined the situation for casual speech, we can further amplify our understanding by investigating more formal styles. The information gained here will be particularly useful in showing the details of change for the prestige feature, for formal styles of speech respond most directly to this type of language trait.

The two cases discussed above are relatively simple examples of the pressure of society upon language. These forces are applied from above--their most direct expression is in the behavior of the highest ranking classes. The process is out in the open for us to observe, in public performances, in the attitudes of teachers in the schools, and in the conscious reactions of some middle class persons. Ordinarily, such forces are exerted upon individual elements of a language system, rather than upon the system as a whole. The item in question may be the use of a single word, such as ain't, or the pronunciation of a word, such as vase, or aunt, or it may be an entire allophone, such as the upgliding central diphthong in bird, or the (eh-2) of bad, ask, and dance. The results of public pressure from above are sometimes highly systematic, as the shift of one feature may have systematic consequences if the feature is important enough. We see this case in the introduction of (r) into the phonological system of the language, with the systematic developments to be explored in Chapter XII.

There is another type of linguistic change, correlated with social factors of a different nature. We may describe this as change from below, because it is expressed as a gradual shift in the behavior of successive generations, well below the level of conscious awareness of any speakers. In most cases, the shift begins with a particular group in the social structure and is gradually generalized in the speech of other groups. Usually the initiating group has low status

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in the social hierarchy—otherwise the change would be transformed into overt pressure from above. Social reaction may afterwards fasten on the results of such a change, and force a reversal in whole or in part by pressure from above. However, the change itself is accomplished without public attention, and is usually subject to overt pressure from above at a late stage.[7] The upward transit of slang terms in the language is the aspect of change from below which is most familiar to us in every-day life. The reasons for such a progression are obscure, and many speculative explanations have been advanced without the support of empirical tests. It is safe to say that the explanation for this upward movement, which we have called change from below, is one of the most important open questions in the study of linguistic change. The relations between social classes are not the only types of differentiation associated with change from below. We have already seen that the distribution of (eh) and (oh) is closely associated with systematic ethnic differences. Since the relations of Jews, Italians and Irish [and now Negroes and Puerto Ricans] have formed one of the principal themes of social dynamics in New York City, we can believe that such linguistic correlates can lead to generalized changes in the speech of the city as a whole.

What kind of distribution through apparent time can we expect from changes from below? If the situation is not complicated by a corresponding correction from above, we would expect to see a steady progression along at least one social

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dimension as well as the dimension of apparent time. For example, the following diagram shows a pattern rising in the working class, and spreading to other classes.

Case III-A. Change from below: early stage

	Lower Class	Working Class	Lower Middle Class	Upper Middle Class
Youngest	High	High	High	Medium
Young adults	Medium	High	Medium	Low
Middle aged	Low	Medium	Low	Low
Oldest	Low	Low	Low	Low

This pattern in its simplest form is seldom to be found in actuality. The differential behavior of ethnic groups, of the sexes, and other factors will complicate the pattern. Furthermore, the new forms may be stigmatized from above at a certain stage. We would therefore have to superimpose the pattern of Case I-B on the result. A possible later stage of III is therefore:

III-B. Change from below: late stages with correction from above

	Lower Class	Working Class	Lower Middle Class	Upper Middle Class
Youngest	High	High	High	Low
Young adults	High	High	High	Medium
Middle-aged	Medium	High	Low	High
Oldest	Low	Medium	Low	Medium

The ensuing complications may become so great that we would be forced to give up the attempt to analyze apparent time, and rely instead upon whatever evidence we have from earlier studies in real time.

For 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. We therefore have the following possible types of linguistic change corresponding to distributional patterns in apparent time (with examples):

		Incidental	Systematic
Change from above	Stigmatized forms	/ʌy/ in bird	-
	Prestige forms	/a/ in vase	(r)
Change from below	Self-identification	keen, cool as slang	(eh), (oh)

We may now proceed to examine the distribution of the variables in apparent time, and interpret the results in accordance with the considerations given above. We will therefore examine the social characteristics of the sample population by age level.

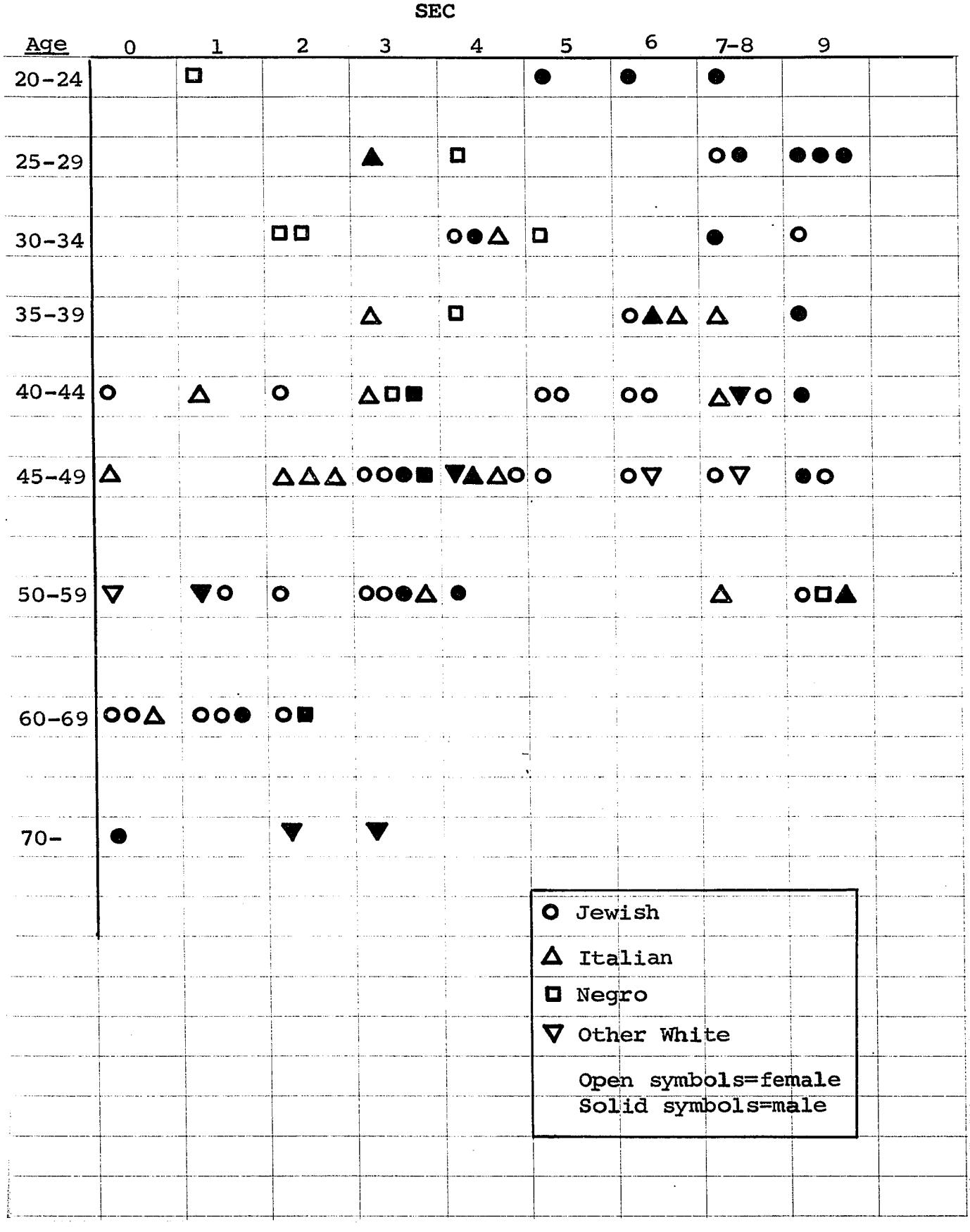
The distribution of the population by age

Figure 1 shows the distribution of the 83 New York informants by age level, social class, sex and ethnic group.[8]

In this figure, we can immediately note certain weak points in the distribution. The entire diagram is skewed, with the oldest speakers represented in classes 0-3 only, and the youngest primarily in classes 4-9. The heaviest representation is in the 40-49 age level. More men are found in the

Figure 1

Distribution of 83 Adult New York ALS Informants by age, SEC, sex and ethnic group



younger age levels, and more women in the middle-aged rank, while the oldest subjects are men.

This distribution is characteristic of the entire sample population of native speakers, and not the result of a failure to locate a particular group. Table 1 shows the distribution of the various sample populations by age level.

TABLE 1

PERCENTAGE DISTRIBUTION OF POPULATIONS BY AGE LEVEL

Age	ALS Target Sample	Native NY ALS Subjects	All NYC Subjects	Completion Rate for ALS + TV	Died or Moved Population
20-24	02	05	10	100	05
25-29	07	08	08	93	11
30-34	07	09	09	93	13
35-39	13	08	10	83	18
40-44	16	17	16	97	12
45-49	20	23	21	84	15
50-59	20	16	15	63	15
60-69	08	10	08	75	08
70-	07	04	03	69	03
	100	100	100		100
	[N: 191	83	120		117]

The first column is the ALS Target sample: the native English speakers who had not moved, including New Yorkers and out-of-towners, minus the four marginal cases discussed in Chapter VI. If we compare the sample of New York subjects actually interviewed in the ALS survey, we see that the distribution is not very

IX-17

different. The sample of 83 is slightly higher for the youngest speakers, and weaker for the 35-39 group and 50-59 group.

The shortage of younger informants is not a product of the survey procedure; it is partly due to the fact that all of the MFY informants are two years older than they were when the adult sample was first constructed. Secondly, a shortage of speakers between 30 and 39 has developed because this group has shown the highest rate of moving. In any case, we will need more younger speakers to study change through apparent time.

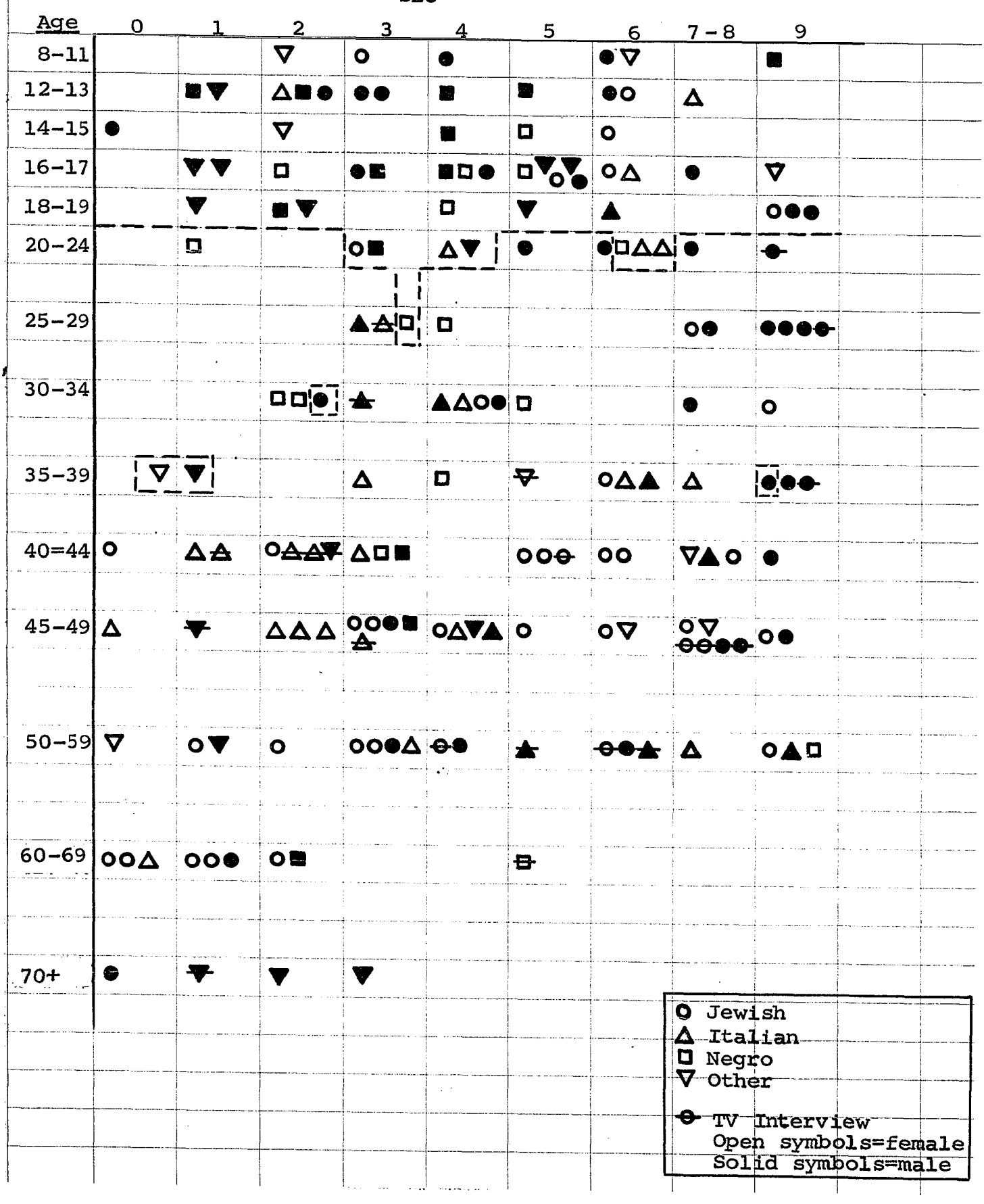
We can find the younger informants we need in the 13 adult children of informants studied in the ALS interview. Twelve of these were New Yorkers. Furthermore, 25 of the 33 subjects studied in the television interviews were New Yorkers. We thus have 120 informants, as shown in the third column of Table 1.

This addition leaves us with a shortage of older speakers in the 50-59 age range, and of the very oldest subjects. We have a fairly good sample of the middle-aged group, but there is little we can do to supplement the oldest group. Losses through death and disability, combined with low numbers to begin with, have reduced this group to the point that we must combine it with the group aged 60 to 69.

The resulting distribution is shown in Figure 2. The adult children of ALS informants are seen here as supplementing the distribution of Figure 1 at the points where the

Figure 2

Distribution of 169 New York Informants including children and television interviews



IX-19

original pattern was weakest. The children of informants are shown at the top of the diagram. The distribution of those 8 to 19 years old seems fairly even, with more male than female subjects, and representation from all ethnic groups. But we cannot consider this sample as reliable as our adult sample. As noted in Chapter VI, the youth interviews were not pursued systematically, and convenience played a considerable part in the final results. We did not sample the young people who are never found at home, nor even the ones who did not happen to be available when we wanted them. Therefore the youth sample may be used to suggest trends which are positively present in the data, but not to exclude any possibilities which we do not find.

However, we will want to utilize the information from the twelve adult children of informants throughout this chapter. These subjects have a well-established social position of their own, and it is possible to assign them socio-economic rankings as reliably as the regular ALS informants. Since their evidence is needed for the study of the younger sections of the adult population, it is necessary to see if they follow the same linguistic patterns as the main body of adult speakers, or if their addition to the sample will result in a completely different over-all distribution.

We can check the effect of adding this group to the population by re-tabulating style and class stratification arrays for (r). As we have seen, the variable (r) is the most sensitive and regular indicator of socio-economic status.

The structure of stylistic and social variation which we have seen in Figures 9, 10, and 11 of Chapter VII is preserved for this combined population with only slight changes. One deviation from regular structure is eliminated: the equality of Styles B and C for class 9. A deviation in the relations of class 0 and 1 in Style D' appears. Otherwise, the over-all stratification of the population is sharpened, for the (r) values are slightly lower for the lower ranking classes and for the less formal styles, and slightly higher for the higher ranking classes and more formal styles.

We can conclude that this addition to the sample will allow us to investigate distribution in apparent time for an expanded sample population: the younger informants fit the over-all pattern of behavior for (r) quite well, and even sharpen the view of stylistic and social stratification.

A case of stigmatization: the up-gliding vowel of third

In order to check the general views of the relations of apparent time and real time set forth above, we may take first a simple and clear cut example of Case I, a stigmatized phonological feature. The most well known example of a stigmatized New York City trait is the up-gliding central diphthong in words like third, bird and shirt, curl and worm, verse and worse, which has come to symbolize New York City speech in folk mythology under the name of 'Brooklynese.' The up-gliding central diphthong may be written phonetically

X-21

as [əɪ], and as /ʌy/ in the phonemic notation of Chapter II.[9]

This sound is still frequently heard in New York City for the words just listed. A few lower class and working class respondents used this diphthong for oil and voice, as well as Earl and verse. But this merger of word classes is rare today; middle class speakers have apparently never used /ʌy/ for the voice group of words, even when they used it regularly for verse. We will therefore be studying the occurrence of /ʌy/ in words such as third, bird, curl, and verse.

The use of /ʌy/ in any context is now heavily stigmatized, although at one time it was a pronunciation used regularly by New Yorkers of all classes. For reasons that are not entirely clear, it has met with an extreme form of social pressure from above, and has receded rapidly under this social correction.[10] In Table 2, we see the percentages of speakers who used any instances of this stigmatized form in any style during the interview, by class and age level. The population studied includes the ALS informants, adult children of informants, and those studied in the television interview.[11]

TABLE 2

PER CENT USING ANY /ʌy/ BY AGE AND SEC CLASS: OVER-ALL DISTRIBUTION

Age	0-1	2-5	6-8	9
20-39	75	35	09	00
40-	85	57	35	00
				[N: 4 16 11 7
				13 35 17 7]

This table conforms in detail to the exemplar of Case I-B: a stigmatized language feature showing change in progress.

We can now confirm this over-all view by a closer examination of the data. Table 3 shows the distribution for five age levels and five class levels, in which the numerator of the fraction represents the number who used some up-gliding centralized diphthongs, and the denominator the total number of cases. Informants under 20 are added on the top line, so the total number of cases here is 162.

TABLE 3

SPEAKERS USING ANY /ʌy/ BY AGE AND SEC CLASS: DETAILED DISTRIBUTION

Age	0-1	2-3	4-5	6-8	9	0-9	%
8-19	2/7	0/11	0/12	0/16	0/5	2/51	04
20-39	3/4	3/7	3/10	1/11	0/7	10/39	24
40-49	1/3	5/14	4/8	4/13	0/4	14/42	33
50-59	3/3	2/4	3/3	2/4	0/3	10/17	59
60-	7/7	5/5	1/1			13/13	100
8-60	16/24	15/41	11/34	7/44	0/19	49/162	
%	67	38	32	16	00		

The marginals of this table show a steady progression along both axes, indicating that the use of /ʌy/ is systematically correlated with both age and class. In order to judge the relative influence of these two independent variables, we can examine Figure 3, an age stratification diagram, and Figure 4, a class stratification diagram. A comparison shows us immediately that age is stratified more clearly than class. There are four deviations from regular structure in the re-

DX-23

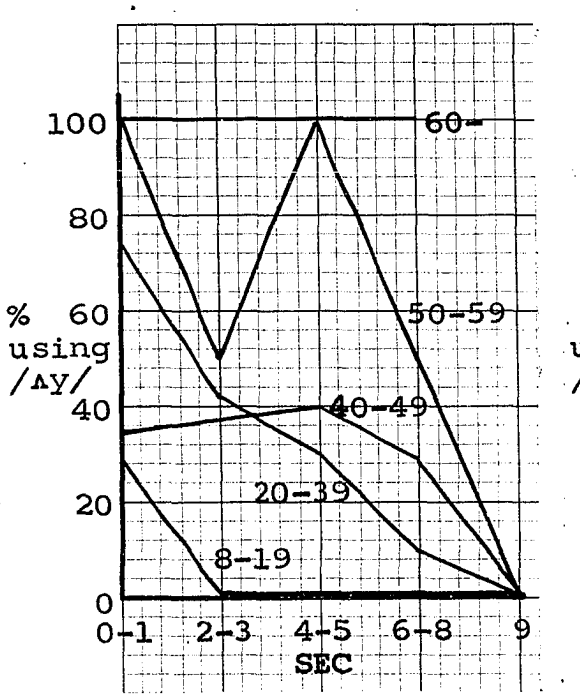


Figure 3

Age stratification of /ʌy/ by class

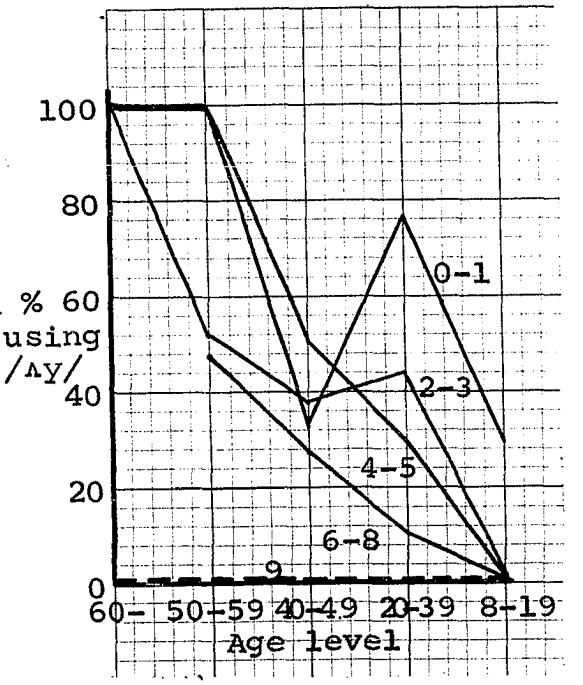


Figure 4

Class stratification of /ʌy/ by age

lations of class groups, but only two deviations for age levels in the same array. Figure 4 indicates that the age level 60-75 shows no contrast [upper middle class speakers being missing]; the 40-59 groups show only a coarse pattern of stratification, not at all regular for the lower class and working class; the age level 20-39 shows regular class stratification, and the younger speakers use no /ʌy/ at all except for the lower class. Thus the impact of social stigmatization has produced such a swift change that only one generation shows the regular class stratification that we have observed for the other phonological variables. For the oldest speakers, /ʌy/ is used regularly by all but the highest ranking class. For our youngest speakers, the stigmatized feature has disappeared for all but the lowest ranking class.

This rapid change covers the whole range of social contrast in four generations: for the speakers raised before World War I, the use of a constricted [ɚ] in bird, work and worm is a prestige mark of upper class speech: for those who are growing up today, the once common standard /ʌy/ is a highly stigmatized mark of lower class speech.

Our interpretation of the distribution in apparent time is confirmed by earlier records. The LA records of 1941 show /ʌy/ in the speech of 19 of the 25 informants. Those who did not use this phoneme used the constricted [ɚ] which is common today: five of these six speakers were classified as cultured informants, and one as intermediate.[12] Hubbell's studies were made only a few years later, but they include speakers 30 years younger than the youngest Atlas informants. The following array summarizes his findings for the 30 informants; the social class categories are assigned by me in accordance with the information given by Hubbell. The numerator of the fraction is the number using /ʌy/, the denominator the total number.

	SC 1	SC 3	SC 4
15-29		5/6	2/7
30-49	1/1		
50-59	1/1	1/1	1/3
60-69			3/3
70-	3/3	0/1	3/3

Thus we see that the process of stigmatization has made further progress since Hubbell's studies of the 1940's. The limited data of earlier studies are consistent with our

analysis of the relations of apparent time and real time for Case I-B, and with the more complete data provided in Table 3.

The distribution of (r) in apparent time

We can now turn to an example of Case II, a language feature with social prestige. The case of (r), one of the most important of the five variables, illustrates this type as precisely as the previous example illustrated Case I. The over-all distribution of (r) in apparent time is shown in Table 4 for ALS New York informants.

In this example, we will show second-order structure in which age levels form one linear set, class groups the second, and the index of the variable the third.

TABLE 4

AVERAGE INDEXES FOR (r) IN STYLE A BY AGE AND CLASS: OVERALL DISTRIBUTION

	SEC							
Age	0-1	2-5	6-8	9		N:		
8-19	00	01	00	48				
20-39	00	00	00	34	6	16	6	4
40-	00	06	09	09	3	13	9	4
					10	25	8	7

If we now refer to the diagram for probable distribution of features in the Case II-B, we see that Table 4 corresponds in every detail to that abstraction. To emphasize the contrast between the upper middle class and the rest of the population, we may consider the percentages of speakers who used any (r-1) at all in casual speech.

Age	SEC 0-8	SEC 9
8-19	08%	100%
20-39	04	67
40-	31	43

In casual speech, the great majority of New Yorkers remain completely r-less. Of the 25 speakers between 20 and 39 years old who are not class 9, only one used (r-1) in casual speech--and he only used (r-1) once. For older speakers, we see that small amounts of (r-1) pronunciation have crept into their speech. Although 31 per cent used some (r-1), the average value of the index remains at only (r)-05.

The upper middle class values are based on small numbers: only thirteen speakers are actually represented in Style A. However, their use is extremely consistent. Of the speakers in the 20-39 group, one of the six used no (r-1), but the rest all used high values. For the older speakers, most of the average (r) value is in the speech of one subject who was exactly 40 years old--a border-line case. His index was (r)-40: of the other speakers, four had indexes of 00, one 03, and one 16.

If we examine the younger speakers, 8-19, we find a comparable situation. There are only two upper middle class speakers who gave values for Style A: one at (r)-87, the other (r)-67. Two other speakers who did not actually give samples of casual speech were used with extrapolated minimum values to give the figure shown above. For the 28 speakers from other classes in the youth group, only two showed slight traces of (r-1).

Thus the over-all development of (r-1) in New York City in casual speech has not been a general increase in the use of this feature but rather an increase in sharpness of stratification. For the older speakers, (r) was apparently not a feature of prestige pronunciation, and did not serve to differentiate class groups. For younger speakers, there is a great gap between upper middle class and the rest, with (r) serving as a marker of this particular class alone.

We may now benefit from a closer examination of the distribution of (r) in apparent time. Figure 5 shows the distribution of average (r) indexes for four age levels and four class groups in Style A for ALS New York City informants. The broken horizontal line shows the level of (r) for the upper middle class, and the height of the bars shows the average (r) indexes for the three other class groups.

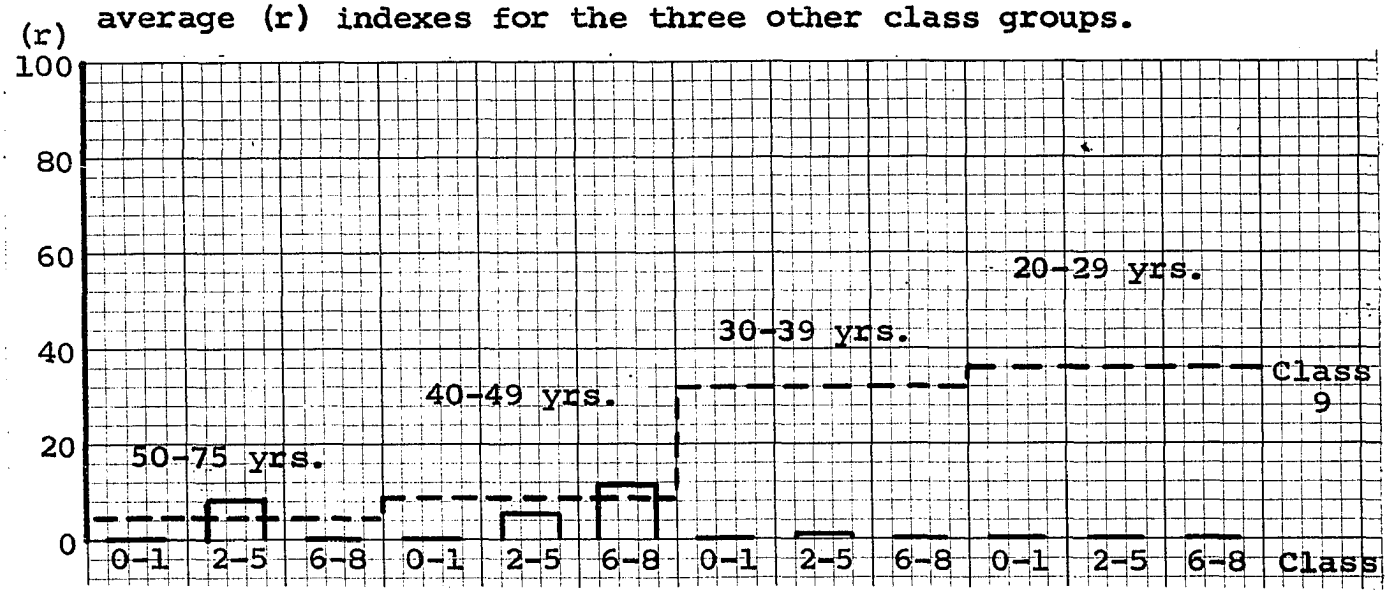
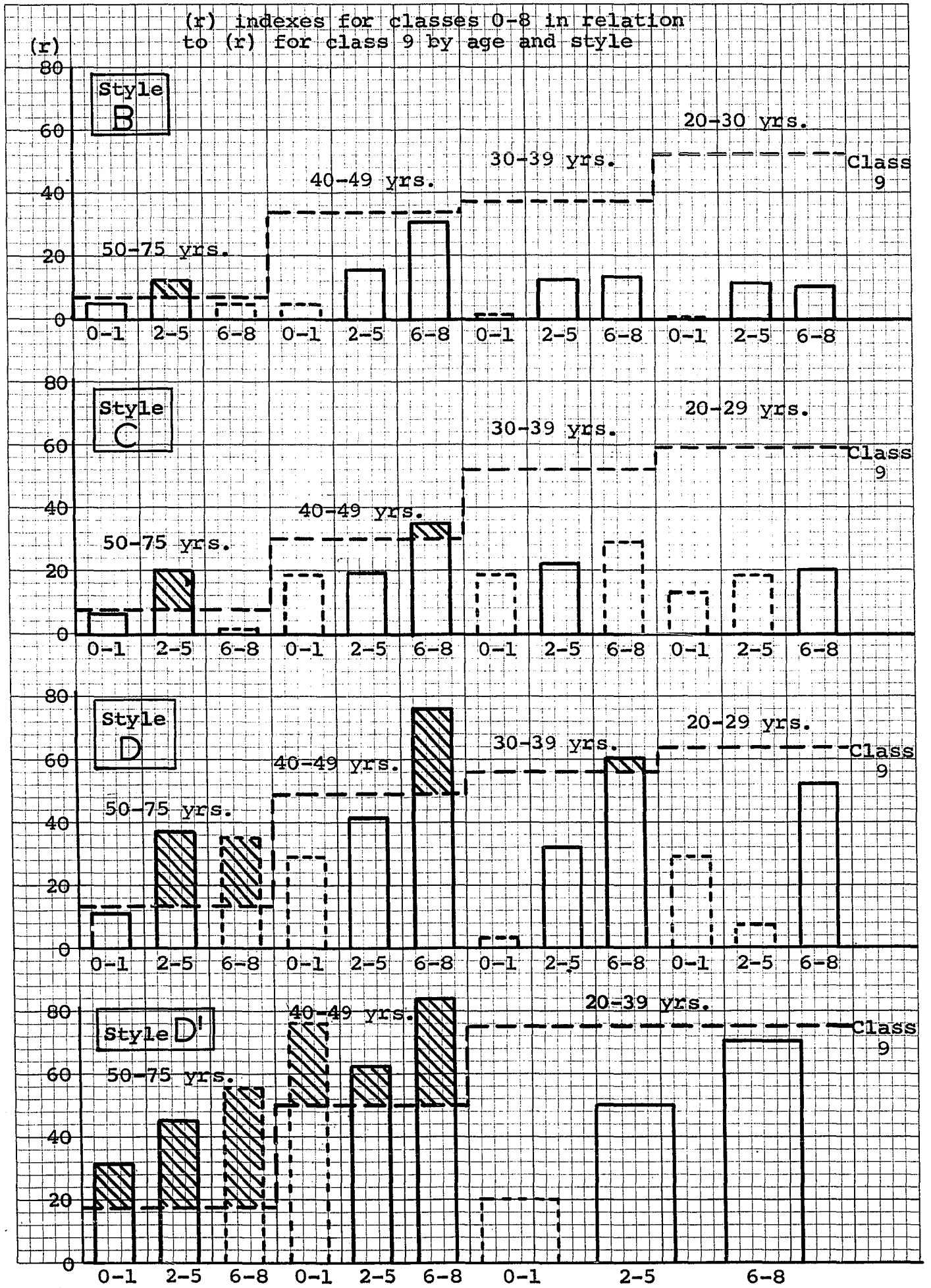


Figure 5

(r) indexes for classes 0-8 in relation to (r) for class 9 by age in Style A

Figure 5 illustrates graphically the lack of contrast between the upper middle class and other classes for the older

Figure 6



age levels, and the extreme contrast for the lower age levels. It is introduced here primarily for comparison with Figure 6, which shows the same diagram for Styles B, C, D, and D'. In these diagrams we see a third-order structure: the second-order structure of Figure 5 is repeated for styles which form a linear set. The array of relations is structured in three dimensions. In this progression, the pattern is not repeated without change: there is third-order progression imposed on the second-order structure in which the lower middle class and other lower ranking classes show more rapid increase of (r) index with increasing formality than the upper middle class does.

From top to bottom of Figure 6, we see stylistic variation, with more (r-1) used regularly by all sub-groups. From left to right, we see a larger pattern of age variation imposed on a pattern of social variation. The age variation is itself divided along two contrary lines: the upper middle class moves up from left to right, and the other classes move down from left to right, starting with the second age level. For the three classes shown as 0-1, 2-5, and 6-8, the amount of (r-1) used increases steadily in that order for nine of the fifteen cases.

This pattern confirms in detail the mechanism suggested in the discussion of Case II. In Style A, it was difficult to see the shift of the middle-aged members of the lower middle class with the same clarity that is seen in the whole stylistic range. As far as the oldest speakers are concerned,

all of the values are at a very low level for Styles A, B, and C, so that the question of which is higher is not particularly meaningful. However, when we examine Style D', we see that there is a tendency for even the oldest speakers of class 0-8 to go beyond the (r) level of the upper middle class speakers.

The hatched portions of the bars indicate the proportion by which speakers from class 0-8 go beyond the (r) index of the upper middle class. The hypercorrection of the lower middle class carries it beyond the highest level of any upper middle class speakers in Styles D and D'. However, it is worth noting that even the lower class moves in this direction among the speakers 40-49 years old in Style D'.

As we examine the record for Style D', it is plain that the source of (r-1) pronunciation for the 40-49 group is not the upper middle class of their own age level. On the contrary, this group of lower middle class speakers seems to be oriented towards a prestige norm maintained by younger speakers, such as those in the 20-39 age level. In this age level, the upper middle class does seem to represent the maximum use of (r-1) at which all other groups are aiming in formal styles. This indicates a more stable relationship between the four classes than the situation in the older age levels.

One of the problems of this analysis is that in dividing a sample of 94 speakers into fifteen groups, we have a great many unreliable cells. These are represented by bars with broken lines in Figure 6--groups with less than five speakers.

X-31

We can correct this situation for Style B by augmenting the sample with the twenty-five subjects interviewed in the television survey. Altogether, these twenty-five informants display the rough outlines of the pattern of age and class stratification in Style B. Table 5 shows the average values for the television interviews alone.

TABLE 5

DISTRIBUTION OF (r) INDEXES IN STYLE B BY AGE AND CLASS FOR TELEVISION INTERVIEWS

Age	0-1	2-5	6-8	9	N:
20-29	-	00	-	63	0 1 0 2
30-39	00	02	-	-	1 2 0 0
40-49	03	02	15	28	3 5 4 2
50-	00	-	16	-	1 0 4 0

It should be noted that the context of the television interviews lies somewhere in between Context B and Context A of the ALS interviews, though somewhat closer to B. Appendix C correlates the ALS interviews and television interviews for ten speakers randomly selected who were interviewed by both methods. In the light of Table 5, we can feel justified in adding these 25 speakers to the ALS New York informants in Style B. The result is Figure 7. The bars with broken outlines can now be replaced by solid bars, and all four age levels are seen to be arranged in the order of 0-1 lowest, 2-5 next, and 6-8 highest. Each increment to the sample has thus produced greater rather than lesser regularity in the social stratification of (r), lending additional confirmation to the initial statement of Chapter VII.

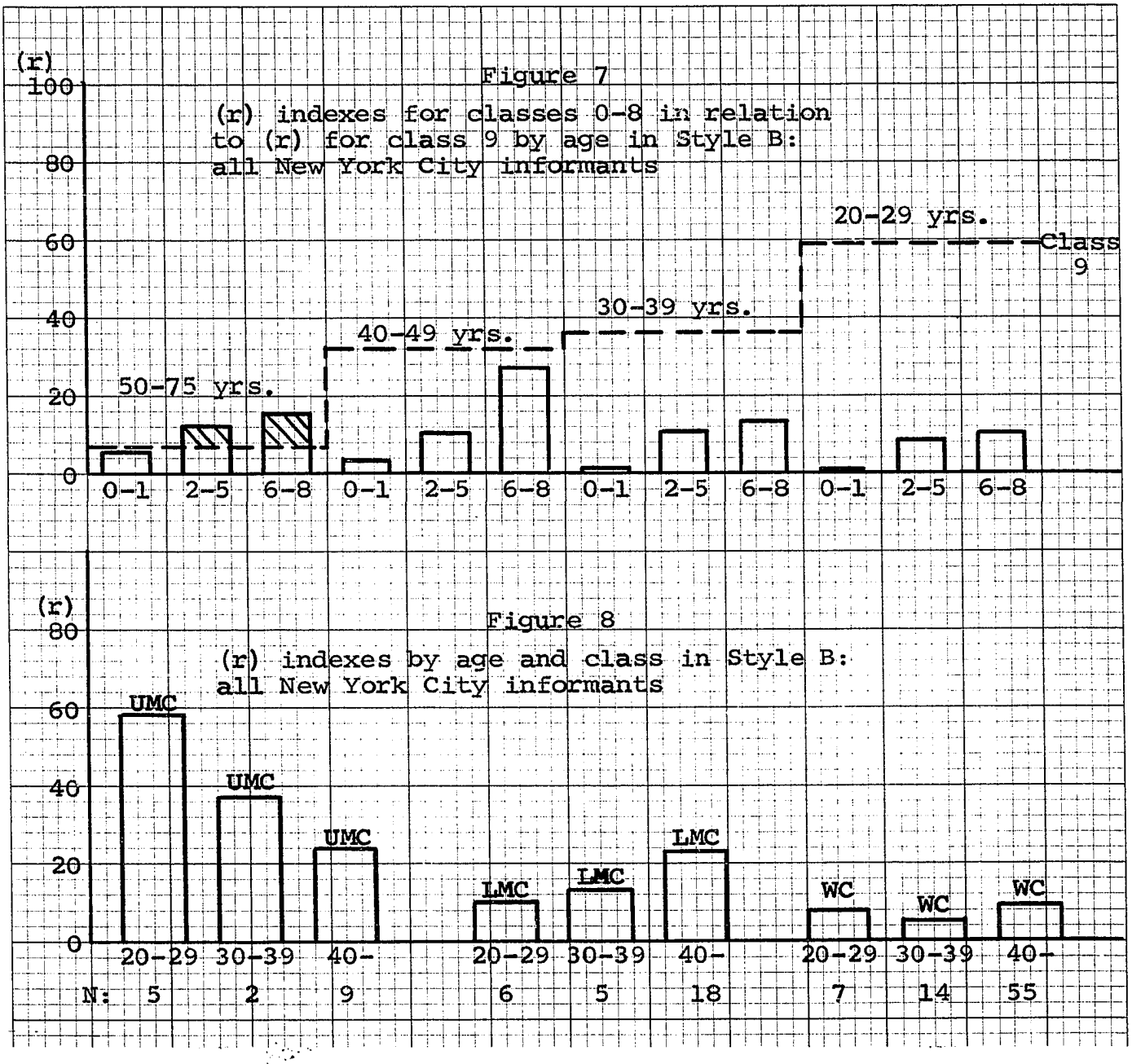


Figure 7

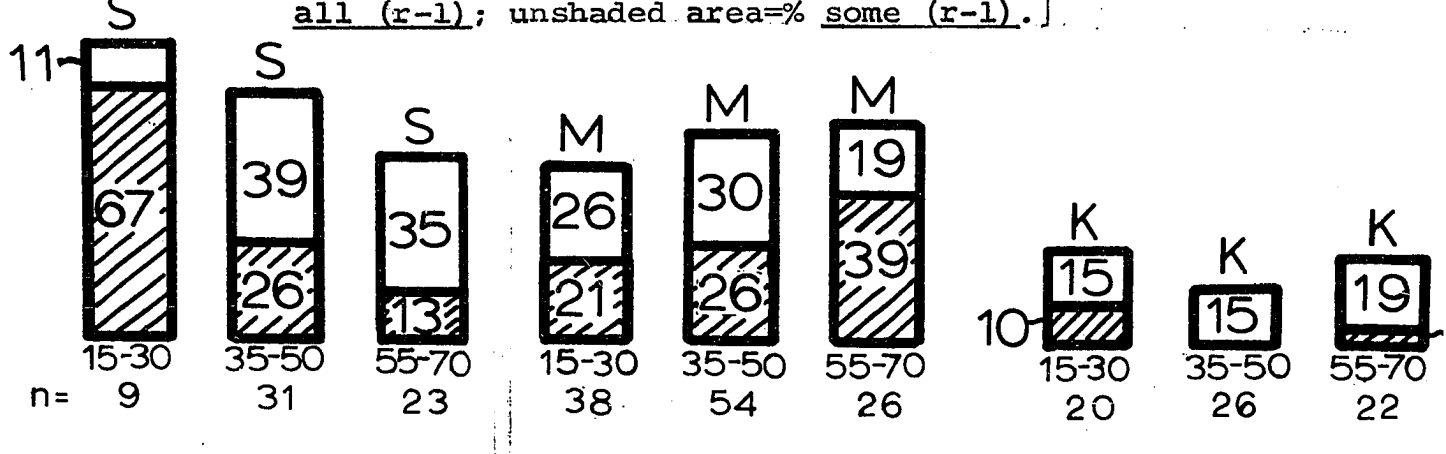
(r) indexes for classes 0-8 in relation to (r) for class 9 by age in Style B: all New York City informants

Figure 8

(r) indexes by age and class in Style B: all New York City informants

Figure 5, Chapter III

Stratification of (r) by store and age level [S=Saks, M=Macy's, K=Klein's. Shaded area=% all (r-1); unshaded area=% some (r-1).]



EX-21

33

The department store survey

In Chapter III, the results of a survey of department store employees were presented to show the stratification of (r) within a single occupational group. This procedure was quite apart from the methods, materials, and population of the Lower East Side Survey. It involved errors of approximation due to several factors: the small amount of data per informant, the method of notation, the method of sampling, the estimation of age of the informant, and the lack of background data on the informants. To compensate for these sources of error, we had the uniformity of the interview procedure, the location of the informants in their primary role as active employees, the relatively large number of cases within a single cell, the simplicity of the data, and above all the absence of the biasing effect of the formal linguistic interview. The ALS survey is strong in precisely those areas where the department store survey is weak, and the sources of error are exactly the opposite. These two approaches to the social distribution of (r) are therefore complementary: if the results converge, we will have reduced the likelihood of bias or error to a very low point.

One of the problems in the department store survey was that the interviewer was simultaneously the transcriber and the maker of the initial hypothesis. However, the initial hypothesis did not go beyond the facts of simple social stratification. The distribution of (r) in apparent time was not analyzed at that time. Therefore the results shown in

Figure 5 of Chapter III were totally unexpected and difficult to understand. Instead of a uniform increase of (r) with decreasing age for each department store, we obtained such a result only for the highest ranking store. The middle ranking store showed the reverse progression, with the older speakers showing most (r-1) and the younger speakers the least. Finally, the lowest ranking store showed no direction of change at all. The explanation given at that time, as quoted in Chapter III, was considered only tentative, without sufficient evidence. The hypercorrect pattern of the lower middle class, and its role in linguistic change, had not been demonstrated by such quantitative methods as were used in Chapters VII and VIII. The cross-over pattern of the lower middle class provides the synchronic evidence for the analysis of Case II-B in the present chapter, which places the role of this class in the larger context of the relations of aging and adjustment to the native speech pattern.

We can now make a direct comparison of the department store survey with the results of the ALS survey. Figure 8 is an adaptation of Figure 7 for that purpose. Directly underneath the comparable diagram of Figure 5, Chapter III is reproduced.

Despite the fact that the populations studied were different, that the methods were totally opposed, and that the sources of error were complementary, both diagrams show the abstract structure of Case II-B. Point by point, the structure of these two figures match. The adoption of a prestige

X-35

factor by the highest ranking group, the corresponding shift among the older members of the middle ranking group, and the relative indifference of the lowest ranking group are the main features of linguistic structure which display the effects of linguistic change.

We may now turn to the evidence of the Linguistic Atlas on the use of (r) in New York City before World War II. The twenty-five Atlas informants for New York City were selected as individuals whose parents and grandparents were born in New York City, and as representatives of the following social levels:[13]

I. Persons of little formal education, little reading and restricted social contacts.

II. Persons of better formal education [usually High School] and/or wider reading and contacts.

III. Persons of superior education [usually college], cultured background, wide reading and/or extensive social contacts.

These mixed criteria evidently offer wide latitude for the subjective judgement of the field worker, who was not so much sampling a population as searching for pre-determined types.

The informants for the Atlas may also be classified according to their age:

A. Aged, and/or regarded by the field worker as old-fashioned.

B. Middle-aged or younger, and/or regarded by the field worker as more modern.

C. The youngest Atlas informants, 45 to 48 years old. [A distinction added by Frank].

Again, we see that the definitions are extremely informal, and give the field worker ample room to set aside chronological age in favor of his subjective impressions.

Although the limited numbers of the Atlas survey, and the informal nature of the categories, set obvious limitations on the use of the data for a study of social stratification, we may obtain some broadly qualitative indications of the direction of linguistic change from these records.

The evidence on final and pre-consonantal (r) is summed up by Frank in the following manner [p. 84]:

> The post-vocalic /r/ is almost regularly actualized as the non-syllabic sonorant [ə]. In words of the type of bar and burr it is usually actualized as vowel prolongation. However, two informants use [ə̯], a weakly constricted postvocalic /r/, less frequently strongly constricted [ɚ] in two-fifths to two-thirds of the test words. One of these is the Queens County informant who was educated in areas where /-r/ is usually of the constricted type. The other is the younger informant on Staten Island, an area partially under New Jersey influence.

This statement brushes aside a good deal of the data which is presented in the chart which Frank herself supplies. Not two, but nine of the twenty-four speakers listed on this chart show some constricted forms. Four of these are old [three I-A, one II-A], four are middle aged [three II-B, one III-B], and one is from the youngest group [I-C]. Thus instead of accepting the fact of variation as an inherent tendency of the population, Frank attempts to explain away the major deviations and ignores the minor ones, in the interest of regularity. Yet for the ten test words listed, and the twenty-four informants listed, we have 11% constricted forms: 27 out of 240. And this sample is intended as the most homogeneous group of native New Yorkers which could be assembled.

We can conclude from the Atlas records that the raw

IX-37 material for the social stratification of (r) was present in New York City before the second World War, and we need not think of the sudden rise of the prestige of (r) as the creation of a new structure ex nihilo. On the other hand, Babbitt gives no indication of any variation from the r-less pattern of the city.

Hubbell's records show slight traces of (r-l) in the speech of five out of his nine informants over 60 years old; all five are in his upper middle class group. Three of his four middle-aged speakers showed some (r-l). We can divide the fourteen college students into an upper middle class group of eight and a lower middle class group of six, depending on the family background. Six of the former group showed some (r-l), and three of the latter.[14] In these reports, we see a little more resemblance to the structure which governs the use of (r) among our respondents. However, the limitations of the data and the informal method of reporting make it difficult to interpret this material, and we must be careful not to impose too much structure upon it.

The most reliable record for the beginning of the present structure of (r) is in the usage of the upper middle class ALS informants in casual speech. Their record points to a sudden change for the New Yorkers under 40 years old. The dividing line seems to be closely associated with the period of World War II. The age group which is now 40 to 49 years old was born in the years 1914-1923, and was educated in the New York City schools in the years immediately preceding World

War II. A person who is now 41 years old would have graduated from high school just before the outbreak of the war. On the other hand, a person who is now 35 years old was only 16 when the war broke out. Most of the group now between 20 and 39 years old was educated in schools during the war and directly after. The youngest adult in our sample, now 20 years old, was born in 1933, and entered high school just at the end of the war. Thus the period of World War II coincides with the sharp break in (r) usage; we may explore this question further in Chapter XI, when we examine the development of subjective reactions towards (r).

The distribution of (eh) and (oh) in apparent time

We now proceed to the analysis of the difficult cases of (eh) and (oh), which should correspond to Case III according to previous indications. In the discussion to follow, Style A will be used for all tables, with the exception that for those under 16, the highest value recorded will be used.[15] Instead of using socio-economic class for (eh) and (oh), as we did in the previous chapter, we will use the social class index. There is little difference for these variables, but the social class groups seem to correspond to groupings which are closer in time to the pre-adolescent period, and therefore more appropriate for a study of linguistic change.

We may show the over-all distribution of (eh) by social class and age for ALS New York City informants in Table 6.

IX-39

The relations of the classes here conform not to Case III, but to Case II-B: a prestige marker with linguistic change in progress.

TABLE 6

AVERAGE (eh) INDEXES BY SOCIAL CLASS AND AGE: OVER-ALL DISTRIBUTION

	SC				
Age	1	2	3	4	
20-39	24	24	22	35	
40-	27	26	25	31	N:
					2 11 5 4
					17 8 10 6

We see that the upper middle class has shifted towards more open (eh) vowels, and the other classes towards higher, closer variants. The resulting diagram is not that of a shift in the native pattern of (eh), but rather the progress of a prestige marker. The prestige marker is the correction of (eh-2) to (eh-4), which is an extremely common tendency among all classes in more formal styles. The upper middle class shows (eh-2) and (eh-3) in the speech of its older members; younger members have begun to incorporate the open vowel of (eh-4) into casual speech. We might say that the other classes show the reverse pattern, with the older speakers acquiring some of the prestige element (eh-4) in their own speech.

However, such an explanation would not predict such a progression for the lower class, which is normally less sensitive to prestige markers. Yet we have a regular rise in the height of (eh):

X-40

	SC 1
8-19	20
20-39	24
40-49	26
50-59	28
60-	28

We are therefore probably dealing with a case of III-B, change from below with the addition of a later reaction from above. The pattern of the lower class would represent the later stages of the increase of height of (eh), which has reached the lower class later than the other classes. At the same time, the lower class would remain less affected by the more recent addition of the corrective factor imposed from above.

Earlier analyses of (eh) showed that ethnic factors were more important than socio-economic factors in the over-all social stratification. We may therefore benefit from a re-consideration of the age distribution of (eh) in terms of ethnic groups rather than social class, for all but the upper middle class.

TABLE 7

AVERAGE (eh) INDEXES BY AGE AND ETHNIC GROUP: DETAILED DISTRIBUTION

	SC 1-3			SC-4
Age	Jews	Italians	Negroes	(All ethnic groups)
8-19	22	20	24	33
20-39	23	19	28	35
40-49	27	18	33	31
50-59	29			

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In this table, we do not have enough cases to show detailed distribution for older speakers, except in the case of the Jews. Sufficient information is available, however, to show that the pattern of linguistic change is quite regular for Jews and Negroes, but not the Italians. Since the Italians have by far the highest vowels [corresponding to the lowest (eh) indexes] we may consider that the upward shift has more or less been completed for them.

It is evident that the lower class speakers over 60 have not participated in this process.[16] We may therefore conclude that the upward movement of (eh) began sometime before the first World War, affecting the Italians first, then the Jews, and the Negroes. Babbitt's evidence on (eh), to be given in detail in Chapter XII, indicates an even earlier raising in the 19th century, in which bad, bag, hand, etc. were consolidated with ask, bath, dance, etc., at a mid-front position. The upper middle class has begun to move in the opposite direction, in response to the stigmatization of the high vowels, and the new forms of low (eh) vowels have been accepted as prestige markers. We have already seen that hypercorrection of the lower middle class is a powerful factor in more formal styles for (eh). The result of such hypercorrection is a third-order structure similar to Figure 6, for (r). But the additional complication of ethnic variation implies a recurrent third-order structure; this complexity can be inferred from Table 6 and 7, though we do not have enough cases to show the structure in detail.

Thus the pattern formed by social class in the dimension of apparent time illustrates the progress of the prestige

X-42

marker (eh)-4. The pattern formed by ethnic groups in apparent time illustrates the upward movement of the vowels in accordance with the general model of change from below.[17]

We may now consider the over-all distribution of (oh). The following table shows the average indexes for the ALS New York informants.

TABLE 8

AVERAGE (oh) INDEXES BY AGE AND SOCIAL CLASS: OVER-ALL DISTRIBUTION

	SC							
Age	1	2	3	4	N:			
20-39	21	22	18	22	3	12	6	5
40-	23	22	19	22	17	9	12	6

This table does not indicate any pronounced contrast between older and younger speakers. However, if we now construct a table in which ethnic group is the principal factor for the three lower status groups, we see a very clear pattern:

TABLE 9

AVERAGE (oh) INDEXES BY AGE AND ETHNIC GROUP: DETAILED DISTRIBUTION

	Social Classes 1-3			SC 4
Age	Jews	Italians	Others	
8-19	17	18	22	23
20-35	18	18	(16)	22
36-49	17	20	18	22
50-59	15	20	15	22
60-	25	30	25	-

This table corresponds to the abstract pattern of Case III-A. It shows change from below at an earlier stage than the case of (eh). Although there has been a reaction from above against the high vowels of (oh), it is not yet pronounced enough to show in these average values for casual speech. It seems that the rise in (oh) started with the Jews, and that the Italians show a corresponding rise later in apparent time. The Negroes do not show a regular pattern for this variable, either in stylistic or in social variation, and data for them are not shown here.

It should be pointed out that the values for the oldest groups reflect the usage of lower class speakers only. If we had speakers of that age from SC 2 and 3, we might find that the rise has been less sudden than Table 9 would indicate.

Figure 9 shows the distribution for Italian speakers,

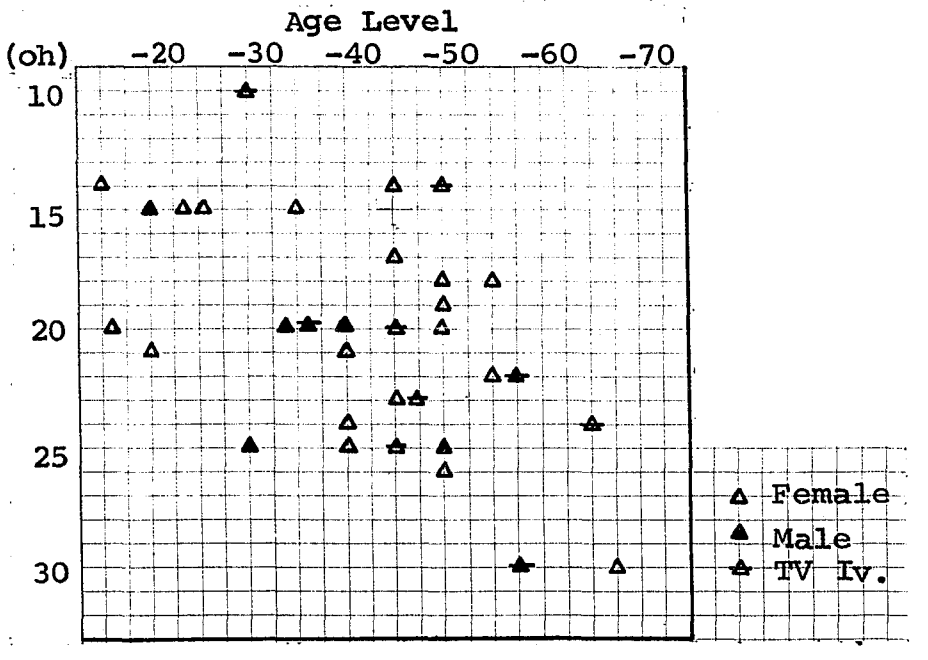

Figure 9

Distribution of (oh) values for Italians by age

X-44

with the general pattern of increasing height of (oh). The break between age 30-34 and 35-39 seems more appropriate than at 39-40. The barred symbols in Figure 9 represent Italian speakers interviewed in the television survey. The context of the television interview is somewhat more formal than Context A, but the over-all pattern formed by these speakers is the same as the pattern formed by the regular ALS subjects.

The records for previous studies of (oh) are difficult to interpret, since the description of the variants in articulatory terms differ from one investigator to another, and there are no phonemic levels to which the reports may be tied.[18] Babbitt's evidence, to be given in detail in Chapter XII, points to a general level of (oh) lower than (oh-3). The Atlas records show a raised form of (oh), and a lowered form, in addition to the principal variant written as [ɔ:] or [ɔ:^{ə}]. The lowered variant appears to be the Eastern New England type, (oh-5), and there is some indication of its use by older, "cultured" informants. The raised variant, (oh-2) or (oh-3), is used most by younger "uneducated" informants and the older "intermediate" informants. Such a distribution does not present a clear view of change, though Frank has the impression that raised (oh) is gaining ground. Hubbell's records show a much less ambiguous picture. The oldest informants use the most open vowels, and the youngest informants the highest, or in Hubbell's description, "most retracted." The extreme forms seem to have been used by three college students: two that we might rank as SC 3, and one as SC 4. The indications of change are much plainer than in the case of

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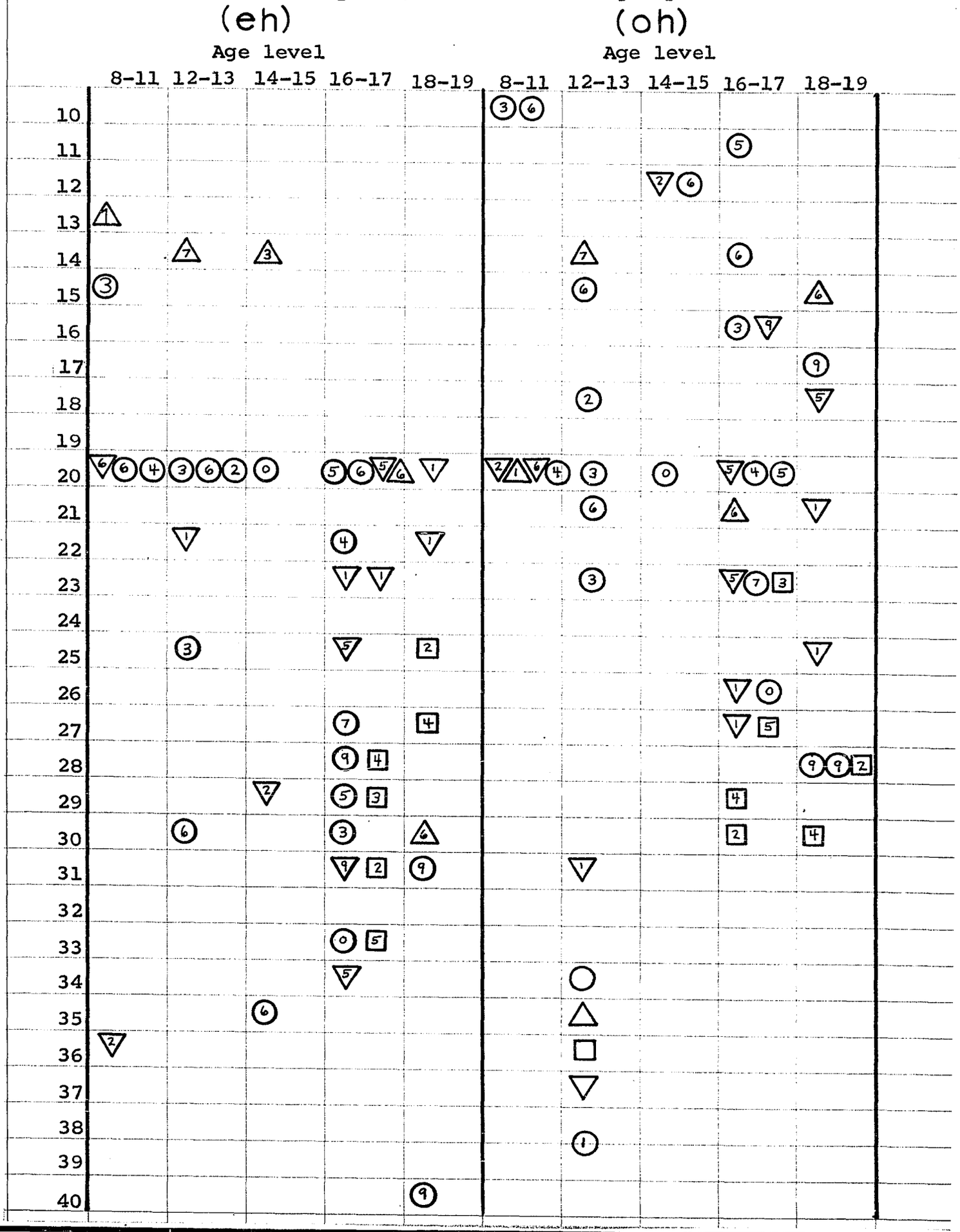
(eh), if we interpret the remarks of Hubbell correctly.

We have seen two examples of change from below. In both cases, we must ascribe to the linguistic features a measure of social significance. As indicated above, the social significance of most changes from below is a form of self-identification, of group membership, which establishes the speaker as an authentic representative of a sub-group within the community. Since identification as a Jew or an Italian has long been an important social theme for New Yorkers, it is understandable that (eh) and (oh) should be involved in this opposition. We see now that the contrast between Jew and Italian in the use of (eh) and (oh) is diminishing, and at the same time the social class identification afforded by these variables is gaining in importance. It is not possible to document the social history which parallels these linguistic developments within the pages of this study. However, it appears that the traditional orientation of New Yorkers into a three-cornered structure of Jews, Irish and Italians is giving way to new social patterns. The white population is now contrasted as a whole with Negro and Puerto-Rican groups.[19] This contrast is re-inforced by social and economic patterns of increasing stratification, in which the privileged groups are sharply opposed to the underprivileged. We may find linguistic parallels for these developments in the examination of the distribution of (eh) and (oh) for those under 20 years old.

Figure 10 shows the distribution of these two variables by age, ethnic-group and socio-economic class.[20] We see that

Figure 10

Distribution of (oh) and (eh) for age levels from 8 to 19 by sex, SEC and ethnic group



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the concentration of (eh) at (eh)-20 is greater than that of the corresponding group at (oh)-20, a fact which will assume considerable importance in the study of phonemic structure in Chapter XII. Both diagrams show some tendency for young children to use higher vowels than older children. The most significant fact, however, is the social distribution below (oh)-23. The speakers who use (oh) forms of this range consist exclusively of three types:

1. Upper middle class.
2. All of the Negro informants.
3. Lower class white informants.[21]

The clustering of lower class white values with those of Negro speakers is part of a general tendency in New York City English which was observed in exploratory interviews. The gradual evolution of New York City speech towards higher (oh) forms has not been followed by Negro speakers, and there is a group of lower class whites whose speech resembles that of Negroes in several ways.[22] The situation for (eh) is not as clear, and there are other speakers from the working class and middle class who are found in the same area. It is (oh) which follows the curvilinear pattern to perfection, with lower class, Negro and upper middle class in close juxtaposition. [There are three other upper middle class speakers at exactly the same level in the 25-29 age level.]

In the discussion of other variables in Chapter X, we will see further instances of the grouping of Negro and lower class white speakers.

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The distribution of (th) and (dh) in apparent time

The great majority of New Yorkers use some stops and affricates in their every-day speech for the variables (th) and (dh). However, there are few native speakers who rely primarily upon stops and who rarely use fricatives. There can hardly be any question that the stop form of (th) or (dh) is an example of a stigmatized feature: what we have to determine is whether any change can be inferred from the distribution in apparent time. The overall distribution of (th) and (dh) for ALS New York informants in Style A is seen in Table 10.

TABLE 10

AVERAGE (th) AND (dh) INDEXES BY AGE AND SOCIAL CLASS: OVER-ALL DISTRIBUTION

		Social Class							
	Age	1	2	3	4	N:			
(th)	20-39	111	46	34	06	3	12	6	5
	40-	92	30	23	18	19	5	7	3
(dh)	20-39	109	59	41	10	3	12	6	6
	40-	87	45	18	32	20	8	10	5

The consistent pattern of differences that we see here is in accord with the discussion of Case I-A [stigmatized feature--without linguistic change] as concerns relations of older and younger speakers of classes 1-3. However, the fact that the upper middle class speakers show a reverse trend was not predicted for this case. We might then interpret this table as Case II-B: the introduction of a prestige feature. A style

of speech without any stops or affricates for (th) and (dh) would be the new prestige feature. But such an interpretation runs against the grain of our native intuition; the experience of this study shows that it is not the pronunciation of fricatives which has social significance, but rather the use of stops or affricates. [See Chapter XI for evidence on this point.] Furthermore, there are some concrete facts of distribution which argue against this interpretation.

1. The patterns of (th) and (dh) for age distribution are much less marked than that of (r). If we sum the three lower classes, we reverse the relations of the age levels for (th) and (dh), but not for (r).

	(th) SC 1-3	(dh) SC 1-3	(r) SC 1-3
20-39	57	59	00
40-	69	61	05

Here we see that the older groups use more stops and affricates than the younger groups. This shift is a product of the skewed distribution of the informants, but it illustrates that there is a qualitative difference between the relations of the age levels for (r) on the one hand, and for (th) and (dh) on the other.

2. The age distribution of (th) and (dh) does not have the regularity of the (r) pattern. For example, compare the distribution of (dh) and (r) by age levels in Styles A and B, in Table 11.

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TABLE 11

AVERAGE (dh) AND (r) INDEXES BY AGE AND SOCIAL CLASS FOR STYLES A AND B: DETAILED DISTRIBUTION

Age	SC 1	SC 2	SC 3	SC 4	SEC 0-1	SEC 2-5	SEC 6-8	SEC 9
Style A								
20-39	78	69	39	08	00	00	00	35
40-49	124	55	44	12	00	00	00	32
50-59	107	34	19	44	01	06	10	18
60-	68	72	12	14	00	08	00	05
Style B								
20-39	140	40	29	00	00	11	10	51
40-49	96	45	36	01	01	12	13	36
50-59	71	20	13	18	05	15	30	33
60-	52	53	04	04	05	12	05	06

In the case of (dh), the peak is different for each class and age level. In the case of (r), the high point for the three lower classes, is regularly the 40-49 age level and a much more regular progression is shown for the highest ranking class. This difference is all the more striking when we consider that the (dh) variable provides even more data for each informant than (r), and therefore should be more reliable.

These differences emphasize the fact that the alternations of age levels for (th) and (dh) are not as firmly fixed and consistent as for the variable (r) which is clearly in process of rapid change. However, the general outlines of the differences between older and younger speakers in the use of (th) and (dh) hold for the individual social classes. Even when we try to control for the factors of sex and ethnic group, this difference persists. Figure 11 is a distribution chart

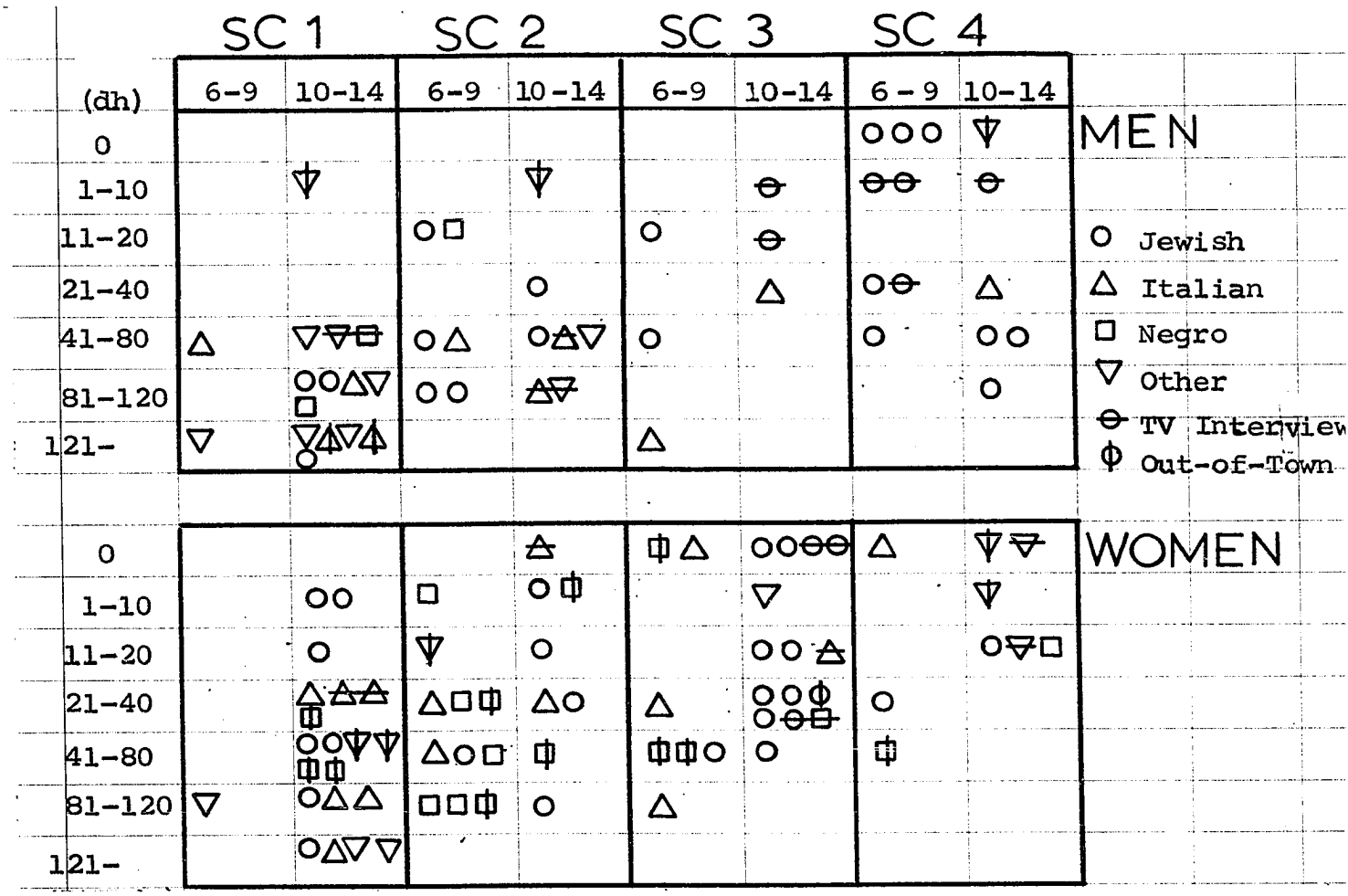

Figure 11

Distribution of (dh) in Style A by age, sex, ethnic group and social class: all informants

for (dh) in Style A which allows us to compare sixteen different groups, paired as younger and older halves with the same social class and sex. In order to build up the number of cases, the data for television interviews have been included, and the out-of-town speakers as well [since we have seen that stratification for out-of-town speakers is essentially the

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same as for New Yorkers.] The values for the television interviews are undoubtedly low for Style A, as discussed in Appendix C, but they may be taken here as minimum values.

It is difficult to make comparisons for SC 1, because we do not have enough younger speakers. However, for SC 2 and 3, for both men and women, the tendency for younger speakers to have higher values is evident.

This is in accord with the analysis for Case I-A. If change in the social significance of (th) and (dh) had been in progress, we would expect to find the reverse relationship for age levels in SC 1-3.

The situation for SC 4 does not show the uniformly low values which we would expect for a long-standing reaction to a stigmatized feature. The upper middle class men show a tendency to reverse the relations of the other classes, and indicate an increasing sensitivity to (dh) in apparent time. The addition of the television interviews does not eliminate this tendency. According to the evidence presented here, there has been some change in the social significance of (dh) for the upper middle class. As far as women are concerned, there is no such trend to be inferred from the data, but we have insufficient numbers in SC-4 to permit any close comparison.

The Linguistic Atlas was not greatly concerned with these consonants. Only one page of Frank's monograph is devoted to (th) and (dh), reflecting the general lack of interest in consonants for the Atlas as a whole.

Frank notes that the affricate (th-2) occurs in the speech of young uneducated New York City informants in all positions--

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word initial, medial and final. She adds that the dental [t̪]--that is, (th-3)--occurs in free variation with (th-2) in the speech of these informants in initial or final position [page 80]. This agrees well with the data of the present survey, if we consider that only the stressed replies to questions about lexical items enter into the Atlas results. A great many of the (th) forms occur in phrases such as something like that or I think, and (th) is relatively rare when these are eliminated from the data.

The information on (dh) is no doubt defective. Frank writes that "two instances of the voiced stop /d/ for /ð/ occur in the speech of two young uneducated informants as in without and the both of us. This feature has probably been borrowed recently from non-English speech." [page 81].

In the speech of native New Yorkers, the variant (dh-3) is seldom to be confused with the phoneme /d/, as it has neither the slight aspiration nor the degree of voicing associated with /d/. It may also be noted that since the Atlas records rarely contain unstressed forms, (dh-3) in words such as the, then, this, that, would not appear at all. We do find that the same distribution of (th) existed in the 1930's as today: younger uneducated informants use more than older uneducated informants. This evidence does suggest once again the stability of the (th) and (dh) pattern.

In Hubbell's records, we find a class distribution not too dissimilar from that in the ALS survey. He found traces of (th) stops in the speech of only 2 of his 16 upper middle

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class informants, and none for (dh). The lower middle class informants showed more stops: only four of the nine showed none, and two speakers showed moderate to heavy use of stops for both (th) and (dh). All of the lower class informants used some stops, and two of them showed very heavy use. The limited data given by Hubbell do not indicate any clear evidence for difference in age levels, though the younger speakers show higher percentages of stops for the two lower ranking groups.

Interpretation of the relation of (th) and (dh) to linguistic change becomes more problematical after considering the evidence of Hubbell and the Linguistic Atlas. While both show a pattern which our analysis has associated with stability--the younger informants showing more of the stigmatized forms than the older ones--the general frequency of stops and affricates seems to be much lower than in the ALS survey. It is very difficult to accept the notion that a high level of stops and affricates in New York City speech is a new development. Writers have noted this characteristic of working class speakers for many decades. For example, O. Henry describes the speech of a New York City boy at the turn of the century in this way:[23]

> There was a smart kind of a kid in the gang--I guess he was a newsboy. "I got in twenty-fi' mister," he says, looking hopeful at Buck's silk hat and clothes. "Dey paid me two-fifty a mont' on it. Say, a man tells me dey can't do dat and be on the square? Is dat straight? Do you guess I can get out my twent-fi'?"

Babbitt's report on (th) and (dh) could have been written today. He describes these consonants as social variables, which

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native speakers sometimes pronounce as fricatives, and sometimes as stops.

> The most striking and important peculiarity in consonants is the substitution of t and d for θ and ð. This does not take place in all words, nor in the speech of all persons, even of the lower classes; but the tendency exists beyond doubt . . . . I observed very few cases of natives who could not, and did not in some words, pronounce the interdentals correctly; and the substitution of d and t for them . . . is not heard in the speech of the better classes.

Babbitt then notes that there is no phonetic rule for the occurrence of the stop form; he believes that it is tied to frequency.

> The definite article, the pronouns this and that, the ordinal numerals in th, and such every-day words, are almost uniformly pronounced with the d or t, while anything in the nature of a "book-word" keeps the orthodox interdental.

In the ALS interviews, stops and affricates were used most often in the most frequent words, although this is undoubtedly connected with the fact that the rarer elements of the vocabulary occur primarily in careful speech. For instance, method and parenthesis, Babbitt's examples of words used with fricatives, do not occur in casual speech as a rule. The fact that the Linguistic Atlas reported such a low frequency of stops and affricates is probably due to two factors: [1] a bias of availability, leading to a selection of informants whose speech habits were not representative, and [2] a concentration upon stressed lexical items, rather than the entire speech production of the informant.

Not only is the usage of (th) and (dh) reported by

X-56 Babbitt the same as observed today, but the social significance of these variables appears to be the same. Babbitt notes that newspapers ridicule working class speech by writing De Ate for The Eighth [Assembly district], just as they ridicule the use of /ay/ as "goil" and "woild." The social distribution of (th) and (dh) variants has not, however, undergone the rapid evolution of /ay/, but remains almost as it was at the turn of the century.

Thus the evidence of Babbitt confirms the analysis of distribution in apparent time, that (th) and (dh) are variables which show little indication of linguistic change in progress.

Summary

This chapter has been devoted to the interpretation of age differences in the values of the five phonological variables. In order to utilize this information, we analyzed the possible relations between the dimensions of apparent time and real time. We then used the results of such analysis to interpret the facts of distribution. Because variation through the age levels of the population is imposed upon stylistic variation, class variation, and differences in ethnic groups and the sexes, this distribution is necessarily complex. The presuppositions about the behavior of the various classes which we used were admittedly speculative, and the evidence of previous chapters could only be adduced for probable indications of the directions in which the classes would move. However,

the convergence of the department store survey and the survey of the Lower East Side decreased the likelihood of error in the interpretation of (r) to the point where we may regard this as firmly established as any of the findings in Chapters VII and VIII.

In Chapter VII, it was pointed out that there were two deviations from regular structure which were recurrent: the lower middle class cross-over, and the style reversal of the upper middle class, both in Style D. The first was found in the structure of (r), (eh), and (oh); the second in (eh) and (oh). If the cross-over was to be considered as re-defining regular structure, then (r), (eh) and (oh) must be considered a homogeneous set as opposed to (th) and (dh). We posited that the first three variables were involved in linguistic change, and the second two were not. The evidence of this chapter has given the needed confirmation to this claim. It was also posited that (eh) and (oh) represented change from below, and that the upper middle class reversal in Style D was associated with this set. This conclusion must still be regarded as tentative, since the interpretation of the (eh) and (oh) patterns in apparent time was complex and required larger sampling of Italian respondents for a definitive solution.[24]

Despite the difficulties of such analysis, we obtained a view of structures considerably more complex than those of Chapter VII by the repetition of structural patterns through the linear set of age levels. In the case of (r), we dis-

played a clear example of a third-order structure, by studying all stylistic levels. It is apparent that the second-order structures of (eh) and (oh) would also display third-order structures if repeated for all stylistic levels, though perhaps not as regular as that shown for (r).

In the following chapter, we will briefly examine the distribution of some interpersonal variables, which show no systematic variation on the stylistic axis, but which are a part of the structure of social variation. The analysis of the relations of apparent time and real time as developed in this chapter will be applied to these variables as well. The results will add new confirmation to our view of the linear structure of the class scale, and lay the foundation for the over-all synthesis of the variables into a single structure.

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NOTES TO CHAPTER IX

[1]Some important differences in method between the LA, Hubbell's survey, and the present study may be summarized as follows: [1] Population: Both the Atlas and Hubbell studied only white speakers descended from several generations of NYC residents. There are no representatives of the three principal ethnic groups of the city--Jews, Italians or Negroes--in either study. [2] Sampling: Neither the Atlas nor Hubbell followed any systematic procedure. The language of the 25 Atlas informants was used in classifying them by age levels and cultural types, so the information on distribution by age level and class is partly redundant. Among the few lower middle class informants, Lowman included a brother and sister from the same family. Hubbell's 30 informants were apparently selected by convenience: 14 of them are male Columbia College students, and 5 are teachers in the city schools. Besides these, there are 4 upper middle class informants, 2 lower middle class, no working class, and 5 lower class representatives. Except for the students, and one 31-year-old elevator operator, all of the informants are over 55. Thus the main body of working class and lower middle class residents of New York City are unrepresented in either study. [3] Contexts: The Atlas records are entirely Context B, and primarily the stressed words from that context needed for lexical studies. Hubbell relies primarily on reading, Context C, but uses some records of Context B as well.

[2]See Edward D. Mysak and T. D. Hanley, "Vocal Aging," Geriatrics 14:652-656, 1959.

[3]For example, a woman in one of the exploratory interviews was born in 1914 in the state of Washington of Ukrainian parents. She moved to North Carolina in 1926, and then to New York City in 1927. The vowels of cot and caught, hock and hawk, Maud and Dodd were still identical; this phonemic merger had been preserved intact from her pre-adolescent pattern, despite 36 years on the Lower East Side. Her 13-year-old daughter showed no trace of her mother's speech pattern. A similar case is that of an old lady of Polish background, born near Scranton, Pennsylvania in 1903. She left Scranton when she was 16, and lived in Utica until 1945, when she came to New York City. Though she has not been in contact with her original dialect area for 44 years, she preserves a system with only one low-back phoneme. Her pronunciation of caught would be mistaken by New Yorkers for cot and vice-versa.

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[4]Throughout this chapter, the terms upper middle class, lower middle class, working class, and lower class will be used informally to designate four divisions of the social spectrum ranked in that order. For the discussion of some variables, these will be operationally defined as SEC 9, 6-8, 2-5, and 0-1; for others, they will be defined as SC 4, 3, 2, and 1. The relations between these two scales are set forth in the preceding chapter. In order to study distribution in apparent time, it seems best to treat each variable by the social parameters which show the sharpest stratification for it, in terms of the criteria used in Chapter VIII.

[5]We have already seen that the degree of shift from casual speech to more formal styles is less for the upper middle class than for other classes. This will be further demonstrated in this chapter. In Chapter XI it will be seen that the upper middle class has high linguistic security by the lexical test of eighteen disputed words. In the discussion of linguistic attitudes a similar result will appear.

[6]As shown in Figure 5 of this chapter, it is the 40-49 age level which is the principal focus of such hypercorrection. This age level probably extends from 40 to 55, since indications are that women in this class report their age as lower than their chronological age.

[7]There are many such examples in the history of the English language. The loss of (r) apparently began as a change from below, and the dropping of /h/ in the initial combination /hw/ in which and when seems to have proceeded upwards. The "broad a" in father, ask, France, dance, etc., seems to have originated as a vulgar pronunciation, according to John Walker in his Principles of English Pronunciation, first published in 1791. Many such examples may be found in H. C. Wyld, A History of Modern Colloquial English, (Oxford: Basil Blackwell, 1936).

[8]These include the supplementary informants for class 9, and two Negro speakers who must be eliminated for comparisons of working classes across ethnic lines. The four marginal speakers eliminated in Chapter VI will not appear in this chapter.

[9]The up-gliding diphthong may be pronounced by beginning with the final vowel of sofa, and adding to it the final vowel of city.

[10]Babbitt's records, summarized in Chapter XII, show /ʌy/ as the regular form in 1896. No earlier data on /ʌy/ in New York City is quoted by George Philip Krapp, in his review of the situation, in The English Language in America, (New York: Frederick Ungar, 1952), II, pp. 185-186. Krapp adds: "Historical evidence for the origin of this diphthong is lacking, and though statistics showing the extent of its use are not available, it is a matter of common observation in

New York that the pronunciation is widespread and is making its way from the lower popular level to the general popular level." There is no other evidence for this statement of Krapp, and we have no reason to believe that /ay/ is a late stage of change from below. In Map 25, of Kurath and McDavid, The Pronunciation of English in the Atlantic States, cited above, we see that /ay/ is perfectly regular in South Carolina and other parts of the Lower South studied: cultivated as well as uncultivated informants used this vowel. A scattering of occurrences is found elsewhere in the South, but the only other solid concentration is in New York City. See also A. F. Hubbell, "'Curl' and 'Coil' in New York City," American Speech XV: 373-376, 1940, for the situation just before World War II.

[11]Hereafter, the term ALS New York City informants will be used to indicate the 83 regular ALS informants and their children. Only the 12 adult children are included, unless the age level 8-19 is specifically mentioned. The term all New York City informants includes these respondents, plus the 25 respondents raised in New York City who were studied by means of the television interview. The two Negro speakers excluded from the study of class distribution are automatically included whenever ethnic groups are studied separately.

[12]For the meaning of the Atlas categories cultured, etc., see below in the section concerning (r).

[13]From Hans Kurath, Handbook of the Linguistic Geography of New England, (Providence: American Council of Learned Societies, 1939).

[14]Hubbell does an unusually thorough job of describing the principal forms used by his thirty informants for a long list of variables. However, the amounts of the variable used are reported so informally that it is unwise to attempt any comparisons with quantitative methods. Hubbell never gives any explanation of how he arrives at the few numerical estimates he makes, and our experience shows that unless every instance is accounted for, the report is likely to have no resemblance to actual usage.

[15]The pattern of stylistic variation is not consistently set for many children under fifteen, and it may fluctuate in an irregular fashion. For many in this age range, it is not possible to draw a distinction between casual and careful speech--yet the data recorded under Style B may show all the marks of uninhibited and spontaneous speech.

[16]All eight speakers in the sample who are in this age category are also in SC 1. Their (eh) values in Style A [or in Style B where no separate Style A was recorded] are as follows: 20, 25, 25, 26, 28, 30, 30, 40. No other age level shows this tight grouping around (eh)-25-30.

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[17]The Atlas records must be questioned as far as (eh) is concerned. Lowman did not record any speakers as using (eh) vowels as high as the vowel of where, scarce, etc. But Hubbell's re-assessment of the phonograph records of nine Atlas informants showed that six of them did use vowels of this height (eh-2), and for at least two it was the principal variant. On the other hand, it is sometimes difficult to determine in Hubbell's records if the phoneme /æə/ is meant to be the same height as the vowel of bat, or higher. The following regularities appear, however. The Eastern New England prestige form (eh-5) is used mainly by older upper class informants. Upper middle class informants use a range of variants from (eh-2) to (eh-4); for the older speakers, the main variant seems to be (eh-2); for the younger, the emphasis is shifting to (eh-3). Among the younger lower middle class informants, (eh-4) is becoming the principal variant, [in Style B]. The lower class shows the most tendency towards uncorrected (eh-2). This evidence supports the interpretation we have given above, with the exception that (eh-2) seems to have a more solid position among older lower class speakers from traditional New York background.

[18]The Atlas records show only variations in the height of (oh) and the presence or absence of an off-glide. Hubbell refers to the variant used by younger speakers as "retracted." We have described the extreme forms as raised, fronted, and over-rounded, with a distinct off-glide. More moderate forms, such as (oh-2), are raised and only slightly fronted, but never retracted, as British variants are. I would suspect that all three descriptions refer to similar sounds, since over-rounding can convey the impression of retraction to some listeners.

[19]Perhaps the most objective view of this development may be seen in Income, Education, and Unemployment in Neighborhoods, published by the Bureau of Labor Statistics, U. S. Department of Labor in January, 1963. The contrast between the income, educational status, and unemployment record of white, Negro and Puerto Rican is developed here on the basis of the 1960 Census.

[20]SEC is used here instead of SC, because it is the parents' present situation which determines the social position of the children, and the SEC is more closely related to the current status of the family.

[21]Five of the SEC-1 youth on this diagram are members of a single Irish-Italian family, and the evidence is therefore not as strong as if they were representatives of different families.

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[22]One of the most striking incidents which illustrate this tendency occurred when one of the members of the lower class Irish-Italian family was giving an account of a fight with Negroes in reply to the Danger of Death question. In his spontaneous speech, he began to use intonation, vocabulary, and syntax which sounded more like Negro speech than white. One of his brothers mentioned that he sounded like a Negro himself, and he was quite surprised, since he was not deliberately imitating Negro speech.

[23]From "The Tempered Wind," The Complete Works of O. Henry, [New York: Doubleday, Page, 1926], p. 259.

[24]The concepts of linguistic change from below, and linguistic change from above, are based upon linguistic processes, rather than social distinctions. The dimension of above vs. below is in this case parallel to the dimension of stylistic variation, rather than social variation. A change from above is exerted by overt pressure upon formal styles of speech, with results that are sporadic or unsystematic from a linguistic point of view. A change from below occurs below the level of conscious attention, affecting all members of a word class, and parallel elements in the phonological system. Because the upper middle class is usually the first to react to social pressure from above, and some members of this class are instrumental in promoting such social pressure, such linguistic change is sometimes thought of as proceeding from the top of the social scale, downwards. This is not necessarily the case: sometimes the lower middle class leads in such correction, as in the use of spelling pronunciations. Although change from below gradually affects all classes, it appears to originate with some particular group; this group is most often a lower ranking social group, though not necessarily. A gradual change among upper middle class speakers may go unnoticed by society as a whole; if it does become the focus of social attention, the prestige of the originating class may transform this type of change into the equivalent of change from above.

CHAPTER X

OTHER VARIABLES OF THE VOWEL SYSTEM

In the survey of the Lower East Side, a great many other linguistic variables were studied in addition to the five main phonological variables. The stylistic and social differentiation of morphological variants, of syntactic forms, and many consonantal variants, were analyzed in the speech of the ALS informants.[1] The distribution of many of these variables confirmed the linear status of the set of stylistic contexts, and the ten-point scale of socio-economic classes. The distribution patterns of non-standard grammatical forms, such as double negatives, and person-number disagreements, showed a regular structure of stratification by socio-economic class which could not be duplicated by any single social parameter.[2] The morphological variants of the suffix -ing showed a regular and fine structure of stylistic and social stratification. In addition, the distribution of the -ing variable in apparent time provided a case of stigmatization without linguistic change which confirmed in detail the abstract analysis of Case I-A in Chapter IX.

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The Mid-central vowel in her

Chapter IX has presented data on one variable which is closely associated with (r): the vowel of bird and work. This variable occurs in all contexts where historical (r) followed a mid-central vowel and was followed by a consonant. We will now consider the parallel case of historical final (r) preceded by a mid-central vowel: that is, words of the type her, were, occur, stir. The most important of these words is her since it occurs more frequently than any of the others except were, and the latter is usually unstressed.

The most common pronunciation of this class of words among the ALS informants is the same as that used by most American speakers. In stressed position, the mid-central constricted form [hɝ] is used, and in unstressed position, [hɚ]. These are the same vowels as the forms most commonly used in bird and work, and similar to the forms used in r-pronouncing dialects. However, there are many speakers who use an r-less form in some or all instances of her, were, etc.

The r-less form is a mid-central vowel, which varies in position from [ɘ], slightly higher than the final vowel of sofa, to [ʌ], the vowel of tub.[3] It may be short, or half-long; the longer forms of [ʌ] are sometimes monophthongs, and sometimes show a centering glide, [ʌ^{ə}]. The forms which differ from the common standard [hɝ] most strikingly are those which begin with [ʌ], and in the following discussion, we will therefore concentrate upon the incidence of [ʌ] in this word class. Since the great majority of these forms were actually found

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in the word her, we will refer to the incidence of [hʌ], and the inclusion of a few [wʌ] and [əhʌ] forms will be understood, as well as such slight variants as [hʌˈˈ] and [hʌᵊ].

In casual speech, we do not record stressed forms of the her class variable as often as the variable of bird and work. Only 23 of the 80 white ALS New York City informants used the word her in casual speech. Eleven of these used one or more instances of [ʌ], a total of 26 occurrences in all. The situation in careful speech is much the same. However, the standard texts contain a number of occurrences of stressed her, and we therefore have in this style information on 68 out of the 80 white adult ALS New York City informants, and 38 young people: a total of 106 in all. Table 1 shows the number of those who used one or more instances of [hʌ] (as the numerator of the fraction), and the total number of cases who used the word class of her (as the denominator). Three age levels are shown and five SEC levels, the same divisions of the scale that were used for the stratification of (r).

TABLE 1

WHITE ALS INFORMANTS USING [hʌ] IN STYLE C BY AGE AND SEC

	SEC					
Age	0-1	2-3	4-5	6-8	9	Total
8-19	2/5	5/11	1/9	3/8	0/5	11/38
20-39	1/4	1/3	0/4	3/10	1/4	6/25
40-	3/7	7/10	1/11	4/10	1/7	16/45
	6/16	13/24	2/24	10/28	2/16	33/106

t-4 This table can be presented in somewhat simpler form showing three social groups, which appear in the following percentages of [hʌ]:

Age	SEC 0-3	SEC 4-8	SEC 9
8-19	43	24	00
20-39	30	22	25
40-	59	24	14

This presentation shows some tendency for a reduction in the use of [hʌ] with decreasing age and increasing social rank, but the trend is not regular. The social significance of [hʌ] is indicated a little more clearly in Table 2 which shows the ratio of total number of occurrences of [hʌ] to the total number of informants who used some members of the word class of her.

TABLE 2

INSTANCES OF [hʌ] PER INFORMANT FOR WHITE ALS SPEAKERS BY AGE AND SEC IN STYLE C

	SEC		
Age	0-3	4-8	9
8-19	.69	.24	.00
20-39	.43	.57	.20
40-	1.59	.29	.43

The extreme figures for this table are located at opposite corners. The older, lower class informants use by far the most [hʌ] in this presentation, and the younger class 9 informants use none at all. However, the usage of the other sub-groups seems to fluctuate, and it is clear that if social

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pressure is being exerted against [hʌ], it is only just beginning. The younger group of upper middle class speakers seem to indicate such a trend.

In the records of previous surveys, [hʌ] seems to predominate. Babbitt's early observations of 1896 seem to indicate that an up-gliding form was used in the her class, but there are no relics of such a pronunciation, and both Hubbell and Frank show [hʌ] as the principal form.

Among Negro speakers, the vowel of [hʌ] is used only by two upper middle class Negro speakers. Most Negro informants favor the mid-central vowel [ə] without constriction in stressed forms, and this is common among Negroes with Northern as well as Southern background.

The social distribution of (ay) and (aw)

There are two speech variables which will have considerable importance for the analysis of the over-all structure of New York City English, and the changes that are taking place in that structure. These two variables are the positions of the first elements of the diphthong /ay/ as in my, nine, ride, etc., and the diphthong /aw/ as in mouth, loud, etc. The variations do not follow a detailed pattern of stylistic variation as the five main phonological variables do. The values for any given individual hover close to a central norm, and the fluctuations that do occur are not systematic by styles. However, these variables do follow a very regular pattern of social variation, and as such may be referred to as interpersonal as

opposed to intrapersonal.

The axis of phonological variation is the degree of differentiation of the first and second elements of the diphthongs, which we may call nucleus-glide differentiation. For the front-gliding diphthong /ay/, this occurs as positions of the first element which are progressively further back in the vowel quadrangle; for the back-gliding diphthong /aw/, this occurs as positions of the first element which are progressively further front. Figure 1 is a representation of the vowel quadrangle as conventionally conceived by phoneticians: the height of the diagram corresponds roughly to the height of the tongue in the articulation of the vowels, and the left or right dimension corresponds to the front or back position of the highest point of the tongue. The point marked zero on this diagram corresponds to the position [a˧], the most common position of the first elements of both /ay/ and /aw/ in the surrounding regions of New Jersey, New York State, and Connecticut.[4] The successive numbers to the left indicate the index for (aw), and the numbers to the right, the index for (ay). The positions of various simple vowels that have been discussed previously are indicated on the diagram with identifying words opposite the index numbers. To identify (ay-1) in guy, for example, one would pronounce the word got with the vowel used most commonly in New York City [and most parts of the northeastern United States] symbolized [ɑ], but instead of pronouncing the /t/, use an up-gliding /i/ instead.

For the extreme values of both variables, the diphthong tends to show a slower up-glide with a more distinct second

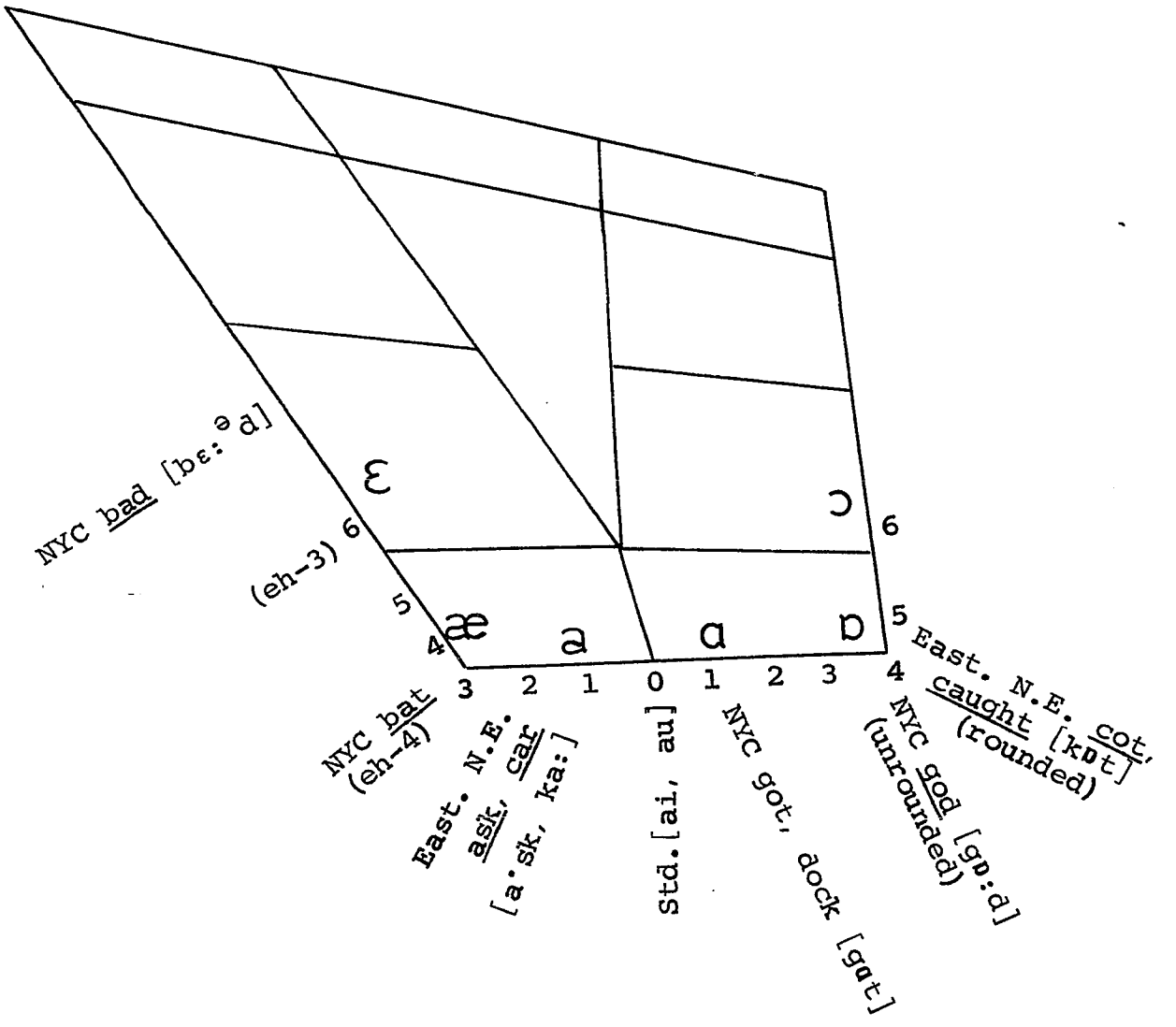

Figure 1

Phonetic scale for nucleus-glide differentiation of (ay) and (aw)

X-8 element, and the glide usually ends at a higher point. The difference might be symbolized as [gaᵊɪ̯], fast, as against [gɒ:i], slow.[5]

The same tendencies towards nucleus-glide differentiation can be noted before all types of consonants, but the effect is more extreme and more easy to observe in final position and before voiced consonants and voiceless fricatives. Thus the values of the variables which were assigned to each informant were the most common variants used by him in words such as my, why, surprise, ride, side, and mouth, loud, etc. Conversely, the pronunciation of light, right, about, etc., was not used for this variable. A series of values was assigned to successive utterances until it became plain what the central tendency for that speaker was.

The index for a group of speakers is the mean value of the individual indexes multiplied by ten. Thus five speakers with (ay) values of 0, 0, 1, 1, 2 would yield an index of (ay)-08.

The sample population which will be used for the study of (ay) and (aw) includes all New York informants except Negroes. The Negro group follows an entirely different pattern with fronted variants of (ay) and reduction of the up-glide.[6] Since there are no stylistic considerations in the assignment of (ay) and (aw) values, the data from television interviews can be considered on a par with the data from all other interviews.

Table 3 gives the values of (ay) and (aw) for 100 white adult New York informants by socio-economic class.

TABLE 3

AVERAGE (ay) AND (aw) INDEXES BY SEC
FOR ALL ADULT WHITE NYC INFORMANTS

SEC	(ay)	(aw)	N
0	06	03	7
1	05	01	10
2	06	03	9
3	16	07	14
4	17	06	13
5	17	10	7
6	17	08	12
7-8	11	13	12
9	18	03	16
			100

Table 3 shows that there are only two major groups in the scale of (ay) values: 0-2 and 3-9. Class 9 is slightly higher in (aw) value than the rest. As far as (aw) is concerned, we have three, or perhaps four divisions. Classes 0-2 show a low (aw) index; classes 3-6 are higher; 7-8 shows the maximum value; and class 9 is low, at a level with the lower class group.

In the use of (ay) and (aw), Jews and Italians are not very different from each other, as shown in Table 4.

TABLE 4

AVERAGE (ay) AND (aw) VALUES FOR ALL
ADULT NYC JEWS AND ITALIANS

	(ay)	(aw)	N
Jews	13	05	66
Italians	14	06	26

The Jews seem to be somewhat lower in their use of both variables, especially (aw), but the difference is small compared to the class differentials shown in Table 3. This situation contrasts sharply with the case of (eh) and (oh), where the ethnic factors were larger than the class differentials.

There is a very great difference between men and women in the use of (ay) and (aw), as shown in Table 5.

TABLE 5

AVERAGE (ay) and (aw) VALUES FOR ALL ADULT WHITE NYC INFORMANTS BY SEX

	(ay)	(aw)	N
Men	08	02	43
Women	18	08	57

It has been noted that the upper middle class shows a different distribution for men and women than the other classes. It is also true that the usage for (ay) and (aw) is quite different for the upper middle class. If we consider only classes 0-8, we find that the men have an (ay) index of only 05, as low as the lowest value recorded for an individual social class in Table 3. In the case of (eh) and (oh), women showed more extreme values of those variables; in the case of (ay) and (aw), the differences are even greater.

From the foregoing discussion, we would assume that (ay) and (aw) will follow the model for Case III: change from below. No evidence has been seen for overt social pressure from above; in the discussions of linguistic attitudes which concluded our interviews, it appeared that only at the college

level are extreme values of (ay) and (aw) noted and stigmatized. Since Jewish-Italian differences are not pronounced, it is most likely that a class differential in apparent time will appear, which gives the impetus of social identification to these developments. For the investigation of these variables in apparent time, we will use the SEC index. The values for the youth group will be particularly crucial in this development, and we have already noted that it is simpler to assign the young people positions by their parents' SEC level than their own occupation and education. [If the children's education has already surpassed that of their parents, their SEC status is adjusted upward by that degree of change.]

Table 6 shows the distribution of (ay) and (aw) values for eight age levels and four class groups.

TABLE 6

AVERAGE (ay) AND (aw) VALUES FOR ALL WHITE NYC INFORMANTS BY SEC AND AGE

	(ay) SEC				(aw) SEC				N:
Age	0-2	3-5	6-8	9	0-2	3-5	6-8	9	
8-15	9	25	28	--	13	20	22	-	8 4 6 -
16-19	5	20	15	12	0	20	10	8	6 3 4 4
20-39	5	17	23	14	0	5	8	4	2 17 10 7
40-44	10	22	25	15	3	11	11	0	4 5 4 2
45-49	7	16	10	13	7	6	8	0	6 9 4 3
50-59	7	10	10	15	3	7	5	5	3 6 4 2
60-69	4	--	--	--	1	--	--	-	7
70-	0	--	--	--	0	--	--	-	4

The pattern here seems to be that of Case III-A--the early stages of a linguistic change from below. There is a definite progression towards higher values of both indexes. The oldest speakers show the lowest values: this is particularly notable for the four oldest lower class speakers. On the whole, the lower class shows the smallest rise in (ay) and (aw) values until the level of the youngest children is reached. On the other hand, both the working class and lower middle class show a rise for ages 50 through 40, then a slight fall for the 39-20 group, and the highest values of all for the younger children. The two variables generally follow the same outline, though (aw) is at a lower level than (ay). This relation is not merely an artifact of the scale, for the zero readings of (aw) would indicate no change from the original position on any scale.

The alternation of the pattern seems to indicate a relation of alternate half-generations, such as the following:

Generation IIB [5-19]

Generation IIA [20-34]

Generation IB [35-49]

Generation IA [50-64]

The children of Generation IA are the adult children of our sample, and the children of Generation IB are the youth of our sample. The suggestion of the feedback system, brought forward at the end of the last chapter, is still present in this possibility. If we re-arrange the age levels of Table 6 according to this pattern, we obtain the arrays of Table 7.

TABLE 7

AVERAGE (ay) AND (aw) VALUES FOR ALL WHITE NYC INFORMANTS BY HALF-GENERATIONS

	(ay)				(aw)			
Generation	0-2	3-5	6-8	9	0-2	3-5	6-8	9
II-B	7	23	22	12	8	20	17	8
II-A	5	18	24	10	-	7	10	4
I-B	8	17	18	20	4	7	8	1
I-A	5	10	10	15	2	7	5	5
0	0				0			

The regularity shown here is close to the paradigm for Case III-A. A suggestion of a reverse pattern for (ay) is seen in the trend of the upper middle class, particularly when we compare alternate half-generations. The relations of the three lower ranking groups in alternate half-generations show a fairly general rise of (ay) and (aw). We can interpret this table as evidence for a change from below which began in the two center classes, and spread outwards. It should be emphasized that this type of systematic change does not lend itself to the clear and decisive confirmation which we saw for Cases I and II, and all inferences may be considered quite tentative except the existence of change from below itself. We will resume the discussion of (ay) and (aw) in Chapter XII, the discussion of the structure of the New York City vowel system.

The records of previous studies are consistent with the view of gradual change as presented above. Hubbell's 30 informants are sharply divided into two groups, as we have seen: college students, and informants over 50. Of the older infor-

mants, only two showed traces of (ay) differentiation; both from working class backgrounds, with only elementary school education. Of the 14 younger informants, only four showed no backing of (ay), and these were from upper middle class families; three of the four who showed the most extreme forms of backed (ay) were students from lower middle class families, and the fourth was a lower class man of 31. As far as (aw) is concerned, the situation is even more regular. Two older informants showed traces of fronting, but most showed backed forms of (aw), that is [ɑʊ] alternating with [aʊ]. All of the college students showed some fronting of (aw).

The records of the Linguistic Atlas show that the backed variant of (ay) was used among uneducated and intermediate informants in New York City in the 1930's. The phonetic representation of this variant in the Atlas notation is [ɑɪ] or [ɑˈɪ], which would correspond to our (ay-6, 7). There are fifteen out of 116 occurrences of this variant among uneducated speakers of all ages, and eight out of 45 for the intermediate informants [Type II]. The cultivated informants did not use any of these (ay) forms.[7]

The Atlas evidence points to the beginning of a change from below which has now, in 1963, made substantial progress. It was noted above that the (aw) shift seems to have begun later than the movement of (ay). The Atlas does not show any slightly fronted forms for (aw), although a number of extreme types [æʊ] were recorded. We do not find such forms in our own records except for the very youngest ALS informants, and

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it is likely that the forms we have observed are the product of a separate evolution that is totally unrelated to the LA [æʊ]. The latter was the typical recessive form used by aged, rural and old-fashioned informants throughout the northern United States, and was nòt probably transmitted to succeeding generations from these speakers.[8]

Babbitt's early observations of 1896 indicate some variation of (ay) in which the low central position of the first element is used, a centralized form, and also backed forms. For (aw), a position which is the opposite of the present tendency is indicated:

> au has much variation in the first component, but in no case shows "fronting" of the vowel [to æ or a mixed vowel near æ] as in the South. What is heard is generally a regular ɑ or something approaching ɒ.

With this view of [ai] and [au], we have completed the survey of the differentiation of the linguistic variables in speech. The second part of the inquiry will be undertaken in Chapter XI, as we investigate the subjective evaluation of the variables by our informants. In the studies of differentiation, we have been led inescapably to conclusions about social significance. However, it is one thing to draw inferences about social significance from circumstantial evidence, and another to determine this directly from the native speakers themselves. The following chapter will describe a subjective reaction test which was designed to solve the many technical and theoretical problems of determining evaluative reactions by a reliable and quantitative measure. The results of this test will confirm

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many of the indications of linguistic change which we have already found, and display patterns which are even more regular than those of objective performance.

NOTES TO CHAPTER X

[1]Some of the other phonological variants studied are the loss of contrast of /i/ and /e/ before nasals as in pin vs. pen; contrast between /iw/ and /uw/ as in dew and do; contrast between [n] and [ng] as in singer and finger; contrast of /i/ and /e/ before intervocalic /r/ as in mirror and nearer; contrast of /eh/ and /e/ before intervocalic /r/ as in fairy and ferry; contrast of /hw/ and /w/ initially, as in which and witch; contrast of final [dθ] and [θ] as in width and with. The case of beer vs. bear and sure vs. shore will be taken up in Chapter XII. The loss of final /l/ as in school was studied; the substitution of glottal stop for /t/ as in total and bottle; the release of final /t/ and the explosion of initial /t/; the simplification of consonant clusters; the occurrence of word-final, intervocalic /r/; the occurrence of [ðə] and [ə] instead of [ðiy] and [ən] before words beginning with vowels. A great many morphological forms serve as socially significant differentiators: among the most important are the forms of ask, isn't, and didn't.

[2]The SC scale was not quite as sensitive as the SEC scale to differences in the peak of concentration of non-standard grammatical forms of different types, although it showed regular stratification for all.

[3]The vowel of tub is also occasionally heard before /r/, as [hʌr].

[4]See Kurath and McDavid, op. cit., Maps 26 and 28.

[5]When the extreme forms are heard in isolation, many American speakers think of them as "Cockney." The phonological shift which we are observing here follows the same route as the Cockney vowels for eye and ow, my and now, and in some cases, are no less extreme.

[6]This is of course a continuation of Southern patterns of speech, and is strongest among those Negro speakers who have the closest connection with the South.

[7]The cultivated informants did use a certain amount of another variant: a slightly centralized diphthong for /ai/. This feature was found in the other social levels as well--among the same speakers who used the backed variant.

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8. "In New England [æʊ], [ɛʊ] are rare except in some rural northern areas; in parts of New York State and the northern counties of Pennsylvania they are somewhat more common. There, as in New England, this type of pronunciation is regarded as rustic and old-fashioned and is being replaced by [aʊ]." Kurath and McDavid, op. cit., page 110.

PART III

SOCIAL EVALUATION

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CHAPTER XI

SUBJECTIVE EVALUATION OF THE VARIABLES

We have completed our survey of social differentiation of five phonological variables in New York City, and we will now turn to the more obscure and difficult question of the subjective evaluation of the variables by our informants. We have seen a pattern of social variation and a pattern of stylistic variation which fit together closely: in general, a variant that is used by most New Yorkers in formal styles is also the variant that is used most often in all styles by speakers who are ranked higher on an objective socio-economic scale. The connection between these two axes of variation was further illustrated by the close correlation between real deviations from stylistic variation and real deviations from social variation. The combination of both types of variation into a single structure suggests to us that most New Yorkers think or feel that particular variants are better, or more correct, or are endowed with superior status. Our task in this chapter is to investigate these subjective reactions among the native English speakers of the Lower East Side.

Reactions to phonological variables are inarticulate responses, below the level of conscious awareness. They occur as a part of an over-all reaction to many variables. There is no vocabulary of socially meaningful terms with which our

informants can evaluate speech for us. We therefore need to proceed not by direct questions, but by eliciting some kind of evaluative behavior that is sensitive enough to reflect the influence of many variables, and is subject to quantitative measurement.

Direct questions are almost useless. Some informants will be ready and willing to answer questions about a certain variable; a few will even volunteer their opinions on this subject. But the great majority of respondents show no conscious awareness of the variables we have been studying. In the discussions of linguistic attitudes which took place at the end of our interviews, many respondents showed strong opinions about New York City speech in general, but only a few were able to mention specific words, sounds or phrases which characterized the language of the city or of groups within it. Direct questions will tap the reactions of only a handful of exceptionally articulate middle class speakers.

The type of evaluative behavior which we wish to measure is more systematic, more completely internalized than any reply we might elicit by the overt discussion of speech. We are searching for the evaluative norms which reflect the complex and regular structures seen in Part II of this study. In order to measure the internal evaluative processes of our respondents, we must construct a chain of inference which leads to a quantitative measure of overt behavior. Should the results of this construction coincide with the structures described by the methods of Part II, the confirmation will be

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even more striking than the convergence of the department store survey and the Lower East Side survey. In that case, we approached objective performance by two different survey methods; here we approach the structure of the speech community on two different levels of behavior.

The chief problems which we must solve are three: [1] to isolate the subjective reactions to particular values of a single variable; [2] to reduce these reactions to a quantitative measure; [3] to find the over-all structure reflected in the pattern of the resulting measurements.

Our first aim in designing the subjective reaction test is to expose each informant to utterances with contrasting values of the variable in which all other variables would be held constant. This might be done with synthetic speech, or with practised utterances of the interviewer. But we would then have to prove that the phonetic detail of the variant was equivalent to that of the natural variants, and also, that the artificiality of the utterance did not itself introduce a new variable that disturbed subjective reactions.[1]

It seems preferable therefore to approach the problem by using natural utterances of native speakers to elicit reactions. In casting the net a little wider, we will inevitably draw in some extraneous variables; but we will be certain of the main object--those values of the variables which are in fact used by Lower East Side speakers.

The initial material for the subjective reaction test [hereafter abbreviated SR test] was forty versions of the standard reading, "When I was nine or ten . . ." This reading

XI-4 is given in its entirety in Appendix A, with the relevant occurrences of the variables underlined.

The five variables are concentrated in successive paragraphs. As noted in our earlier description of this passage, the first paragraph contains none of the variables; the second contains (oh); the third, (eh); the fourth (r); and the fifth, (th) and (dh).

It would be possible to obtain reactions from a respondent by playing the reading a paragraph at a time, and testing his reactions to the speaker after each paragraph. We could then see how the listener's evaluation of the speaker rose or fell as the listener reacted to the speaker's treatment of separate variables. However, there would then be no way to estimate how much of the listener's reaction to the values of (oh) was carried over to his evaluation of the (eh) paragraph, and so on through the list. If, on the other hand, each variable was treated by a different speaker, we would not know how much of the listener's reaction was due to the speaker's voice quality and treatment of other variables.

To solve these problems, it was decided to select one sentence from each paragraph for five different speakers, and play the sentences from each paragraph with the speakers in mixed order. As the listener reacted to a particular sentence, he would not be able to know exactly how he had rated the same speaker in a previous utterance. In analyzing the results, however, the comparison between utterances of the same speaker's use of different variables would be retained.

The five informants selected as speakers for the SR test were all women whose voices were recorded in the exploratory interviews. If both men and women had been used, it would not have been difficult for the listener to identify a particular voice as it recurred.

The speakers were selected not for their social characteristics, but for their treatment of the variables.[2] It was necessary to obtain sentences with consistently high values of each variable, and others with consistently low values of each. In addition, some sentences with inconsistent use of a variable were contrasted with sentences in which the same speaker used the variable consistently.

Twenty-two sentences from the five speakers were copied onto a test tape for the SR test in its final version. On the tape, the number of the sentence is first given in my own voice, and then two copies of the test sentence are heard twice in succession, separated by a short pause. The first five sentences, from the zero paragraph, allowed the listener to hear each of the five speakers once. The order and structure of the succeeding test sentences will be discussed under the individual variables.

The tape was played to the subjects after they themselves had completed all of the reading under Context C, including a reading of "When I was nine or ten . . ."[3] The respondents were told that this test was the most important part of the interview: since we had already learned how they themselves used the English language, we then wanted to know how they felt about the way other New Yorkers used it.

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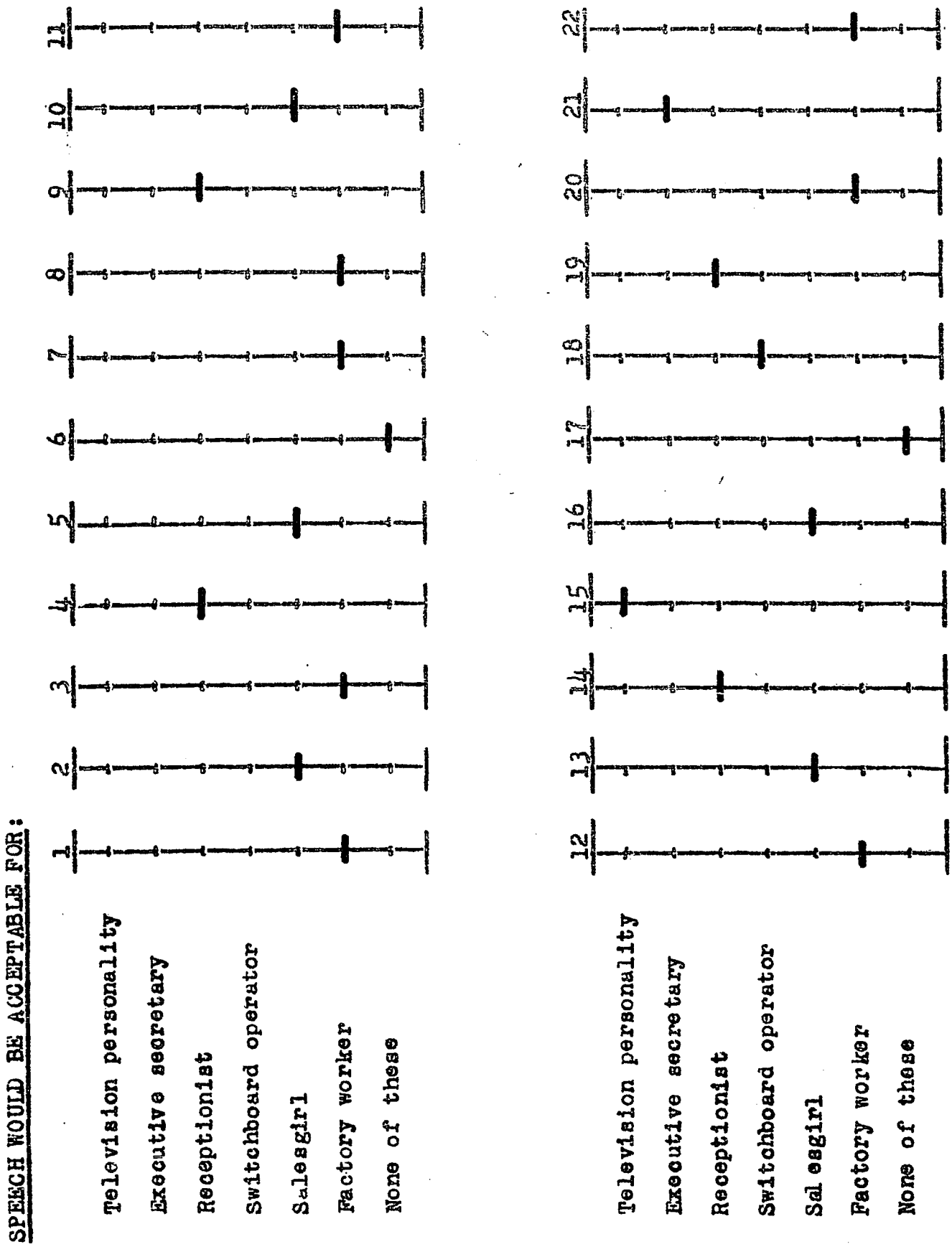
The respondent was asked to imagine himself in the position of a personnel manager, interviewing people for a large corporation. He was given the form shown as Figure 1 on the following page, on which to rate the speakers--for their speech only. On the left of Figure 1 is an index scale of occupational suitability of speech: for each sentence, the respondent was asked to indicate his reactions by a horizontal line across the vertical scale, marking the first scale for the first sentence, the second for the second, and so on. The marks might be made on a line, or in between lines if he felt there was an in-between case. A mark across the scale at a certain job meant that the person speaking could hold that job, as far as her speech was concerned, and all those jobs listed below, but none of the jobs above. For example, the first mark shown on Figure 1 indicates that the speakers of the first sentence could not hold any job higher than that of a factory worker because of her speech. A mark at "None of these" meant that the speech was so poor that the person could not even hold a factory job.[4] The marks shown on Figure 1 represent the median ratings for middle class respondents [SEC classes 6-9] from 20 to 39 years old.

Most of the respondents agreed with the hierarchy expressed by the scale: that each job listed required better speech than the ones below, and did not require as good speech as the ones above. However, in case respondents had some reservations on particular items, it was explained to everyone that the index was to be thought of as a continuous scale running from perfect speech at the top to terrible speech at the

Figure 1

Subjective evaluation form



bottom, with all degrees in between. It was also explained that the listener was not trying to judge what job the speaker actually held: that some factory workers, for example, spoke well enough to hold any of the jobs shown. The respondent was to judge what was the highest job on the scale which the speaker could hold, speaking as she did. The complete instructions to the respondents are given in the questionnaire form in Appendix A.[5]

It should be evident that this subjective reaction test does not measure all subjective reactions. The scale of occupational suitability is plainly designed in accordance with the requirements of the socio-economic hierarchy, and reflects values which are best exemplified by speakers with middle class orientation. It will be shown that almost all members of society share these values, to a greater or lesser extent: one of the recurrent themes of this study is that the speech community as a whole is unified by a common set of norms of this type. However, there are other values which are conferred on speech forms, that are not represented here. The particular reactions which are measured here are those which respond to pressure from above--reactions to prestige norms and stigmatized language features. Those subjective reactions which accompany the more subtle and obscure changes from below are not measured here. It may be possible, in the future, to devise tests for these reactions as well--tests for emotional response on the basis of group identification--but these are beyond the goals that are set in the present study.

The results which we will present here are based on SR tests completed by 122 native New York informants: 85 adults and 49 children of informants under 20 years old. The distribution of these informants by age and socio-economic class, sex and ethnic group, follows that of the sample population displayed in Figures 1 and 2 of Chapter IX. The television interview sample is of course not included. Of the original 83 New York ALS informants, only seven did not take the SR test; seven out-of-town informants did not take the test, and two adult children of ALS informants who were included in the sample of Chapter IX.

In addition to these losses, which were much smaller than originally expected, there were three cases of persons who can best be described as "dialect deaf." With the best will in the world, these respondents could not hear any significant difference between the speakers on the test tape: as far as they were concerned, the test sentences were all perfect, and were marked at the top of the scale, since they did not contain any words which were obviously mispronounced, or any grammatical mistakes. For these three subjects, the variables which we have been studying in this work did not exist. One of these respondents was an old Jewish lady, SEC 0; another was a Negro boy 16 years old, SEC 2; a third was the husband of an informant, an Italian man of 60, born in Brooklyn, SEC 3. A few other informants showed tendencies in this direction, but the great majority heard clear-cut differences between the test sentences, and showed a pattern of ratings which followed well-defined norms.

The Zero pattern

We will consider first the patterns formed by the ratings given to the first five sentences, taken from the zero paragraph of the standard reading. The ratings in this section will be used as reference points for any later changes in the ratings given to the same speaker as she reads a sentence containing many instances of a particular variable. In this way, the effect of reading style, voice quality, recording quality, preciseness of articulation, and intonation patterns, will be effectively cancelled out, as these do not vary significantly from one sentence of the standard reading to another.

In the discussion to follow, we will not be concerned with the absolute values of the ratings. We will be interested in patterns of relationships between ratings rather than absolute values, just as in most of the previous analyses in this study.

There is general agreement on the relative rankings of the five speakers as they are first heard. We may call this set of relations the zero pattern. The five speakers, identified by the position of the sentence in which they are heard, fall into three levels according to the average rankings given them by all respondents:

Level 1			Speaker 4	
Level 2		Speaker 2		Speaker 5
Level 3	Speaker 1		Speaker 3	

:I-11 Although the zero pattern is quite constant, there is a regular progression in the absolute differences of rankings assigned by socio-economic class groups. Table 1 shows the average ratings for the three class groups for the zero section.

TABLE 1

AVERAGE RATINGS FOR THE ZERO SECTION OF THE SR TEST BY SOCIO-ECONOMIC CLASS

	Speaker				
SEC	1	2	3	4	5
6-9	2.6	3.3	2.7	4.8	3.2
3-5	3.0	3.8	3.5	4.9	3.9
0-2	4.0	4.6	4.3	5.0	3.8

The zero pattern is not a regular first-order structure by itself, for the rating of the speakers does not match their socio-economic ranking very closely. However, the recurrent zero pattern forms a second-order structure with the linear set of class groups. Only one deviation appears--the lower class rating of Speaker 5. In this structure the zero pattern becomes gradually shallower. The absolute ratings of Speaker 4 are almost the same, but the differences between her and the others are less for the working class than the middle class, and less still for the lower class. We may say that the middle class stigmatizes the speech of all but the most cultured speaker, and the other classes do not penalize these speakers to the same extent. Despite such differences, the zero pattern seems to describe the norms of all classes.

I-12 Subjective reactions to (oh)

The structure of the (oh) section of the SR test is shown in Figure 2. Test sentences 6 through 9 were taken from the (oh) paragraph of the standard reading; they were read by the same voices as sentences 1, 2, 5, and 4, respectively. The sentence was the same for all four speakers: "We always had chocolate milk and coffee cake around four in the afternoon."

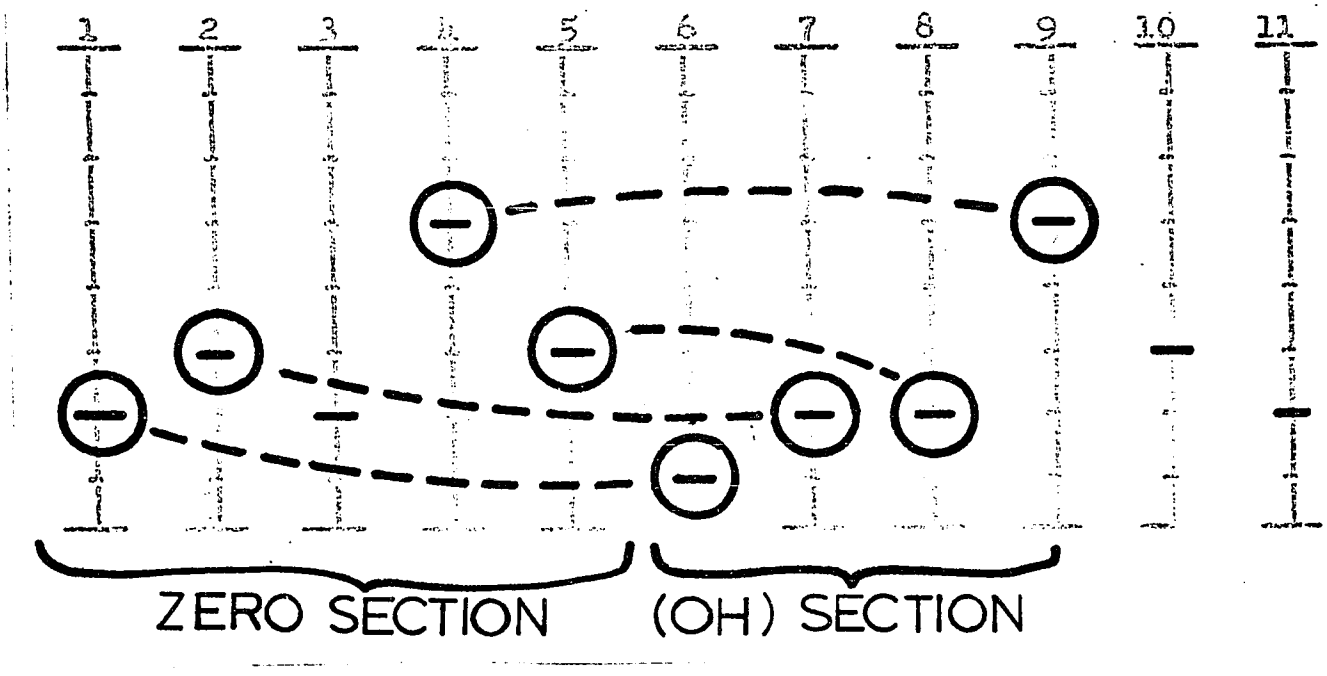


Figure 2
Structure of subjective evaluation form for (oh)

The relevant values of the variables are listed on the following page. The speakers will be identified hereafter as 1, 2, 3, 4, 5, according to their position in the zero section.

Sentence	Speaker	always	chocolate	coffee	afternoon
6	1	(oh-1)	(oh-1)	(oh-2)	(eh-4)
7	2	(oh-2)	(oh-1)	(oh-1)	(eh-4)
8	5	(oh-2)	(oh-2)	(oh-1)	(eh-2)
9	4	(oh-2)	(oh-3)	(0h-5)	(eh-4)

The occurrence of (eh-4) in afternoon is not heavily stressed for any speaker; the corrected (eh-4) of Speakers 1 and 2 is not prominent, and did not attract any overt notice. However, the (eh-2) in afternoon of Speaker 5 in Sentence 8 was remarked by some listeners, although it receives only secondary stress. We will therefore find in Sentence 8 some effect of (eh-2) as well as (oh); the comparison of Sentence 8 with Sentence 11 in the next section will resolve any ambiguity.

Finally, it may be noted that Speaker 4 does not show a consistent (oh) value, proceeding from (oh-2) to (oh-3) and (oh-5). This inconsistency is normal, since we did not find any speakers in the exploratory interviews or the survey itself who used a lowered version of (oh) consistently.

The results for each sentence may be analyzed first by listing the total number of ratings which were higher than the corresponding sentence in the zero section, those that were the same, and those that were lower. Only adults are considered here.

Sentence	Relation to Zero Section Equivalent		
	Higher	Equal	Lower
6	18	34	30
7	15	19	50
8	18	16	50
9	22	28	34

The over-all results show that the pronunciations of (oh-1) are associated with a pronounced fall in the ratings. At first glance it seems as if Sentence 7 received the brunt of this effect. However, Speaker 1, who now appears in Sentence 6, was rated quite low to begin with. We might consider that there was more room for a listener to raise his rating of Sentence 6, and less room to lower it. Yet the number who showed higher ratings for Sentence 6 was almost as small as Sentence 7. Those who rated Sentence 6 at the same low level as Sentence 1 were not reacting in a manner inconsistent with the stigmatization of (oh-1).

Following this line of reasoning, we can say that a consistent negative reaction to high (oh) vowels such as (oh-1) will produce a consistent response to Sentences 6, 7, and 8 in which these ratings will be equal or lower than Sentences 1, 2, and 5 respectively. A response to all of the sentences examined which is equal or lower than the response to the corresponding sentence in the zero section will be termed <u>(oh)-negative</u>. The test described for an (oh)-negative response will be termed a <u>three-choice test</u>. Table 2 shows the percentage of (oh)-negative responses for all nine SEC classes by the three-choice test.

TABLE 2

PERCENTAGES OF (oh)-NEGATIVE RESPONSE BY CLASS[7]

SEC								
0	1	2	3	4	5	6	7-8	9
37	20	13	59	56	80	100	73	58

This table shows a close parallel to Figure 20 of Chapter VII, a style stratification figure for (oh). It shows that classes 0-2 display no separation of styles for (oh), indicating by both stylistic and social deviation from the overall structure that (oh) is not a variable for this class group. Similarly, we see in Table 2 that the percentages of (oh)-negative response for classes 0-2 are much lower than for other classes. In Figure 20 of Chapter VII, classes 3-4 show the beginning of high (oh) values in casual speech, and a separation of Style A from more careful styles. Styles B, C, and D, however, do not show stratification. Similarly, in Table 2, classes 3 and 4 show intermediate values of (oh)-negative response.

In Figure 20, classes 5 through 8 show high values of (oh) in casual speech, and rapidly increasing values of (oh) in more formal styles, with regular stratification of styles. In Table 2, these classes show the maximum (oh)-negative response. Finally, class 9 in Figure 20 shows only moderate (oh) values and in Style D does not show the very open, hypercorrect vowels used by classes 6-8. In Table 2, class 9 also shows moderate (oh)-negative response, lower than the response of classes 6-8.

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These detailed parallels between subjective reactions and objective performance indicate that the (oh) section of the SR test has indeed isolated subjective reactions to that particular variable.

We may now consider the distribution of subjective reactions to (oh) in apparent time. Table 3 shows the distribution of (oh) response for four class groups and three age levels.

TABLE 3

PERCENTAGE OF (oh)-NEGATIVE RESPONSE BY SOCIAL CLASS AND AGE

	Social Class				
Age	1	2	3	4	
20-39	(50)	67	100	71	N:
40-59	43	45	67	67	1 15 7 7
60-	29				16 9 15 6 7

Table 8 of Chapter IX shows that the lowest values of the variable, corresponding to the maximum height of (oh) vowels, are shown by the younger group of SC-3 speakers. Correspondingly, we find that maximum sensitivity to (oh)--the greatest percentage of (oh)-negative response--is shown by this group. In the relations of the other class and age levels, Table 8 of Chapter IX matches Table 3 above. The upper middle class showed no change in Table 8; it can be seen here that older and younger speakers of class 9 have approximately the same (oh)-negative response.

We can expand the view of the relations of the age

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levels by showing a table for the youth as well as adults. Table 4 shows five age levels, using the SEC scale for class divisions, as we regularly do whenever youth below 20 are included in the comparison; the same SEC groups as in Table 2 are used.

TABLE 4

PERCENTAGE OF (oh)-NEGATIVE RESPONSE BY SEC AND FIVE AGE LEVELS

	SEC							
Age	0-2	3-4	5-8	9				
8-15	25	37	67	(100)				
16-19	43	67	78	75				
					N:			
20-39	25	80	100	60	8	8	6	1
					7	6	9	4
40-59	18	60	62	57	4	10	11	5
					11	15	13	7
60-	33	(00)			6	1		

For all age levels, the lower middle class shows the highest level of (oh)-negative response. For the two center class groups, the young adults 20 to 39 years old show the highest degree of (oh)-negative response among age levels. From this point, the values for the younger children decline. We will show other evidence of this type to indicate that young people below the age of 19 or 20 have not yet acquired full sensitivity to the socially significant dialect features of their community. Nevertheless, the rule seems to hold that those who show the highest values for (oh) in casual speech will also show the greatest (oh) sensitivity in the SR test. There is a connection between [1] high vowels in casual speech, [2] correction over a wide range in formal styles,

[3] a regular pattern of stylistic stratification and [4] strong (oh)-negative response.

This surmise may be explored further by considering the relations of Jews and Italians in the SR test for (oh). Chapter IX showed that the Jewish-Italian contrast was more evident in the development of (oh) in apparent time than class contrast. Judging by our limited evidence, the high (oh) vowels seemed to have occurred earlier among the Jews than the Italians. If this is so, we would expect that older Jews would show a higher (oh)-negative response than older Italians, but that the younger groups of both Italians and Jews would show strong (oh)-negative response. Table 5 shows that this is indeed the case. As in the corresponding Table 9 of

TABLE 5

PERCENTAGES OF (oh)-NEGATIVE RESPONSE BY ETHNIC GROUP AND AGE

Age	Jews	Italians	N:	
20-39	88	100	8	8
40-	52	40	25	10

Chapter IX, only three lower classes are shown: the upper middle class is excluded. It appears that the Italians have actually surpassed the Jews in (oh)-negative response among the younger people, although the numbers here are too small to put much emphasis on the fact.

In Chapter VIII, Table 5 showed that women used higher (oh) vowels than men in casual speech, but in formal styles showed even a greater shift to the more open vowels, thus

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reversing the relationship. From these facts, we should expect that women would show a greater (oh)-negative response. There is a difference between men and women in the SR response, although the value of the difference is small. Fifty-four per cent of the men show (oh)-negative response in the three-choice test, and 60 per cent of the women.

Subjective reactions to (eh)

Sentences 10 and 11 will be used for an examination of subjective response to values of the (eh) variable. The structure of the (eh) section is illustrated on Figure 3, and the relevant values of the variables are shown below.

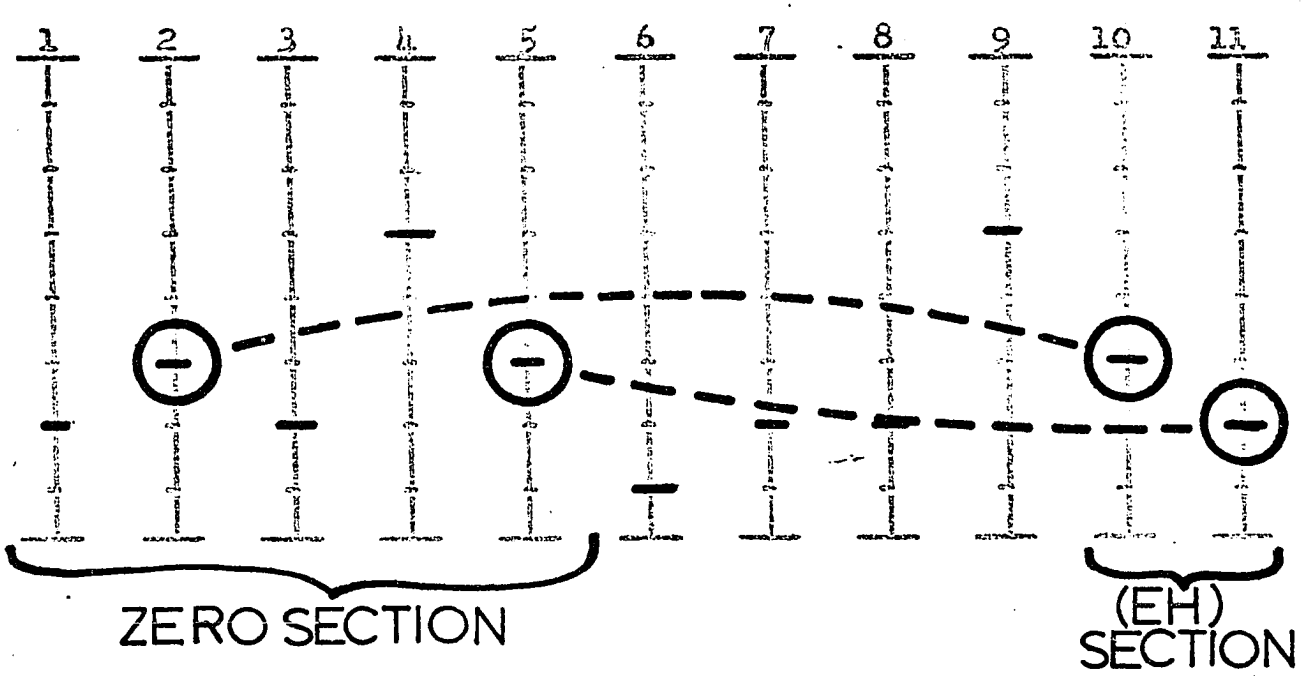

Figure 3

Structure of subjective evaluation form for (eh)

:I-20

Sentence Speaker

10 2 We used to play Kick-the-Can. You run past
(eh-4) (eh-4)

the man as fast as you can and kick a tin
(eh-4) (eh-3) (eh-4)

can so he can't tag you.
(eh-4) (eh-4) (eh-4)

11 5 "Bad dog!" but he was too fast. Only my aunt
(eh-2) (oh-2) (eh-2) (eh-2)

could catch him. She even taught him to ask
(oh-2) (eh-2)

for a glass of milk and jump into a paper bag.
(eh-2) (eh-2)

In the first sentence, Speaker 2, is heard using the corrected (eh-4) vowel. This is a long, fronted version of the vowel of bat, which conveys to many listeners the impression of tenseness. Her only inconsistency is the word fast, in which the vowel is (eh-3).

The second sentence is spoken by Speaker 5, the working class woman who was rated fairly high in the zero section, but was rated lower in Sentence 8 by most respondents. In the (oh) section, Speaker 5 used moderately high (oh) vowels with one semi-stressed high (eh). Here she uses a number of stressed (eh) vowels, quite long, at the level of (eh-2), the vowel of where, and two examples of (oh-2) under secondary stress.[9]

In reacting to Sentence 11, the listener is responding to the most common value of (eh) to be heard in casual speech in New York City. Figure 18 of Chapter VIII [the distribution chart for (eh) in Style A], shows a high concentration exactly

at (eh)-20. In Figure 18 of Chapter VII, all classes show regular style stratification for (eh). In contrast to (oh), we should therefore expect to see a uniform reaction to (eh) in the SR test.

For the simplest case of an (eh) negative response, we need only compare Sentence 11 to Sentence 5. Table 6 shows the numbers of responses for each socio-economic class which were higher, equal, or lower than Sentence 5.

TABLE 6

RESPONSES TO SENTENCE 11 IN RELATION TO SENTENCE 5 BY SEC CLASS

Relation to S. 5	SEC 0	1	2	3	4	5	6	7-8	9	Total
Higher	3	1	1	3	1	1	1	1	3	15
Equal	2	0	0	4	0	1	3	2	1	13
Lower	2	4	7	8	8	3	6	8	8	54

If this response is compared to the over-all response of the informants to Sentence 8 [again as compared to Sentence 5], it appears that the reaction against (eh-2) is even stronger than that against (oh-1) and (oh-2).

	Higher	Equal	Lower
Sentence 8 compared to 5	18	16	50
Sentence 11 compared to 5	15	13	54

The reaction against (eh-2) can be shown to be stronger in another sense. We may ask if Sentence 11 is not only equal or lower than Sentence 5, but also if it is equal or lower

than Sentence 8. For responses to Sentence 11 lower than Sentence 5:

8 lower than 11	8 equal to 11	8 higher than 11
12	26	35

If we now consider the class distribution of this complex characteristic, we have Table 7.

TABLE 7

PERCENTAGE OF RESPONSES TO SENTENCE 11 EQUAL TO OR LOWER THAN SENTENCES 5 AND 8 BY SEC CLASSES

SEC								
0	1	2	3	4	5	6	7-8	9
50	50	88	86	67	60	80	73	75

Table 7 shows that the working class exhibits the maximum (eh)-negative response. This table highlights the fact that (eh) is the uppermost consideration for the working class speaker who wishes to be correct in his speech, while (oh) plays a smaller part in his unconscious reactions.

The distribution of (eh)-negative response to Sentence 11 in apparent time is shown in Table 8. The comparatively high values show that we are dealing with a late stage of change from below, where social reaction from above has been imposed on almost all groups.

TABLE 8

PERCENTAGE OF (eh) NEGATIVE RESPONSE BY SEC AND AGE

	SEC Groups							
Age	0-2	3-5	6-8	9				
8-15	100	75	100	(100)				
16-19	86	100	100	75		N:		
20-39	75	90	100	80	7	8	6	1
40-	75	80	70	71	7	12	4	4
					4	10	11	5
					16	15	10	7

This table confirms our expectation that (eh)-negative reaction would be more general over class and age levels than (oh) reaction. Among the younger adults, the lower middle class and the working class show the highest level of (eh)-negative response. This fits the general view of the development of (eh) put forward in Chapter IX.

In Table 2 of Chapter VIII, Jews showed somewhat lower (eh) vowels than Italians in casual speech; Figure 20 gave us a graphic view of this relationship. The situation is just the reverse of the relations of Jews and Italians with regard to (oh). The subjective reactions of the two groups also show a reversal. Whereas the Jews were slightly higher in (oh)-negative response, the Italians show a greater (eh)-negative response.

TABLE 9

PERCENTAGE OF (eh) NEGATIVE RESPONSE FOR JEWS AND ITALIANS BY AGE

Age Level	Jews	Italians	N:	
20-39	86	100		
40-	81	88	14	6
All ages	82	91	28	15

The reactions to Sentence 10 are of an entirely different order from the reactions to Sentence 11. In Sentence 10, Speaker 2 uses a fairly consistent (eh-4), but it does not seem to satisfy a great many listeners. Reactions to Sentence 10 were quite mixed: they may be summed up in terms of higher and lower ratings as compared to Sentence 2.

TABLE 10

RESPONSES TO SENTENCE 10 AS COMPARED TO SENTENCE 2 BY SEC CLASS

Relation to S. 2	SEC 0-2	3-5	6-8	9
Higher	9	7	5	5
Lower	6	15	13	4

It appears that the working class and middle class definitely reject Speaker 2's version of (eh). However, the lower class and the upper middle class respondents do not share this reaction, and perhaps lean in the other direction. Overt comments on Sentence 10 were that the pronunciation seemed unnatural, or that Speaker 2 was trying too hard. When we compare Sentence 10 to Sentence 7--that is, Speaker 2 pronouncing (eh)-4 as compared to (oh-1), we find that Sentence 10 is rated only slightly higher. In 32 cases, Sentence 10 was rated higher than 7, and in 25 cases, 7 higher than 10. It can be concluded that most New Yorkers--and in particular members of the two center class groups--are not satisfied with the same pronunciation which they themselves use in formal contexts. There is nothing unusual about Speaker 2's (eh-4). This half-long, low front tense vowel may be heard in Styles C and D from most of the respondents who down-graded this usage when they heard it. It is possible, however, that the mixed reaction to (eh-4) as spoken by Speaker 2 is not entirely due to the fact that the vowel is over-tense and fronted. One inconsistency shown by Speaker 2 on the word

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fast may have been insufficient to produce a negative reaction. Similarly, we may recall that Speaker 4's inconsistent use of (oh) did not meet with general approval. Here there is no question of over-rounding, or length, but simply an oscillation of variants. On the one hand, Sentence 9 which contained these versions of (oh), was ranked higher than Sentences 6, 7, and 8 which contained (oh-1, 2). But on the other hand, there were more respondents who rated Sentence 9 lower than its correlate in the zero section than respondents who rated it higher.

The fact that New Yorkers are very sensitive to inconsistency of this type will be shown conclusively in the following section.

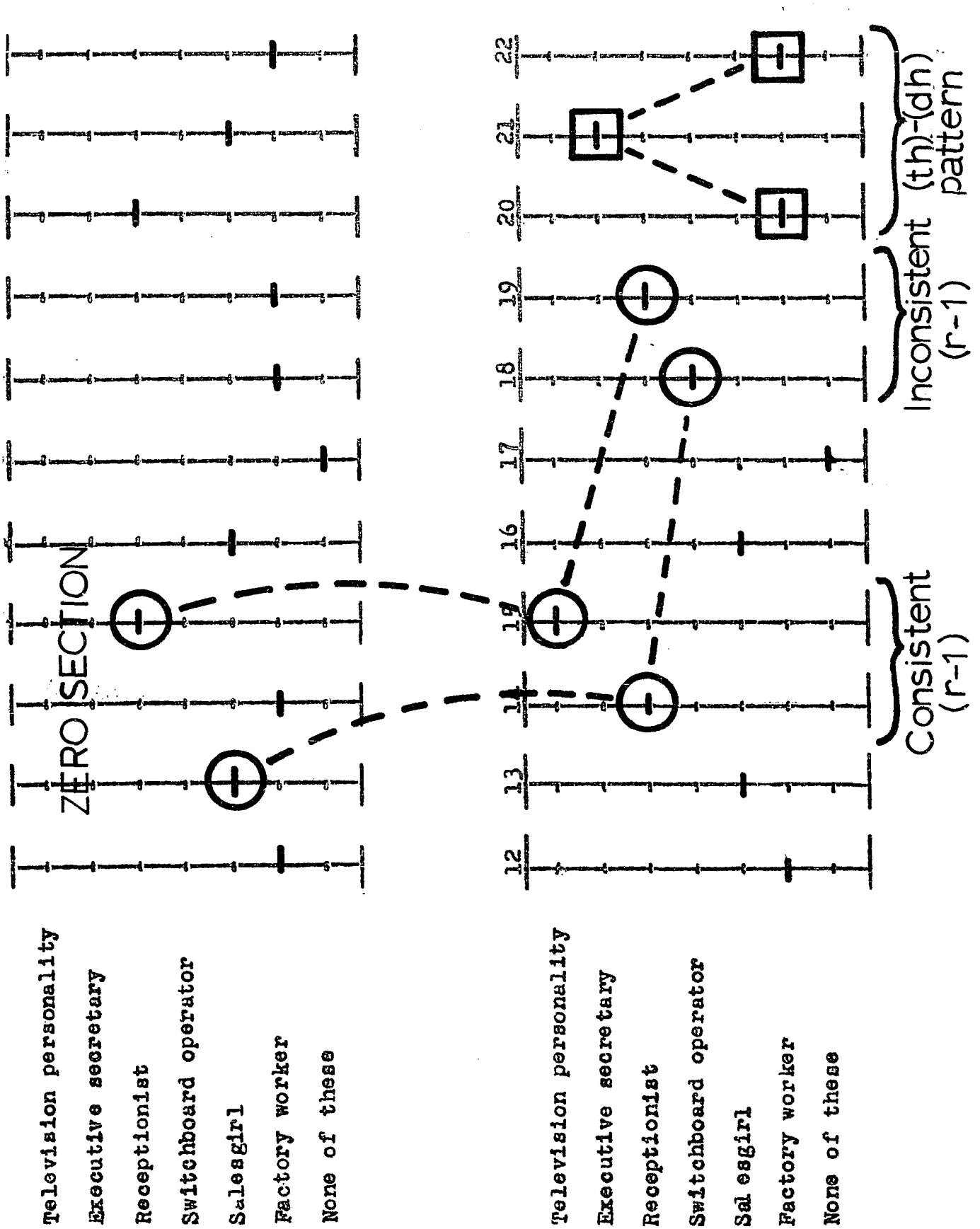
Subjective reactions to (r)

The structure of the SR test in respect to (r) is shown in Figure 4. We will examine Sentences 14, 15, 18, and 19 for subjective reactions to this variable. Sentences 14 and 15 represent consistent (r-1) pronunciation by Speakers 2 and 4. Sentences 18 and 19 show inconsistent (r-1) pronunciation by the same speakers.[10]

Sentence	Speaker	
14	2	He darted out about four feet before a car, (r-1) (r-1) (r-1) and he got hit hard. (r-1)
15		[Same as above]

Figure 4

Structure of subjective evaluation form for (r)



Sentence	Speaker	
18	2	He darted out about four feet before a car, (r-1) (r-1) (r-1)
		and he got hit hard. (r-0)
19	4	We didn't have the heart to play ball, or (r-1) (oh-3)
		cards, all morning. (r-0) (oh-3) (r-1)

We may consider that there are two possible sets of responses to these sentences which are consistent with the recognition of (r-1) as a prestige marker: rating Sentences 18 and 19 lower than 14 and 15 respectively, or in view of the fact that they represent the same speakers, rating Sentence 18 the same as 14, 19 the same as 15. Either of these reactions, or a combination, we will treat as (r)-positive. If in either case, the subject follows a contrary direction, rating 18 higher than 14 or 15 higher than 19, we will call his reaction (r)-negative. This test for subjective reaction to (r) will be called the two-choice test.

Table 11 shows the percentages of (r)-positive response to the two-choice test for four age levels, and five divisions of the socio-economic scale [the same divisions used for the original class stratification of (r) in Chapter VII]. In this table, our attention is immediately taken by a regularity more absolute than any that has been encountered so far. One hundred per cent of the speakers from age 20 to 39 showed (r) positive reactions to the two-choice test, but

TABLE 11

PERCENTAGES OF (r)-POSITIVE RESPONSE TO THE TWO-CHOICE TEST BY SEC AND AGE

	SEC										
Age	0-1	2-3	4-5	6-8	9	Total					
8-17	16	57	67	89	(50)	61					
18-19	100	--	100	100	100	100					
20-39	100	100	100	100	100	100			N:		
40-	63	67	50	70	57	62	6	14	12	9	2
							2	--	2	1	3
							3	6	7	11	5
							8	18	8	10	7

only 62 per cent of those over 40. Furthermore, this regularity is extended to the respondents 18 and 19 years old. A simple four-cell table shows a remarkable distribution of respondents who show (r)-positive and (r)-negative response for two age levels:

Age	r-positive	r-negative
18-39	42	0
40-	32	10

The zero cell of this table represents an absolute regularity which illustrates the uniformity of the New York City speech community on the plane of normative evaluation. Thus we see that an equivalent first-order structure parallels the regular structure of Chapter VII.

In Table 11, class differences have largely disappeared, and only differences in age level stand out. This is a particularly striking fact, since in Chapters VII and VIII, (r) showed the finest and most regular class stratification of all of the variables. We now find that this uniform

stratification of (r) in performance is accompanied by a uniform evaluation of the prestige norm by younger speakers of all classes. In Chapter IX, the objective evidence of speech pointed to a sharp break in the use of (r) between those 30 to 39 years old, and those 40 to 49. The data presented here confirm this discontinuity.

A more difficult test may now be constructed to include the two original Sentences 2 and 4. Consistent recognition of (r-1) as a prestige marker should lead to the rating of Sentences 14 and 15 equal or higher than the zero level of Speakers 2 and 4. Instead of a two-choice test, a four-choice test will be used to establish an (r)-positive response. For an (r)-positive rating the subject must rate the consistent use of (r-1) equal or higher than the zero level, and the inconsistent use equal or lower than the consistent use. A reversal in any one of these four choices will give the subject an (r)-negative rating. Table 12 shows the data for the four-choice test which corresponds to Table 11 for the two-choice test.

TABLE 12

PERCENTAGES OF (r)-POSITIVE RESPONSE TO THE FOUR-CHOICE TEST BY SEC AND AGE

	SEC										
Age	0-1	2-3	4-5	6-8	9	Total			N:		
8-17	00	36	33	67	(50)	37					
18-19	50	--	100	100	100	88	6	14	12	9	2
20-39	75	84	86	100	100	87	2	--	2	1	3
							3	6	7	11	5
40-	38	44	25	70	57	48	8	18	8	10	7

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The more difficult four-choice test reduces the over-all percentages slightly, but preserves the relationships intact. The results of the four-choice test are more impressive in several ways. If we take the total number of choices which respondents had to make, for Sentences 14, 15, 18, and 19, the following contrast between age groups appears:

Age	Choices consistent with recognition of prestige marker	No difference from zero level	Choices inconsistent with recognition of prestige marker
18-39	128	35	5
40-	108	48	48

The consistency of the younger group is the more remarkable when one considers that Sentences 14 and 15 are widely separated from Sentences 2 and 4 in the course of the SR test. Only five deviations from the pattern of (r)-positive response appear for younger speakers. Furthermore, these deviations were all in class 4 and below, so that it is evident that minor differences in sensitivity to (r) still exist among the several class groups.[11]

From the results of Tables 11 and 12, there can be no doubt that the age differences in (r)-positive response are well established. There is little room for differences of sex or ethnic group, or even socio-economic class, in the face of such a general change in apparent time. We see that socio-economic differentiation, obscured in the two-choice test, reappears to some extent in the four-choice test. The differences in age groups are repeated in every class, however, and

XI-31 they are larger in magnitude than any difference between classes.

The break is actually sharper than it appears in Tables 11 and 12. Figure 5 shows the percentages of (r)-positive response for nine age groups; the two-choice test responses are indicated by the solid line, and the four-choice responses by a broken line. The break seems to come exactly with those who were born in 1923 as far as our sample is concerned. No particular direction for those over 40 is shown in this figure, while at the other end of the scale, it seems to be just about at the age of 18 that young people learn to recognize the social significance of this feature.

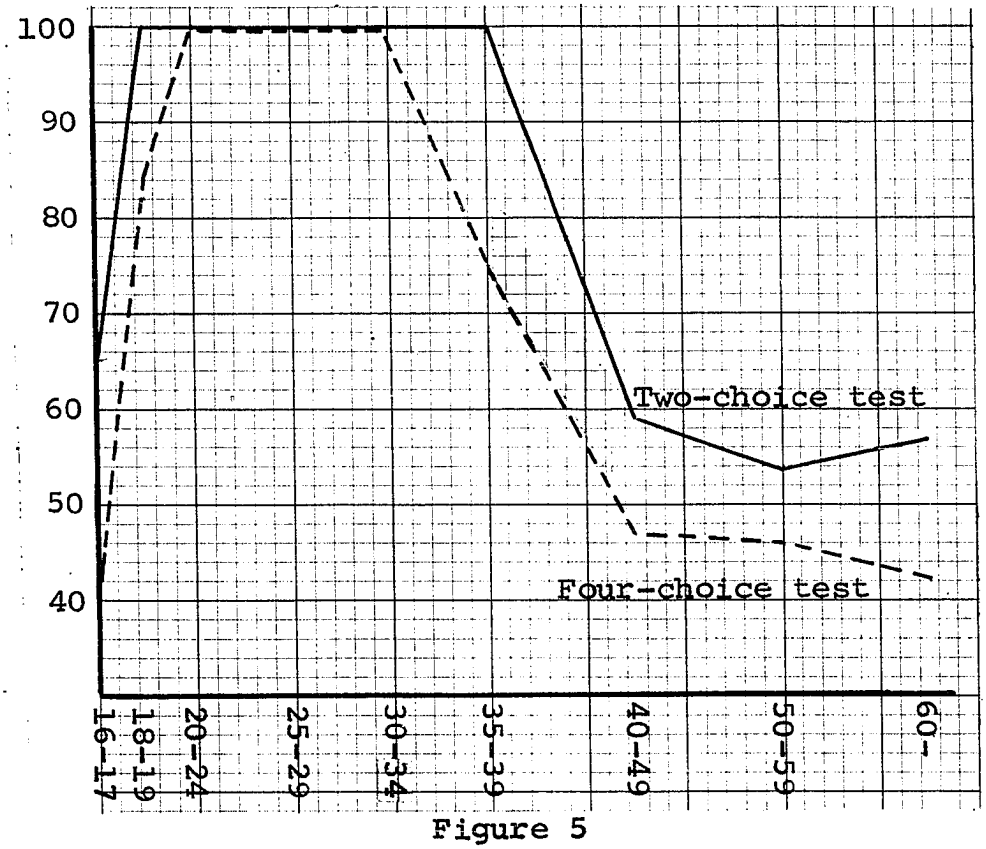

Figure 5
Subjective evaluation of (r) by age

The data presented so far lead to the tentative conclusion that New Yorkers under 40 react in a uniform manner to a single inconsistency in the use of (r-1), while those over 40 show a mixed reaction. This conclusion has considerable

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importance for a general explanation of the mechanism of the linguistic change which is taking place. We must therefore study any possibility that the pattern of Tables 13 and 14 is due to other causes. There are two classes of extraneous factors which may account for the patterns observed besides subjective evaluation of (r-1) as a prestige marker.

1. Other differences between the age levels besides differences in chronological age.

2. Other differences between Sentences 14 and 18, 15 and 19, besides inconsistency in the use of (r).

A number of these points may be checked by correlating (r) response with response to another variable: subjective reactions to (th) and (dh). We will therefore interrupt the discussion of (r) to present the results for (th) and (dh), and then return to the analysis of (r)-positive response.

Subjective reactions to (th) and (dh)

Figure 4 shows the structure of the SR test in regard to (th) and (dh). Instead of comparing the zero section to the sentences at the end of the test, we will study the relations of the ratings given to these three sentences alone.

Sentence	Speaker	
20	3	There's something strange about that--how I (dh-1) (r-0) (th-1) (dh-1)
		can remember everything he did: this thing, (r-0) (th-1) (dh-1) (th-2)
		that thing, and the other thing. (dh-1) (th-1) (dh-3) (dh-3) (th-1)

Sentence Speaker

21 4 There's nothing strange about that--how I can
(dh-1)(r-1)(th-1) (dh-1)

remember everything he did: this thing, that
(th-1) (dh-1)(th-1) (dh-1)

thing, and the other thing.
(th-1) (dh-1)(dh-1)(th-1)

22 3 I suppose it's the same thing with most of us.
(dh-1) (th-3) (th-3)

The numbers of the variants do not convey the full contrast between Sentences 20, 21, and 22. In Sentence 20, Speaker 3 seemed to sense the approaching problem of (th) and (dh), and she used considerable effort in pronouncing the first instances of these variables. She paused a moment before this thing, pronounced that thing clearly, and then apparently succumbed to fatigue. She finished with a rush on the other thing, using (dh-3) twice. The (dh-3) on other is the most prominent, and it brought comments from many listeners.

In Sentence 21, Speaker 4 reads with clarity: the quality of all her (th) and (dh) variables is unambiguously fricative. Despite the fact that she misreads nothing for something [she was reading without her glasses], the articulation of this sentence, its phrasing and cultivated intonation pattern, led many listeners to rate it highest of all the 22 test sentences.

In Sentence 22, Speaker 3 is heard again, reading the next sentence from the standard reading. Her low, husky voice quality contrasts with the clear tones of Speaker 4, and the

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articulation of consonants is noticeably less forceful. The (th-3) of thing and with is quite prominent.

For the (th) and (dh) variables, a minimal SR test is established. If a speaker is sensitive to the stigmatized forms of (th-3) and (dh-3), he should rate Sentence 21 higher than 20 or 22. There may be other factors besides these variables which would influence a person to rate Sentence 21 higher than the other two, since the voice qualities and the articulations of the two speakers are different. But if a person does not rate Sentence 21 higher than the other two, we can conclude that either he does not hear the difference between fricatives and stops for (th) and (dh), or else he is not sensitive to the social significance of this difference. We are not interested in those who react to the distinction so much as those who do not react.[12]

The patterns shown by Sentences 20, 21, and 22 may be classified into a number of sub-types. However, the most clear-cut distinction between the various patterns in terms of social distribution is that between those that show Sentence 21 higher than both 20 and 22, and those that do not. Any response in which Sentence 21 is rated higher than both 20 and 22 will be called (th)-sensitive. All other responses will be called (th)-insensitive.

For the study of (th) and (dh), the index of social classes will be used, since it was found in Chapter VIII that this scale gave a clearer view of the class stratification of these variables. Table 13 shows the percentages of (th)-in-

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sensitive speakers for two age levels of the four social classes.

TABLE 13

PERCENTAGES OF (th)-INSENSITIVE RESPONSE BY AGE AND SOCIAL CLASS

	Social Class							
Age	1	2	3	4				
20-39	(50)	13	29	00		N:		
					2	15	7	5
40-	43	33	20	14	23	9	15	7

In this table the lowest social class shows by far the greatest number of (th)-insensitive respondents. It is surprising to find that there is no difference between SC 2 and SC 3--that is, the white collar workers show the same result as the blue collar workers [with some high school], despite the fact that the latter use far more stops and affricates.[13]

In the relations of the age levels in Table 13, no regular trend appears. For SC 2, the younger speakers show more sensitivity to (th) and (dh), but SC 3 does not repeat this relationship. Both age levels of SC 4 are high in sensitivity to this variable, although the younger group shows a slight edge. This situation contrasts sharply with that of the three variables already discussed: (oh), (eh), and (r). In all three, there was a steady increase of sensitivity to the marked feature across all class groups. There is a contrast between the variables involved in processes of linguistic change, and those which are essentially stable. The developments were somewhat obscured in Chapter IX, since the older respondents tend to acquire the newer prestige pronunciation to some extent. Careful analysis of the possibilities enabled

us to reveal the pattern of change which lay behind the distribution of the variables in apparent time. However, no such problems obscure the development on the plane of subjective reactions. Here the imposition of new norms from above may be traced without interference, and the patterns of change are clearer than in the case of behavior itself. This was most striking in the case of (r), but a review of the entire SR test justifies such a view for each case.

There is therefore a recurrent pattern in the behavior of New Yorkers who use a high degree of a stigmatized form in their casual speech, yet recognize the social significance of this form by a shift in formal styles, and even more clearly, in their subjective reactions to the speech of others. We may see reflected in this opposition two contrasting social influences on language behavior: [1] the pressure towards identification with a particular ethnic, neighborhood, or occupational group and [2] the need to conform to the over-all hierarchy of values imposed by the community. Our studies of casual speech show the influence of both pressures; the SR test measures only the force of the latter. Thus the contradiction we have noted is a product of our approach more than of the informants' behavior. Their behavior may be described as response to the tensions created by opposing pressures rather than a series of internal contradictions.

We may continue our study of these opposing forces by considering the differences between men and women for (th) sensitivity. In Chapter VIII it was found that men used far

XI-37 more stops and affricates than women. The relations are reversed in the SR test:

	Average (dh) index in Style A	% of (th)-insensitive respondents
Men	54	9
Women	22	30

Here again it appears that those who show the greatest use of a stigmatized form also show the greatest sensitivity to it. Though it may be socially appropriate for men to use more stops and affricates, among their friends, or on the job, they are seen here to have a clearer perception about the social significance of the forms which they use.[14]

In Chapter VIII it was also shown that Italians used more stops and affricates than Jews [Figures 27 and 28]. We should now be able to predict that Italians will show a lower percentage of (th)-insensitive speakers than Jews.

	(th) index in Style A	(dh) index in Style A	% of (th)-insensitive respondents
Jews	61	47	27
Italians	115	72	14

Thus it appears as predicted that even though Italians use more stops and affricates, they show only half as high a percentage of (th)-insensitive respondents. The relationship between high use of a stigmatized form and high sensitivity to it seems to hold in every case for the relations of men and women, Jews and Italians.

Further analysis of (r) response

We may now return to the resolution of the questions raised on the analysis of (r)-positive reactions. We would like to ascertain that there is no other explanation for the sudden increase in apparent time of (r)-positive response besides a change in the linguistic structure of the speech community.

1. Other differences between the age levels. In Chapter IX, Figure 1, it was seen that the age levels of respondents are skewed in relation to class; however, Tables 11 and 12 of this chapter showed that the relationship of age levels is repeated for each class; it may be concluded that the change in (r)-positive response is independent of class.

It is also possible that the older speakers simply do not hear as well as the younger speakers. They may also show a tendency to tire more quickly as the SR test progresses, or they may have less interest in the test. All of these possibilities can be checked by considering the pattern of (th)-sensitivity. The three sentences for (th) occur at the end of the test, when fatigue is at a maximum. The (th) and (dh) sounds are more difficult to hear than the other variables, because they have the lowest acoustic energy.[15] We can say that those respondents who are hard of hearing, or who are fatigued by the test, or who show little interest in the test, are more likely to give (th)-insensitive ratings than the other respondents.

If we now study the reactions of the respondents to

(r) in relation to (th)-sensitivity, these questions can be resolved. For the sub-group of respondents who showed (th)-sensitive response, the factors of fatigue, loss of hearing, or lack of interest, should be considerably less than for the (th)-insensitive group. If there is a connection between these factors and (r)-response, the difference between age levels in (r)-response will appear significantly reduced for respondents who were uniformly (th)-sensitive. For the four-choise test, we find:

TABLE 14

PERCENTAGE OF (r)-POSITIVE RESPONSE BY AGE AND (th)-SENSITIVITY

Age	All respondents	(th)-sensitive respondents	(th)-insensitive respondents	N:
20-39	87	92	80	34 29 5
40-	48	46	50	51 35 16

It appears that (r)-positive response is independent of (th)-sensitivity. The pattern of (r)-positive response by age levels could hardly have been repeated more closely for the (th)-insensitive group than Table 14 shows. Only five younger respondents showed (th)-insensitive ratings: four of them were (r)-positive on the four-choice test. Sixteen older respondents were (th)-insensitive: eight of these were (r)-positive, and eight (r)-negative.

We may conclude that the (r)-positive response which was measured is a function of age, and that the factors of hearing loss, fatigue or lack of interest in the test are not likely to have played a part in this result.

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2. We may now consider the possibility that other variables associated with Sentences 14 and 15, 18 and 19 were responsible in whole or in part for the differential reaction of the age levels to the pairs of sentences.

When a speaker shows an inconsistency in (r), she is likely to show other pronunciation features which are less typical of careful speech. For example, in Sentence 19, Speaker 4 hesitated after the word ball [trouble with her eyesight]; her consonants were not formed or released as forcefully in 19 as in 15: she did not, for example, pronounce the final /t/ in Sentence 19, and one or two respondents noticed this.

Sentence 18 was taken from a first reading of the text by Speaker 2, and in this reading she was a little further away from the microphone than in the second reading, from which Sentence 14 is taken. Such differences as these may account for a part of the reaction which placed Sentences 14 and 15 higher than Sentences 2 and 4, 18 and 19. However, if this is true, there is no reason to suspect that out-of-town speakers would react any differently than native New Yorkers to the test. They should be able to hear such differences as preciseness of articulation, speed of reading, or distance from the microphone, just as well as New Yorkers. We may therefore turn to the out-of-town respondents to check this point. Table 15 shows the following percentages of (r)-positive response to the four-choice test:

TABLE 15

PERCENTAGES OF (r)-POSITIVE RESPONSE TO THE FOUR CHOICE TEST FOR NEW YORK AND OUT-OF-TOWN RESPONDENTS

Age	New Yorkers	Out-of-town	N:	
20-39	87	40	34	10
40-	48	50	51	22

The older out-of-town speakers show about the same response as New Yorkers did, but the younger speakers, instead of showing more (r)-positive response, actually show less. This relationship is exactly what we would expect if the test does measure the special New York response to (r-1) as a new prestige marker. The older out-of-town respondents have had about as much exposure to the new prestige form in New York City as the native New York respondents. But the younger out-of-town subjects were raised outside of New York, away from this influence, and have only had a brief exposure to it. The distribution of (r)-positive response among out-of-town speakers therefore confirms the fact that it is the variable (r) which is the focus of subjective reactions.[16]

We can use the out-of-town speakers to check this question in another way. If (r) is indeed the variable which is being measured in the SR test, then speakers who come from an r-pronouncing region should have more tendency to show (r)-positive response than those who come from an r-less region, where an r-less dialect has prestige. This is indeed the case. For the four-choice test, out-of-town respondents show very different results depending on whether they come

from an r-less or an r-pronouncing region.[17]

	Out-of-town respondents	
	from r-pronouncing region	from r-less region
(r)-positive	10	5
(r)-negative	7	10

The evidence that we have presented shows that the reactions to Sentences 14 and 15, 18 and 19, are indeed reactions to the use of (r). The evidence for a sudden change in the norms of r-pronunciation cannot be explained by the presence of associated variables. The original presentation of subjective reactions to (r) in this chapter showed a sudden increase in (r)-positive response in apparent time, and this increase points to a corresponding change in the structure of the New York City speech community in real time. As we have noted before, the change seems to be closely associated with the period of World War II: all those in the sample who were raised during and after the war show a uniform (r)-positive response in the test.

The convergence of social differentiation and social evaluation

At the beginning of this chapter, it was pointed our that a coincidence of patterns from the study of subjective evaluation and the patterns of social differentiation of speech, would provide good confirmation of the analysis that has been presented so far. A great many close correlations between

these two areas of behavior have been found. In this summary, we will review these correlations as they apply successively to the previous findings on the differentiation of the variables.

1. In Chapter VII, it was found that all five variables followed consistent patterns of stylistic and social variation in a two-dimensional structure. It was seen that the variable (oh) did not exist as a socially significant feature for the lower class: in the SR test, the lower class shows the minimum (oh)-negative response. The relations of working class, lower middle class and upper middle class to the structure of (oh) differentiation were reflected closely in their degrees of (oh)- negative response. The hypercorrect pattern of the lower middle class, shown by the cross-over in style stratification diagrams, is paralleled here by maximum (oh) sensitivity.

The variable (eh) was shown to differ from (oh) in Chapter VII in that all classes participate in the use of this feature as a socially significant variable. The SR test, showed a uniform high degree of (eh)-negative response [with the exception of class 0]. The cross-over pattern of the lower middle class also appeared in the SR test since the lower middle class showed higher (oh)-negative response than the upper middle class.

The variable (r) showed a fine-grained stratification of all levels of society, according to their differential use of (r-1). In the SR test, we find a consistently high level

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of (r)-positive response for all classes. Thus the penetration of society by the (r) variable is almost complete, and its status as a prestige marker is established.

The (th) and (dh) variables showed a regular pattern of social differentiation in Chapter VII, without any tendency for a crossing of class lines. In the SR test, there are three clear-cut levels of (th)-sensitivity. The pattern differs from that of Chapters VII and VIII only in that the upper section of the working class [SC 2] is at the level of the lower middle class, rather than at the level of the lower class. The lower middle class does not exceed the upper middle class in (th)-sensitivity; this is the most significant parallel, since it indicates in the SR test the relative stability of the social significance of these variables, just as shown in their class differentiation.

2. Chapter VIII showed an alternation between Jews and Italians in their relations to (eh) and (oh). In casual speech, Jews used higher (oh) vowels, and Italians higher (eh) vowels. In more formal styles, there was a tendency towards convergence at the more open variants. In the SR test, Jews showed higher sensitivity to (oh), and Italians to (eh). The degree of correction which occurs in speech is thus paralleled by the consistency of negative response to stigmatized forms. A similar parallel was shown for (th) and (dh), where the Italians use more stigmatized forms in casual speech, and a higher degree of (th)-sensitivity in the SR test.

In the relations of men and women, a similar set of

parallels was found between the differentiation of (eh), (oh) and (th)-(dh), and sensitivity in the SR test.

3. In Chapter IX, we found that the distribution of (r) usage in apparent time pointed to a sudden increase in the use of (r) in casual speech about the time of the second World War. This pattern is revealed in even greater clarity in the SR test. The variable (oh) was found to show a distribution in apparent time characteristic of relatively early stages of a change from below: only the highest ranking class showed signs of correction in casual speech, while only in more formal styles did the lower middle class show hypercorrection. In the SR test, younger respondents showed a higher degree of (oh)-negative response than older ones, for all classes, although the lower class response was on a level so low as to be almost negligible.

The distribution of variable (eh) in apparent time was found in Chapter IX to resemble the result of a change from below at a more advanced stage, where correction even in casual speech was evident. In the SR test, all classes showed a high level of negative response, and the continuing trend was evident in that the younger speakers showed even more (eh)-negative response in each class.

Finally, the variables (th) and (dh) showed some small indications of a trend towards increase of social significance in Chapter IX, although they were essentially stable as compared to the other variables. We may draw similar conclusions from the evidence of the SR test, though again, any evidence of a change is uncertain.

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The most general principle which appears from this review is that subjective reactions to phonological variables form a deeply embedded structure which is recognized by the entire speech community. The variable (oh) is the latest arrival in this structure, and is not fully integrated for all classes. In several respects, we have seen that some lower class New Yorkers do not participate fully in the structure of stylistic and social variation of all the variables. With these exceptions, we can say that New Yorkers recognize a common structure of social stratification of the variables. When a New Yorker uses a high degree of a stigmatized form, it is not because he does not recognize the same norms as the other members of society: we have found that he is usually even more aware of the social significance of this variable than others. The forces which preserve the structure of social differentiation of New York City are probably related to the need for self-identification with particular sub-groups in the social complex. This structure of social differentiation is not supported by the isolation of social groups, nor by their relative ignorance of each other's norms. We observe the process of increased differentiation of language behavior despite close contact of the social groups concerned, and their participation in a relatively uniform set of social norms.

Other approaches to social evaluation

The survey of the Lower East Side embodied several other approaches to the subjective evaluation of language, in

addition to the SR test: a self-evaluation test, an index of linguistic insecurity, and analyses of general attitudes towards New York City speech. A detailed presentation of these results would require several chapters, and add considerably to the length of this study. Since the findings of these other approaches are generally consistent with the findings of the SR test, as reported in this chapter, it will be possible to summarize them briefly and then proceed directly to the final synthesis of Chapter XII.

In the self-evaluation test, respondents were asked to select from several variant pronunciations of the variables, one variant which was closest to their usual pronunciation. The form of the questionnaire, and the values of the variables, are given as VI C in Appendix A. While the SR test showed New Yorkers to be quite accurate and consistent in their evaluation of the speech of others, they showed no such accuracy or consistency in the ability to report their own speech. Only two or three correctly perceived their own variant usage. The reports of most respondents were correlated with their own subjective norms as shown in the SR test, rather than with the speech sounds they actually used. The self-evaluation test indicates that most speakers do not perceive the speech sounds which they produce, but rather the subjective norms which are used to monitor their speech production.

The index of linguistic insecurity is based upon Section VIII of the questionnaire in Appendix A. Respondents hear two variant pronunciations of eighteen words for which

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social usage is divided. They are asked to circle the number of the variant which is correct, and then check the one they actually use. The number of items in which these two reports are different forms the index of linguistic insecurity. Table 16 shows the distribution of index scores for four socio-economic groups.

TABLE 16

PERCENTAGE DISTRIBUTION OF INDEX OF LINGUISTIC INSECURITY SCORES FOR ADULT NEW YORK RESPONDENTS BY SEC

	SEC groups			
ILI	0-2	3-5	6-8	9
0	44	50	16	20
1-2	25	21	16	70
3-7	12	25	58	10
8-13	19	04	10	--
	100	100	100	100
	[N: 16	28	19	10]

In this measure of linguistic insecurity, the lower middle class outdistances all others. The hypercorrect behavior of the lower middle class which appeared as a recurrent pattern in the study of the phonological variables, is correlated with extreme linguistic insecurity in the completely independent index given here. Since women show a greater range of stylistic variation, we would expect a correspondingly greater index of linguistic insecurity. This is the case: the average index score for men is 2.1, for women, 3.6.

The survey of general attitudes towards the speech of

New York City reveals the pattern of linguistic insecurity more explicitly. The great majority of respondents expressed negative attitudes towards their own speech, and towards the speech of the city in general. Almost all of them had been recognized as New Yorkers when they went outside of the city, and they felt that outsiders did not like New York City speech. Most of the respondents had tried to change their own speech in some way or another, and agreed that they would consider it a compliment to be told that they did not sound like New Yorkers.

On the other hand, the out-of-town respondents, raised outside of the city, did not share this dislike of New York city speech. The Negro respondents in particular reversed this attitude of New Yorkers; the characteristic features of New York speech which aroused negative response in white New Yorkers, were identified with Northern, educated speech by most Negro respondents. The general characteristics of Southern speech, admired by many white New Yorkers, were rejected by Negroes as uncultivated and "rough."

The pressures from below which maintain the social stratification of New York City speech are not consciously recognized by most New Yorkers. However, there is evidence of two recurrent forms of social evaluation which act to increase differentiation. One is the pressure towards conformity among children of high school age and below, who stigmatize severely the adoption of middle class norms early in life. The other is the association of the casual speech

pattern of working class men with cultural sterotypes of masculinity. Women show no comparable form of positive evaluation of their native speech pattern which would tend to stabilize their stylistic variation.

With this brief summary of other approaches to the social evaluation of language, we have completed the analysis of the social stratification of the English of New York City.

The results of Chapters VII through XI can now be applied to the solution of the problem set in Chapter I: to show a systematic and coherent structure for the phonological system of New York City English, in which variability is seen as an integral part of the structure rather than a deviation from it.

NOTES TO CHAPTER XI

[1]In some exploratory interviews, I used my own imitation of the sound (oh-l) in some test sentences to elicit reactions. A number of informants told me that my pronunciation sounded effeminate. From this one might conclude that high, fronted (oh) vowels were considered inappropriate for male speech. However, it soon appeared that I had been using an over-rounded variant of (oh-l) that is made with pursed lips. The equivalent male form, with equal height and fronting, is articulated without any noticeable pursing of the lips. No one can say how many slight differences may remain unnoticed in the attempts of the interviewer to imitate the pronunciation of a given class or region. Therefore, even if the reactions of the informants are immediate and strong, they may be reactions to unsuspected features of the utterance.

[2]The social characteristics and voice qualities of the five speakers may be described briefly as follows.

Speaker 1, is a middle-aged, Jewish woman with a high, quavery and uncertain voice. She lives in a middle-income cooperative; her husband is a certified public accountant. She had some college education.

Speaker 2, is a middle-aged Jewish woman. She lives in a low-income project; her husband is a carpet-layer. She attended two years of normal school, and is a part-time substitute teacher. Voice quality is nasal and penetrating; consonants are formed with considerable pressure and exploded with sibilance.

Speaker 3, is a young woman of Italian-born parents. She lives in a tenement apartment; both her husband and herself are semi-skilled workers. She has only a grammar school education and reads with considerable hesitation. Voice quality is husky and low; consonants are dark and velarized.

Speaker 4, is middle-aged Jewish woman, living in a middle income cooperative apartment. Of the five speakers, she is the one who would be described as "cultured" in Atlas terms. Her voice quality is fairly low and well-modulated; speaking and reading styles are not very different; consonants are usually formed carefully, but without the heavily aspirated and sibilant release of Speaker 2.

Speaker 5 is a middle-aged woman of Italian-born parents. She lives alone in a tenement apartment, and works at a factory job as an unskilled operator. She completed only the 6th grade in grammar school. Her voice quality shows a slight rasp, but is felt by many people to be "warm." She shows vivacity in her reading style, with a tendency to break into laughter, in contrast to the level and colorless tones

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used by Speaker 3 in reading. (eh) vowels are very high; (Oh) is moderate; (r) is consistently (r-0) in Style C. (th) and (dh) show moderately heavy use of stops and affricates.

[3]It was found to be important for the success of the test that the respondent read the text himself beforehand, or hear someone else read it. Otherwise, many listeners will find it difficult to realize that the speaker on the tape is only reading words which were written for her, rather than speaking for herself, and they will downgrade her for phrases such as "He was a funny kid, all right." They may remark in this connection, "I would never say anything like that."

[4]It is plain that such a rating cannot be taken literally. Many respondents needed this rating as an outlet for their strong negative feelings about certain sentences. I originally inserted this rating as a bottom rank which no one would choose, in line with the principle that some people hesitate to mark anything as the very worst. However, many informants went even beyond this mark, to the bottom of the line, which must then be considered as rank 0.

[5]After Sentence 5 was played, the listener was asked to mention aloud any particular words which came to his attention and influenced him in making his final judgment. After Sentence 11, the test was interrupted briefly to allow the respondents to rest; during this time, the respondent was asked a few general questions about his reactions, and the type of cues for which he was listening. The sentences from 12 to 22 were then played without interruption.

It seemed at first that the SR test would be a difficult and fatiguing one, and that it would not be easy to get most respondents to complete it. Experience showed that this was not the case. With the presentation described above, most respondents seemed to grasp the purpose of the test readily, and give their full cooperation. Many lower class speakers who had little education, and whose speech would be ranked at the bottom of the scale by most judges, took great pleasure in the SR test, and completed it with zest. Only two subjects failed to complete the test once they had begun it. In many cases, the SR test was administered to several people at once--in one case, to eight members of the family and friends. Altogether, two-hundred SR tests were completed, including ALS informants, their children, and supplementary informants.

[6]The word four is not listed, since (oh) before intervocalic (r) is regularly close to (oh-3) for most speakers, and never rises to (oh-1). The syllable er- in afternoon is regularly (r-0) for all four speakers, but a very sharp listening is required to detect the value of the variable here, and it may be counted as a small but constant factor in all four sentences. Speakers 1 and 2 use a tense, over-rounded form of (oh-1) which is particularly prominent in "chocolate

milk and coffee cake." As pronounced by Speaker 2, chocolate and coffee occur with a rhythmic extra stress that many listeners commented on: a "sing-song" effect.

[7]The numbers of cases for this table are the same as those shown in Table 2. This will hold for all subjective reaction tabulations by individual SEC classes. In all of the tables of this chapter, only adults from 20 to 75 are included unless otherwise specified in a table showing age levels.

[8]In order to match the presentation of Chapter IX, Table 3 of this chapter shows the percentages by social class rather than socio-economic class. The pattern of SC groups is the same as that for SEC groups, but comparison with Table 8 of Chapter IX will be made more precise by using the SC scale.

[9]Speaker 5 inserted the word dog in place of boy, in "Bad boy!" Despite this unwelcome intrusion, her reading was used because the versions of (eh-2) were highly characteristic of the forms to be heard in casual speech from many New Yorkers. Yet few informants would read a standard text with this variant consistently reproduced.

[10]There is also included in the SR test a pair of sentences showing consistent (r-0) pronunciation--spoken by 5 and 3. No significant social differences appeared in the reactions to these sentences. The most common response was for those who had rated the speakers very low to give them a slightly higher rating for their use of (r), and vice-versa. The neutral reaction to these sentences confirmed a view which can be drawn from Chapter VII: that r-less pronunciation by working class speakers is relatively colorless in New York City, and has little social significance. It is the prestige marker (r-1) which is the marked feature, and which has social impact when it is used.

[11]Differences exist in the fineness of reaction to Sentences 18 and 19. For all of the variables, the average values of the absolute differences in ratings of the same speakers are correlated with class. In the present case, the higher ranking classes seem to hear the difference between Sentences 14 and 18, 15 and 19, as slight differences; the ratings of the Speakers drop one or two ranks only. Lower ranking respondents react as a rule in an exaggerated fashion, and penalize the inconsistent utterances by rating them much lower than Sentences 14 and 15. If we sum the absolute differences between 14 and 18, 15 and 19, for all respondents between 18 and 39, we obtain the following progression:

Working class and Lower class 0-5	Lower middle class 6-8	Upper middle class 9
3.9	3.5	3.1
[N: 20	12	8]

[12]There is a special problem of considerable social interest in the speech of those who have been exposed to a standard dialect for many years, and yet find themselves unable, or unwilling, to utilize it in formal situations. The parallel between this deviation from social norms, and the deviation of those who have not accepted the norms of educational aspiration, may be quite close.

[13]The results seen by using the SEC index are quite similar:

SEC					SC			
0-2	3-5	6-8	9		1	2	3	4
42	24	19	08	All ages	44	21	23	08

[14]We are dealing with a situation in which men are evaluating women speakers. It is possible that the situation would be different if men were evaluating men, or women evaluating men, but we have no data to compare such responses with the SR test as completed.

[15]In the television interviews conducted over the telephone, for example, we obtained lower (th) and (dh) indexes in many cases than when the same informants were interviewed in person. The low energy of these variables was responsible for a number of distinctions being obscured by losses and noise in telephone transmission.

[16]A majority of the out-of-town respondents were Negroes. This group is therefore not comparable to the New York respondents, and it is possible that the special (r) response of Negro subjects was responsible for the difference. However, when we compare only Negro out-of-town subjects with only Negro New York subjects, the difference in (r) response holds. The younger New York Negro respondents showed even more consistent (r)-positive response than the younger New York white respondents.

[17]In this case, we do not expect to find that the low use of (r-1) among younger speakers is associated with high sensitivity to this prestige feature. The younger out-of-town subjects who were raised in an area where the prestige norm was an r-less dialect, would have no reason to stigmatize sentences 18 and 19, or award high ratings to 14 and 15 on the basis of consistent (r-1) pronunciation--except in so far as they have absorbed the New York City standard. It seems natural that they could apply this standard less accurately than those who had been born and raised in the city.

PART IV

SYNTHESIS

CHAPTER XII

THE STRUCTURE OF THE NEW YORK CITY VOWEL SYSTEM

The opening chapters of this study presented the problem of accounting for large scale variation in the speech of New Yorkers. Inconsistencies and oscillations ranged over a considerable part of the phonological system, to such an extent that it was difficult to construct a coherent system for the speech of most individuals. Thus we find Hubbell describing the use of /r/ by New Yorkers as "a pattern that might accurately be described as the complete absence of any pattern.... thoroughly haphazard.... a matter of pure chance..." [page 14].

In Chapter VII, we defined structure in terms of regular structure, and showed that when deviation from regular structure goes beyond a certain point, the concept of structure ceases to have any meaning. If Hubbell's presentation is correct, then there is no structure for that large part of the phonological system which involves the use of /r/ and the ingliding vowels.

In the previous studies, one can find many observations which reflect an awareness of the general social significance of the variables that have been investigated here. Frank, Hubbell and Bronstein are native New Yorkers, and they grew up

II-2 with a native feeling for the social significance of these variables. Though Hubbell thinks of correction only as conscious correction, he is aware that r-pronunciation has prestige for many of his informants. However, these writers viewed such variation as deviation from the structure of speech, which had to be eliminated or disregarded for a systematic presentation of linguistic patterns.

In the present work, this attitude is reversed. We conceive of the variation itself as an integral part of the structure of New York City speech.

Hubbell's statements are cast in a very strong form, yet the most reasonable interpretation is simply that no detailed pattern in the use of /r/ had appeared in the course of Hubbell's investigation. Since the present investigation has been successful in finding such a detailed pattern, the question of pure chance in the use of /r/ is more or less obsolete. This study began with the assumption that Hubbell's statements were not to be taken literally, and the basis for this assumption is a part of the continuing logic of this study.

The only consistent meaning we can assign to the statement, "The occurrence of X is a matter of pure chance," is that occurrences or non-occurrences of X occur in a sequence which exhibit no functional relations with any other sequence of events.[1] This is what we mean by "absolute disorder," or "random distribution." A claim that certain events occur at random requires more extensive proof than any claim for a

:II-3 correlation between events, since every conceivable possible relation must be investigated and rejected in order to prove a random distribution.[2]

All of the findings of linguistic research, in the last century and a half, point to the fact that language is one of the most highly determined forms of human behavior, and that the phonological system is the most highly determined portion of language. By "determined" in this sense, we mean that the occurrence of linguistic units and relations form sequences that are closely correlated with many other sequences: in other words, that they participate in regular and near-regular structures. On the basis of this general experience, and since Hubbell had provided no proof of random distribution for /r/, it was assumed that Hubbell's statements were incorrect. The findings of Chapters III, VII-IX and XI have verified this assumption. If we sample the speech of individuals without controlling stylistic variation, the results are indeed chaotic. But when the speech of these individuals is charted along the axis of stylistic variation, a recurrent first-order structure appears. When their over-all usage is displayed along the axis of social variation, it appears as a regular element in a second-order structure. Thus the entire approach of the present study is based on the general principle of structural analysis set forth in Chapter VII: that recurrent deviations re-define regular structure. Without such a formal principle, we are limited to sporadic attempts to impose on every individual a general pattern,

selected on a more or less arbitrary or intuitive basis.

In Chapters VII through X, the phonological variables were studied through average values of the indexes. An individual's index for (eh) in a given style was averaged with those of other individuals for that style, giving a group index. The structures studied so far have been relations between average values rather than relations between the values used by single speakers. This procedure has given us reliable group indexes which have enabled us to analyze the effects of many independent variables.

In this chapter, we begin by establishing the structural correlations of the variables within individual systems, and study the distribution of such correlations for the population as a whole. In this approach, we will show the relation of the phonological structure to the internal economy of cognitive communication: that is, the pressures exerted on language by the need to distinguish words which differ in their denotations. Chapters VII-X began with the distribution of the individual variables, and established the social significance of each. The parallels between the social distribution of the variables (eh) and (oh) reflected structural parallels within the vowel systems which will now be studied directly When we then study the distribution of such vowel structures throughout the population, we will be studying the influence of expressive communication upon cognitive communication.

II-5

Co-variation of (eh) and (oh)

In the preceding chapters of this study, many parallels between the variables (eh) and (oh) were found. They may be summarized briefly as follows:

1. Both follow a pattern of stylistic variation from high vowels in Style A to low vowels in Style D.

2. Both show a pattern of social variation in which the lower ranking classes use high, close vowels and the upper ranking classes use low, open vowels; the lower class participates in (eh) variation only.

3.Both show a cross-over pattern in Style D for the lower middle class, and a reversal of stylistic variation in Style D for the upper middle class.

4. Both variables are stratified more sharply by ethnic group than by SC or SEC indexes. The Jews show higher (oh), the Italians higher (eh), and the Negroes show little participation in the social or stylistic variation of either.

5. Women show the most extreme values of both, using higher vowels than men in Style A, and lower vowels in Style D.

6. Both show distributions in apparent time which follow the model for linguistic change in progress, with (eh) showing a later stage. Ethnic groups show sharper differentiation in apparent time than class groups. The Jews show more increase of high (eh) by age level, and the Italians more increase of high (oh).

7. New Yorkers show negative subjective response to the high close vowels of both (eh) and (oh); the greatest sensitivity is to (eh). The groups which use the highest vowels

in casual speech show the most negative response to these forms in the SR test.

8. In the self-evaluation test, New Yorkers report themselves as using lower, more open vowels for both (eh) and (oh) than they actually do. Jews report lower vowels for both than Italians, while Negroes report their usage accurately.

9. Out-of-town speakers do not show the patterns listed above for (eh) and (oh), neither in objective distribution nor in subjective reactions.

Such a pattern of extensive parallels implies that these variables are very likely to show co-variation when they are correlated for individual speakers. Figure 1 shows the correlation of (eh) and (oh) in casual speech by sex and ethnic group for adult New York City informants. The same symbols are used for sex and ethnic group as in previous distributional charts.

The rows and columns shown in Figure 1 were derived by beginning with the concentrations which surround the (oh)-20, (eh)-20 point, and then drawing solid lines around those diagonally connected groups in which (eh) and (oh) have about the same values. The dotted lines extend these quadrangles to divide the field into five (eh) columns and four (oh) rows. The four cells in the lower left are empty, and the six at the upper right are so sparsely populated that they have been combined into larger quadrangles. The central quadrangles: Ia, IIb, IIIc, IVd, contain 45% of all the informants; the parallel diagonals which are drawn to connect the corners of

11-7

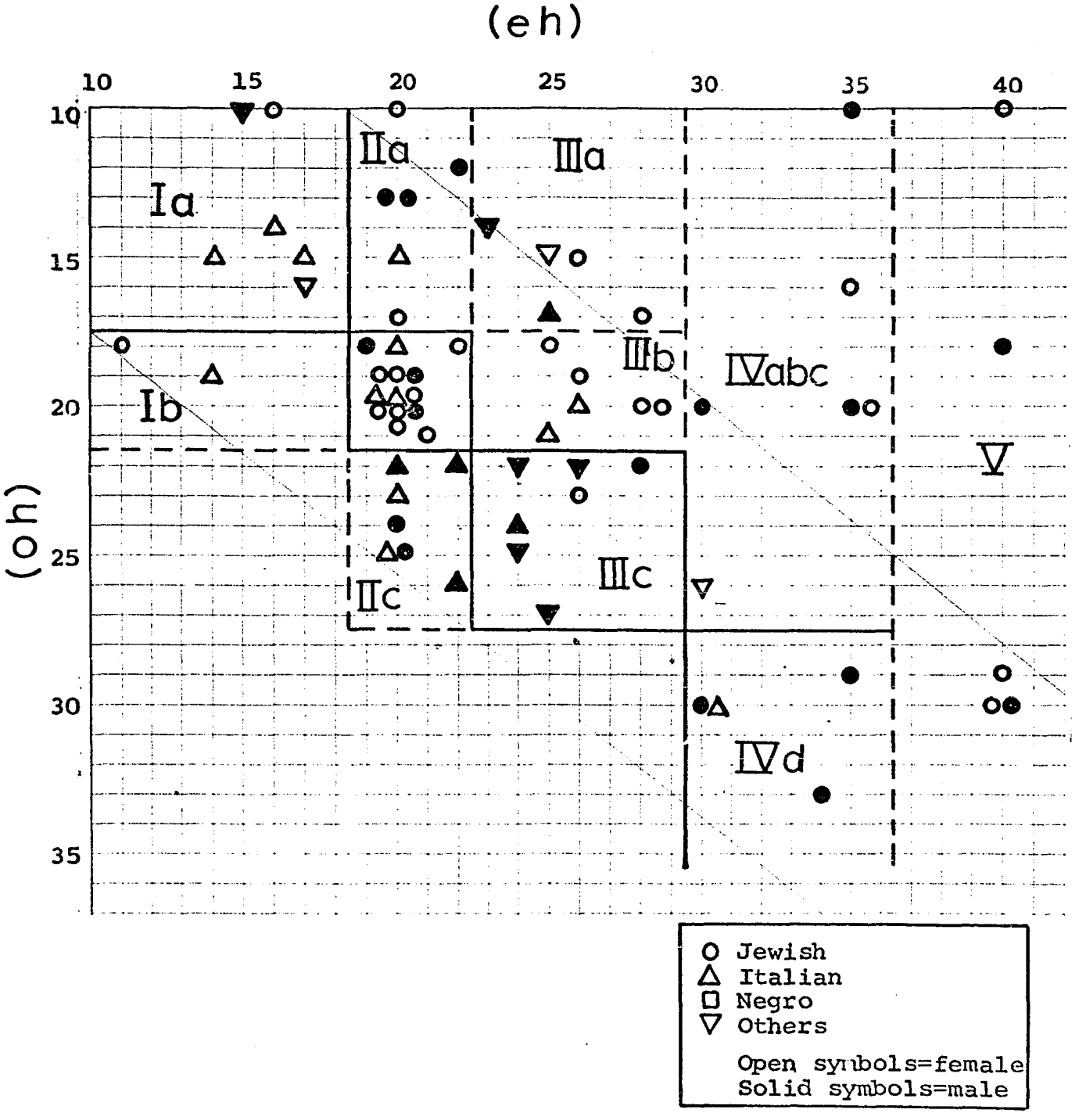


Figure 1

Co-variation of (eh) and (oh) in Style A for ALS New York City informants

these central groups contain 83% of the informants. There are no informants below the diagonals, and only 12 above.

The correlation of (oh) and (eh) may be shown more precisely by tabulating (oh) values for each of the five (eh) columns marked Figure 1:

TABLE 1

CO-VARIATION OF (eh) AND (oh) IN STYLE A

Column of Fig. 1	(oh) range	Average (oh) indexes	N:
I	10-17	16	8
II	18-21	19	27
III	23-28	20	18
IV	29-36	23	10
V	37-40	24	6

This table shows a regular progression of increasing (oh) with increasing (eh). For the first two columns, the values of the variables are in the same range; in the remaining three, the values of (eh) are increasingly greater than those of (oh). This reflects the influence of social correction of (eh), to a great extent, and it has been shown that such correction goes far beyond the correction of (oh). The informants whose values are located above the diagonals are almost entirely from the Jewish group. All of the informants whose (eh) values are in Column 5 are Jewish, and all but two in Column IV. Thus the tendency of some Jewish speakers to use low (eh) vowels in casual speech is clearly marked.[3] It is possible, for those in Column V, that this vowel is a part of their native speech

pattern. But the informants in Column IV seem to have introduced (eh-4) into their speech pattern at a time when their native pattern was already formed, since they show sudden oscillations to (eh-2) in at least one quarter of the instances.

There are a number of Italian speakers concentrated in Quadrangle Ia: the informants who use a preponderance of (oh-1) and (eh-1). Italian men are mostly to be found in the low central part of the main sequence, together with other Catholic men. Fourteen out of 18 of the informants in the three lowest quadrangles--IIc, IIIc and IVd,--are men. The tendency of men to use moderate values of both (eh) and (oh) is clearly displayed, although there are also a certain number of men with considerably higher values of both variables.

Co-variation of (ay) and (aw)

In Chapter X, we observed many parallels in the distribution of the interpersonal variables (ay) and (aw). Both follow a pattern of social variation with increasing nucleus-glide differentiation for the working class and the lower middle class. Both show comparable values for Jews and Italians, and lower values for men than women. Both show a pattern of distribution in apparent time which indicates early stages of a linguistic change in progress. We may now examine the co-variation of these variables in Figures 2 and 3. The undifferentiated forms are placed at the lower right, and in-

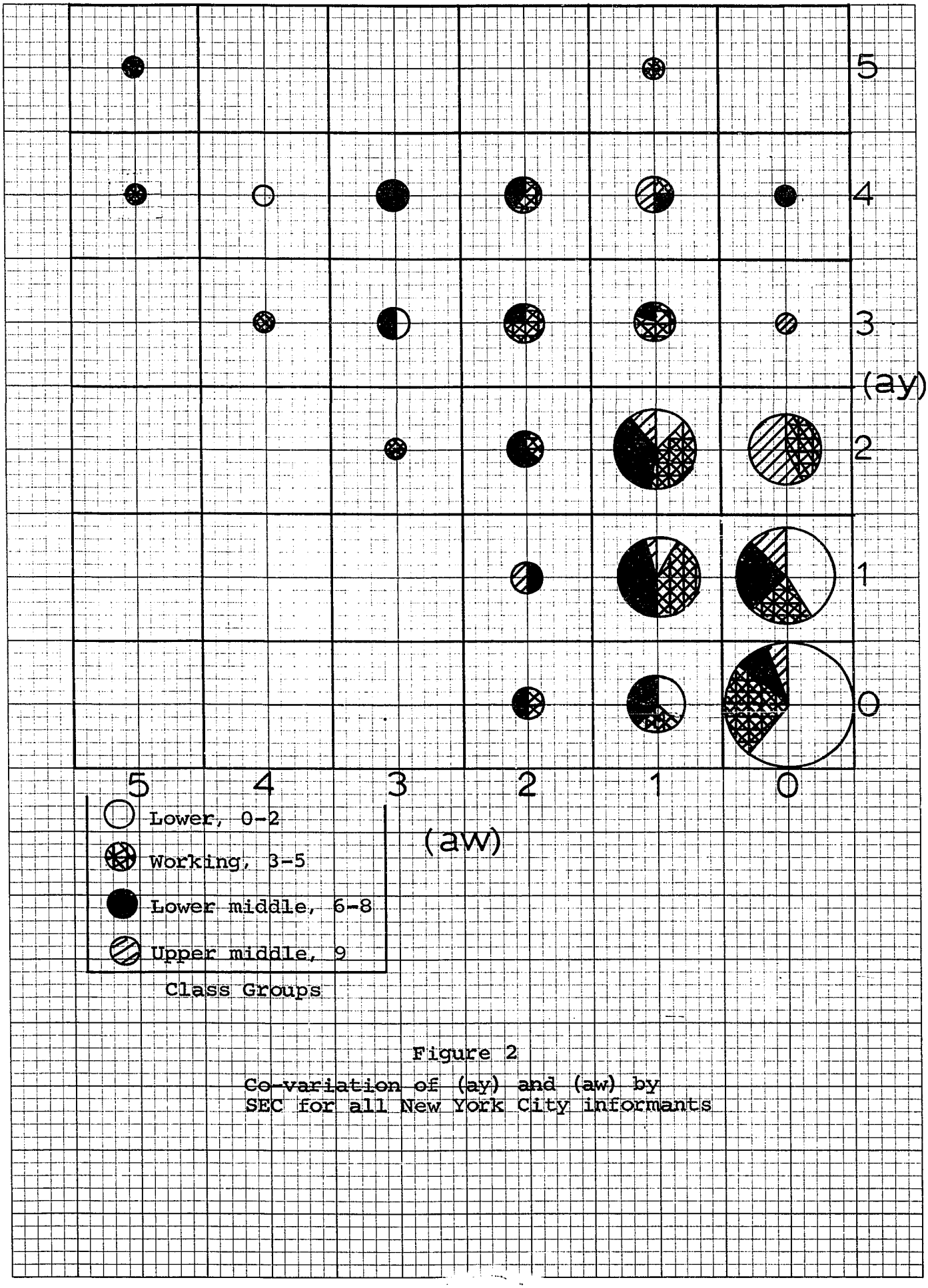


Figure 2

Co-variation of (ay) and (aw) by SEC for all New York City informants

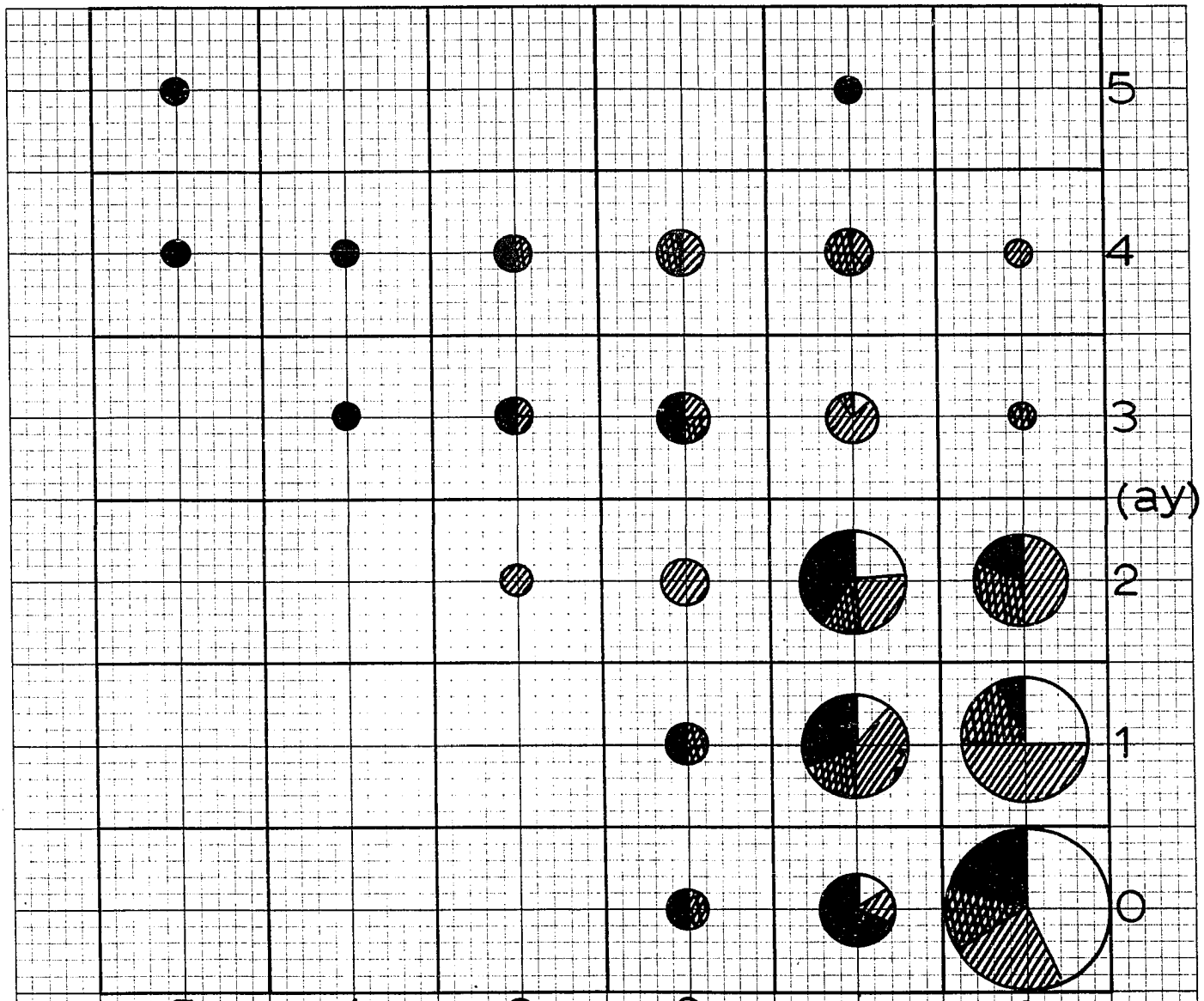


Figure 3
Co-variation of (ay) and (aw) by age for all New York City informants

XII
12

creasing nucleus-glide differentiation is shown in the sequence leading towards the upper left. All white New York City informants are included: regular ALS informants, children of ALS informants, and the television interviews.[4]

In Figures 2 and 3, the area of the circles is proportional to the number of respondents in each cell. Thus the 1" diameter circle at lower right represents 37 informants with (ay)-00, (aw)-00, and the small circle at the upper left represents one informant with (ay)-50, (aw)-50. In Figure 2, the divisions within each circle indicate the percentage of each class group within each cell. It is evident from Figure 2 that lower class informants predominate among those with no differentiation of (ay) and (aw), while working class and lower middle class speakers show the greatest tendency towards extreme differentiation of these variables. The upper middle class does not treat the two variables symmetrically: the great majority of class 9 speakers are located in the three cells at the right which show some (ay) differentiation, but none for (aw).

In Figure 3, the same co-variation diagram is repeated showing the distribution of age groups within each cell. The half-generations tabulated in Table 16 of Chapter X are used here to give four age levels. The rapid development of nucleus-glide differentiation for the younger age levels is quite apparent in Figure 3: the oldest speakers are concentrated heavily at the lower right, and none appear in cells beyond (ay)-3 or (aw)-2. The four informants at the upper

left are all quite young; this portion of the diagram may therefore represent phonological habits not yet solidified, and these young people may retreat to less differentiated values of (ay) and (aw) as they grow older.

The co-variation of (ay) and (aw) may be shown in a numerical progression similar to that used for (eh) and (oh):

TABLE 2

CO-VARIATION OF (ay) AND (aw)

	(aw) levels					
	0	1	2	3	4	5
Average (ay) / 10	0.7	1.8	2.3	3.2	3.5	5.0
N:	70	42	14	5	2	2

The correlation of these two variables is exceptionally close; the (ay) values have been divided by 10 to show that they approximate the (aw) levels in each of the six categories shown. This correlation is not disturbed by social correction of one member of the pair, as was seen in the case of (eh) and (oh).

The established facts of co-variation will now be used as a basis for an abstract statement of the structure of the New York City vowel system. The units of this system are not variables, but phonemes; in order to proceed, it will therefore be necessary to take up certain questions on the methods of determining the phonemes of the system.

XII-14

Two approaches to phonemic analysis

A phoneme is a functional unit in the sound pattern of a language: the minimal unit which is used to distinguish words or word sequences.[5] The first step in phonemic analysis is to examine a particular type of phonetic environment--such as that of vowels in stressed syllables terminating in a final consonant or cluster of consonants--and determine the number of functionally different sound units in that position.[6] There are two basically different approaches to this task: [1] through evidence of direct contrast between words or word sequences, and [2] through the distributional patterns of speech sounds. The first approach may be called contrastive analysis, and the second, variance analysis.

In contrastive analysis, the existence of phonemic contrast between two speech sounds is established through the use of minimal pairs of words, or near-minimal pairs. A complete set of contrasts for an entire structure requires the inclusion of words which are not particularly common in everyday speech, as well as the use of environments which are not precisely the same. For example, a list of contrasting phonemes in New York City English might be established from: bead, bade, bad, had, hod, bawd, bud, hood, booed, rude, beard, bared, barred, bored, moored, bird, stirred, bide, bowed, buoyed.[7] The contrast between near-minimal pairs can be re-checked by other sets of minimal pairs. For example, bad vs. had can be re-checked by can [noun] vs. can [auxiliary], or moored vs. booed by moored vs. mood. Similarly, odd or rare words can be

eliminated by the use of overlapping sets of common words.[8]

In variance analysis, one begins with a range of sounds that has been tentatively identified as a phonemic unit--either because this range seems to form an isolated cluster, distinct from all other speech sounds, or because it seems to be consistently associated with a particular group of words or word sequences.[9] This tentative identification is confirmed by charting all of the variants within the range, and all neighboring ranges, within a particular phonetic environment. Within the original range of sounds in question, there may be variants which occur only in a particular group of words; if the occurrence of this variant is not accounted for by some element in the phonetic environment common to the word group, then this variant shows phonemic contrast with other variants within the particular range of speech sounds.[10]

The exterior boundaries of the range are then examined. If these boundaries overlap the boundaries of some neighboring range of speech sounds, tentatively considered as phonemically distinct, the extent of the overlap must be examined to resolve the question raised.

The same criteria that were used to define structure, as opposed to regular structure [Chapter VII], may be applied to this problem. An occasional overlap may be treated as a deviation from regular structure.[11] If, however, the deviation from regular structure becomes so great that one can no longer predict in which category a word will occur, then the structure is not meaningful, and there is no phonemic distinction between the original range of speech sounds, and the overlapping neighboring range.

Thus in the case of one lower class Italian woman in the ALS survey, we find this variance for a tentative /eh/ in Style A: 1112122. Unless the variant used in the word group of here and beard is considerably higher than (eh-1)--[i$^{\ominus}$] as opposed to [ɪ$^{\ominus}$]--there is an overlap of variants for two word groups normally considered as occurring with phonemically distinct vowels. On the other hand, the same woman shows variance for a tentative /oh/ of 222212222. The existence of a single (oh-1) would not lead us to infer a merger of the next higher vowel /uh/ with /oh/, unless we found that the variants of /uh/ words such as sure, poor, included many (oh-2) forms.[12]

By an extension of variance analysis, the phonemic patterns of groups may be studied as well as those of individuals. Figures 18 and 26 of Chapter VIII [Detailed distributions of (eh) and (oh) in Style A] show groups of speakers with a functional unit at (eh)-20 and (oh)-20. The clustering of variants within the speech of an individual suggests a functional unit, and the clustering of individual averages for groups around the same unit strengthens this suggestion for the entire group. However, the existence of a distinct phoneme for the group of words under consideration can be decided only after variance analysis of neighboring ranges is concluded.

In the analysis of language in a community with a limited range of stylistic and social variation, variance analysis and contrastive analysis will converge. Both are normally used, more or less in alternation, to determine the phonemic structure of a language or a dialect. Suggestions of phonemic structure established through variance analysis

are confirmed and checked rapidly by contrastive analysis.

However, it is apparent that the two methods do not converge in New York City. Contrastive analysis is not applicable to casual speech, because most of the forms needed for direct contrast rarely occur in a limited sample of every-day conversation.[13] Contrastive analysis usually requires some technique for concentrating the minimal pairs or near-minimal pairs, and this automatically establishes Style D or Style C in the structure of New York City speech. For Style A, variance analysis is required, since the casual, undirected speech of the informant usually provides us with a list of forms in which the phonetic environments [including stress] are not similar enough to allow the precise statements typical of contrastive analysis.[14] For the present study, we will use variance analysis for Style A, and contrastive analysis for Style D, and we will not expect the results to converge.

The initial statement of phonemic structure will rely upon Style A and variance analysis. Casual speech is closest to the speech pattern acquired by the individual in his formative, pre-adolescent years, and this pattern is more fundamental to the structure of the speech community, and the genesis of linguistic change, than the speech pattern acquired in later years which dominates Style D, and which appears in contrastive analysis. The intermediate styles are less highly structured than A or D. A comparison of Figure 18 and 19 of Chapter VIII shows that the discrete structure of casual speech, with horizontal layering and clustering of ranges of speech

KII-18

sounds, begins to blur in the distribution for careful speech. In Figure 21 of Chapter VIII, we can compare the group variance characteristic of Styles A, B, and C. In Style A, both Italians and Jews show a peak around (oh)-20, representing a fairly consistent use of (oh-2). In Style B, there is a more diffuse, bi-modal distribution, with two peaks. Style C shows a consolidation of variants around a single norm, (oh)-22-27, but this norm necessarily represents a mixed use of (oh-2,3,4).[15]

We will now proceed to the analysis of the vowel structures of white ALS New York City respondents, in casual speech. Negro informants will not be included; it has been shown that the use of (eh), (oh), (ay), and (aw) by Negro speakers is quite different than for whites, and a separate study of Negro speech would be required to analyze the complex structures involved. The principal phonetic environment used for variance analysis of the vowels is that provided by the word group used for (eh) and (oh), as defined in Chapter II: stressed syllables terminating in a voiced stop or voiceless fricative, in final position or followed by a regular suffix.

Second-order vowel structures

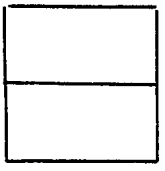
The list of short vowel phonemes given in Chapter II is essentially the same for all New York speakers.[16] There is a set of front vowels, as in pit, pet, pat, which may be ranked as a linear set by considerations that are independent of articulatory or acoustic measurement. The operations which select these units encounter border-line cases which are inter-

mediate between pit and pet, but are remote from pat, and other cases which are intermediate between pet and pat, but are remote from pit, and finally no cases that are intermediate between pit and pat. This set forms a first-order structure with the articulatory dimension of tongue height, or with spectrographic measurements of formant position.[17] This first-order structure is repeated for the linear set of vowels found in words such as put, putt, pot. The repetitions are ordered as a linear set on the scale of advancement of the highest point of the tongue, and thus form a second-order structure:

/i/	/u/	pit	put
/e/	/ʌ/	pet	putt
/æ/	/a/	pat	pot

This structure may be symbolized by a rectangle in which each intersection represents a phoneme:[18]

(1)

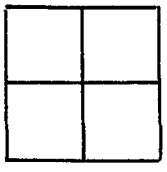


The series of ingliding or long phonemes presented by Hubbell forms a more complex second-order structure:

/ih/	/ɜh/	/uh/	Beard	bird	moored
/eh/	/ʌh/	/oh/	bared	stirred	board
/æh/	/a h/	/ah/	bad, Cary	ask, aunt	bard

We may represent this structure abstractly as:

(2)



KII-20

Hubbell notes that no one person is apt to have all of these vowel phonemes. Those who use /ɜh/ are not apt to use /ʌh/, for example. Model (2) thus represents an over-all pattern. Since no one actually speaks such an over-all pattern, the utility of this abstraction is questionable. It does not show the structural relations of the variables that we dealt with in preceding chapters, but rather relations to an abstract possibility which never occurs. It does not indicate the possible directions of linguistic change, nor does it illustrate the internal economy of the linguistic systems which do occur.[19]

Hubbell's scheme must be simplified in order to present the principal structures of the ingliding phonemes which are actually used in casual speech by the Lower East Side informants. There is no phoneme /ɜh/ for any of our informants in casual speech. A speech sound [ɜ·] does occur, but rarely in the word class of bird, heard, etc. It is used in the class of her, were, etc., and variance analysis shows that it overlaps the speech sound [ʌ·] for most respondents.[20]

The phoneme /aˢh/ did not occur in the casual speech of any informant. This is the Eastern New England form used in ask, path, bath, etc., adopted by a few ALS informants for Style D, but never in Style A. There is therefore only one center phoneme, /ʌh/.

Does the phoneme /æh/ occur in casual speech? In Figure 18 of Chapter VIII, four Jewish informants were shown with (eh)-40 in Style A. These speakers use only (eh-4), level with the vowel of bat, but longer. If /æh/ is distinct

II-21

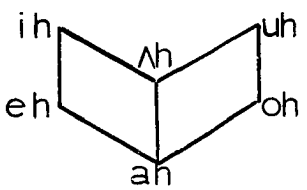
from /æ/, it is separated from it only by length. There is no other pair in the vowel system distinguished only be length, and in this case, it is extremely difficult to show that there is a length difference independent of phonetic environment.[21] It appears that there is only one phoneme for these four speakers: /æ/.

There are twelve speakers grouped around (eh)-35, and a larger number around (eh)-30 and (eh)-25. For most of these, [excluding Negro respondents], the argument given above on /ae/ and /æh/ applies since they use an alternation of two forms: (eh-2) and (eh-4), which are assigned to /eh/ and /æ/ respectively. The only ones who might show an /aeh/ phoneme are those who use (eh-3), which differs from both /æ/ and /eh/ by both length and height. However, the only respondents who might show an /æh/ phoneme are those who do not have a well-established system of ingliding phonemes. These are a small number of younger upper middle class speakers who use a considerable amount of (r-1) in their casual speech. For them, the ingliding phonemes are reduced to allophones of the short vowels, as we shall see below, and (eh-3) must find a place in the short vowel system, if anywhere.

The actual system of ingliding phonemes characteristic of most ALS respondents has then only one low vowel, /ah/, three mid vowels, /eh, ʌh, oh/, and two high vowels, /ih, uh/. What type of structure can be shown for this set?

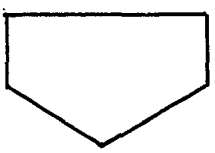
In the first part of this chapter, the parallel position of /eh/ and /oh/ was established. The structural representation must have these phonemes opposite one another; above

XII-22 /eh/, /ih/ can be placed, and above /oh/, /uh/. The low vowel, /ah/, varies in phonetic position from center to back: it may therefore be placed in the center [since it contrasts with no other low vowel], and above it, /ʌh/. These two center vowels do not contrast with the others in so far as height is concerned, and no parallel positions have been established: /ah/ is therefore placed lower than /eh/ or /oh/, and /ʌh/ in the center as indicated below:



(3)

In Chapter X, it was shown that only about one-third of the respondents used /ʌh/; for those who do not, a pentagonal pattern may be shown, as in Model (4).



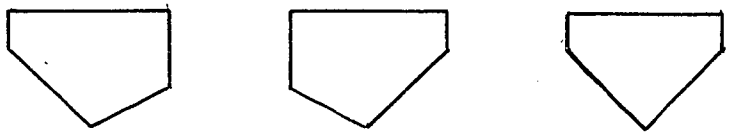
(4)

In general, the phoneme /ʌh/ does not occur frequently except in the words her and were, and as noted, it shows signs of social stigmatization there. In most of the discussion to follow, the pentagonal model will be used, since it represents the majority of the respondents who use [hɚ] and [wɚ] most of the time.

XII-23 Empirical verification of the ingliding system

The pentagonal figure given above is still a fairly abstract representation, since the position of /ah/ would seem to be arbitrarily assigned. Only the parallel positions of /eh/ and /oh/ have been empirically determined so far. We will now proceed to show empirical evidence for each of the relationships in the pentagon.

There are some speakers in the community who use relatively high vowels for /oh/. Others use relatively high vowels for /eh/. A third group uses high vowels for both. Abstract representation of these quantitative relations within the pentagon may be shown as follows:



(5) (6) (7)

If there is an internal economy of phonological space, which tends towards equal spacing of the phonemic units, then the loss of symmetry shown for the two left cases should produce a tendency towards a shift in the position of /ah/:

(8) (9)

This possibility can be investigated from a structural point of view by data taken from the minimal pairs test and the

reading of the standard text. There is no evidence that the interior structure of the phoneme /ah/ is sensitive to the difference between Style A and Style D, except in so far as the occurrence of (r-1) is concerned. Since there is no social or stylistic variation associated with the (r-0) forms of such /ah/ words as guard and god, dock and dark, this information can be correlated with any other style.

The structure of the /ah/ phoneme in the ingliding system, with (r-0), involves the following word classes:

	without historical /r/	with historical /r/
ending in voiceless consonant	dock, pot, etc.	dark, part, etc.
ending in voiced consonant	god, pod, etc.	guard, barred, etc.

There are several possible distributions in these word classes of the short phoneme /a/ and the long phoneme/ah/. In the following discussion of these possibilities, the habits of the informant will be identified from any evidence which is not obscured by the intrusion of (r-1). If the respondent used all (r-1) in Style D, his r-less version of Style C may be used. There are 53 respondents [out of 84 white ALS New York City informants] for whom the evidence on the internal structure of the phoneme /ah/ was not obscured by the intrusion of (r-1) in formal styles.

A variance analysis of the Linguistic Atlas records for New York City, carried out by Thomas Wetmore,[22] shows a distribution of the word groups given above which is similar

in many ways to the distribution we find today. Words such as barn [or guard] occur with a speech sound which is both longer and further back than the one used in words such as crop or pot. The word class of god is intermediate in both respects, but overlaps the class of crop more than that of barn. [The class of dark is not shown in his records, but presumably follows that of barn.] The principal difference in the distribution in our records is that the word class of god now is found with the long, low back vowel which was previously used only for words of the class that contained historical /r/.

Almost all respondents distinguished dock from dark as [dɑk] vs. [dɒ:k]. Only four of the 53 did not do so: three used length only to distinguish these words, and one identified them as the same. There is therefore a phonemic contrast of /a/ vs. /ah/, supported by differences in position as well as length. Just as in the Atlas records, it is the disposition of god in relation to guard which shows variability in the population. While the Atlas analysts disregard the cases in which god is identified with guard, we recognize this variability as an essential part of the structure being studied.

There are three options used by our informants for the relations between god and guard. In the first, both word classes occur with the back position of /ah/, as [gɒ:d]. In the second, god is opposed to guard, as [gɑ·d] vs. [gɒ:d]. In this case, god belongs with dock and got in the /a/ allo-

phone, showing only a slight increase in length typical of forms terminating in voiced consonants. In the third case, god and guard are again identified, but with a central vowel only slightly further back than that used in dock, and either half long or long: [gɑ·d]. The two word classes are again found with a phoneme /ah/, but the phoneme as a whole is in a position much closer to the center than that found in options I and II. We can summarize these three options as:

	center	back
I	-	god, guard
II	god	guard
III	god, guard	-

The distribution of these three options can be used to verify the existence of structural relations between /ah/ and the mid vowels. If the pentagonal structures drawn above are not mere paper manipulations, we should find that high (oh) vowels are associated with Option I, and low (oh) vowels with Option III. Option II should be intermediate in this respect. The following table confirms this prediction, for (oh) in Style A:

TABLE 3

CO-VARIATION OF (oh) INDEXES AND /ah/ OPTIONS

Option	Average (oh)	N:
I	17	14
I/II, III	18	5
II	24	14
III	25	10

It appears that a back position of /ah/ word classes is associated with high (oh) vowels [corresponding to low (oh) indexes]. The second line of the table shows those cases in which an oscillation was shown between Option I and other options. Options II and III show considerably lower (oh) vowels associated with them. Similar relations between /ah/ and (oh) may be shown in Style D.[23]

The existence of the pentagonal structure is thus strongly supported by this evidence. The relationship between /ah/ and (oh) is more than an opposition of contiguous units in the vowel quadrangle, but is a dynamic connection in which the movement of one element is correlated with the other.[24]

Since (oh) indexes follow social variation for both class and ethnic groups, it would seem that /ah/ might do the same. This possibility runs counter to the claim just made that /ah/ is independent of stylistic context, since stylistic and social variation are usually interwoven. The possibility of extensive social variation in /ah/ must therefore be examined more closely. Table 4 shows the distribution of the three options for class groups, age levels, ethnic group, and sex. In evaluating Table 4, the principal issue is the relation of Option I to the other two options. There are very few differences of any sort which would point to significant social variation of /ah/. Social class shows little variation; age levels are similar; men and women are remarkably similar in their use of /ah/ options. All these

XII-28

TABLE 4

PERCENTAGE DISTRIBUTION OF /ah/ OPTIONS

BY SEC, AGE, ETHNIC GROUP AND SEX

		SEC				Age		Ethnic Group			Sex	
Option	Total	0-1	2-5	6-8	9	20-39	40-	J	I	N	M	W
I	36	37	33	36	43	32	42	58	07	50	38	34
I/II, III	16	25	16	9	14	20	8	9	25	10	14	17
II	38	13	47	46	43	40	38	25	52	20	38	38
III	10	25	4	9	14	8	12	9	16	20	9	10
	100	100	100	100	100	100	100	100	100	100	100	100
N:	53	8	25	12	8	26	27	24	12	10	21	32

indications point to a variable which may be structurally significant in the phonemic system, but has no social significance. Only ethnic groups show a difference in /ah/ options, and these differences are very striking.

Jews show a larger use of Option I than the rest of the population. Italians show practically no Option I, and rely primarily on Option II. Negroes use mostly Option I, but show a fairly large use of Option III. This relationship is exactly the distribution we would expect from the connection already established between /ah/ and (oh). However, it opens the possibility that the structural relations do not exist directly between the linguistic units, but are simply a result of the fact that Jews use both high (oh) and back /ah/. We would like to show that the structural relation exists directly between the phonological units, and is <u>not</u> mediated by any social relationship. If the connection between (oh) and /ah/ is dependent purely on the fact that Jews have high

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(oh) and back /ah/, the connection will disappear when we consider Jews alone. Table 5 shows the results of such an analysis.

TABLE 5

CO-VARIATION OF (oh) and /ah/ OPTIONS FOR JEWS AND OTHERS IN STYLE A

Jews			Others		
Option	(oh) average	N	Option	(oh) average	N
I	17	13	I	[24]	1
I/II, III	17	2	I/II, III	20	3
II	21	6	II	23	8
III	28	3	III	24	7
		24			19

Table 5 demonstrates that the connection between (oh) and /ah/ is quite independent of the Jewish-Italian opposition, or as shown here, between the Jewish group and the rest of the population. Even within the Jewish group, the connection holds, and is in fact stronger than for the population as a whole. The other respondents show the (oh)-/ah/ connection, though not as clearly as the Jews.

It follows that /ah/ is essentially independent of both social and stylistic distribution, since Table 5 shows that the only sign of a social difference in /ah/ is a minor effect in the basic pattern of /ah/ options. We can see in the distribution of the /ah/ options a purely internal product of the highly structured relationships inside the phonological system.[25]

There is no similar tight connection between (eh) and /ah/. The /ah/ options correlate with the four (oh) rows of Figure 1 but not with the five (eh) columns. As we will show, /ah/ follows the pattern of (ay) rather than (aw), and this reinforcement is essential in strengthening the structure of the ingliding system.

Merger of /ih/ and /eh/, /uh/ and /oh/

The respondents who are shown in Figure 1 with (oh) values higher than (oh)-19, show an overlapping distribution of /oh/ and /uh/. For most of these respondents, particularly those at the very top of Figure 1, variance analysis shows that /oh/ and /uh/ are merged in casual speech. This is most certain for those ten respondents with (oh)-14 or lower.

In the speech of eight respondents to be found in (eh) Column I, the same considerations indicate a merger of /ih/ and /eh/. For example, variance analysis of a 34-year old Italian woman's speech shows the following overlap:

/ih/		/eh/		
		(eh-1)	(eh-2)	(eh-3)
years	[jɪ˙z]		[jɛ˙˩z]	
here		[he˙˥]		
hair		[he˙˥]		
there		[ðe˙˦] [ðe˙]	[ðɛ^{ə}]	
yeah		[je^{ə}]		
man		[me˩^{ə}n]		
fashion		[fe˩^{ə}šən]		

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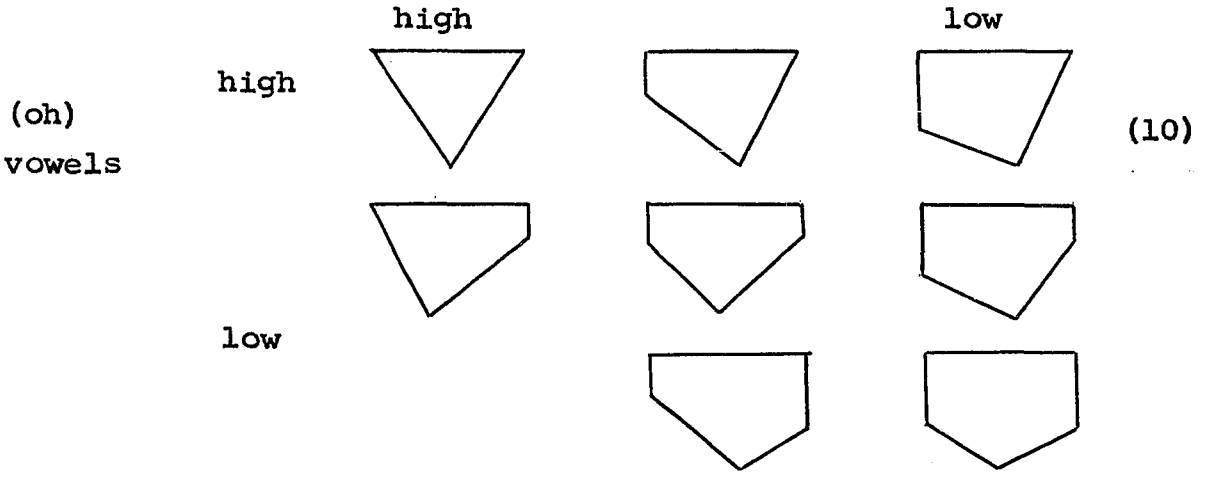
When the phrase girl's hair-cut is isolated on the tape, and presented as girl's hair, it will sound like girls here to most people. The merger of /ih/ and /eh/ in this speaker is accompanied by a corresponding overlap of /uh/ and /oh/, with (oh-1) values that are clearly in the [ʊ] category. Correlated with these are Option I for /ah/, (ay-4) and (aw-3).[26]

The merger of the high and mid vowels is an unexpected finding of the ALS survey. Nowhere in the writings of Frank, Hubbell, or Bronstein do we find any mention of such a merger. It may be that the development is so new that it did not exist at the time these reports were written. It is also possible that reliance on more formal styles did not allow the merger to appear. However, even in Style D the identity of high and mid ingliding vowels is reported by many informants.[27]

There also are a number of speakers in (oh) level b who show a merger of /oh/ with lowered forms of /uh/. Only a few /uh/ forms occur in casual speech, and for such a small number, it is difficult to say if we are merely witnessing a change of incidence [poor, you're, sure being used with /oh/] or the complete merger of phonemes distinct for other speakers. Similarly, there are speakers in (eh) Column II who use low forms of here and beer [usually as a centralized monophthong [bɛ:] which coincides with the (eh-2) vowels.[28]

Thus variance analysis demonstrates the following array:

(eh) vowels



(10)

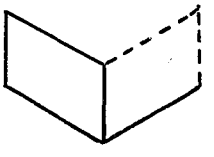
This array does not coincide exactly with the columns and rows of Figure 1. Values for the men are generally offset towards the left and bottom of the diagram. If we apply the array once against Figure 1 for women so that the triangular model matches cell Ia, and then again so that it matches IIb, for men, we obtain a fairly good representation of the vowel structures of the younger respondents.

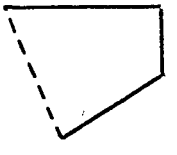
The up-gliding vowels

The list of up-gliding vowels given by Hubbell may be shown as follows:

front-gliding	back-gliding
/iy/ lead	/iw/ lewd /uw/ food
/ʌy/ bird	
/ey/ laid /oy/ Lloyd	/ow/ load
/ay/ lied	/aw/ loud

(11)





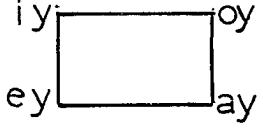
(12)

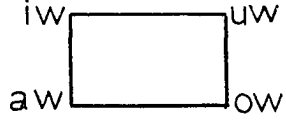
In this structure of front-gliding vowels, only one element is missing to match the regular structure of the ingliding phonemes. Such an element was never found;[29] for some working class and lower class speakers, /oy/ merged with /ʌy/, yielding parallel structures for the front-gliding and back-gliding type. When /ʌy/ disappears, a different kind of parallel between the two structures appears, which was developed further in the manner shown in Figures 2 and 3.

For the back-gliding vowels, the dotted line connecting /iw/ and /aw/ suggests the possibility of a relation similar to that between /ah/ and /oh/ in the ingliding system. Such a possibility was realized in the development of nucleus-glide differentiation of /aw/ and /ay/, as shown below.

Both /ay/ and /aw/ show nucleus-glide differentiation for many respondents. We now see that this cover term is more than a useful substitute for the expression "fronting and backing." The movement of the bottom elements of the structure shown above produces symmetrical structures:

(13)





(14)

We can posit a general upward compression of phonological space which has led to this result. In the ingliding vowel system, the compression takes the form of a raising of /eh/ and /oh/ followed by a shift of /ah/ to a low back position. For the up-gliding phonemes, the general upward contraction moves /aw/ up and front, while /ay/ and /oy/ move together to

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the same positions now held by /ah/ and /oh/. Thus we see that a general contraction of phonological space can cause radically different results in each sub-system, as the internal economy of the sub-system dictates. The holes in the patterns of the up-gliding systems lead to the contrary and corresponding movements of the two low vowels /ay/ and /aw/. Figure 2 shows us that just to the extent that /ay/ moves back, so /aw/ moves forward.

To prove empirically that the movements of the three sub-systems are part of the same over-all process, we must now establish a co-variation between (eh) and (oh), on the one hand, and (ay) and (aw) on the other. To do this, we first take the four quadrangles of Figure 1 in which (eh) and (oh) have approximately the same position: Ia, IIb, IIIc, and IVd. The 31 speakers in these quadrangles show the steady parallel movement of (eh) and (oh) vowels. If we now plot these quadrangles on a co-variation graph of average (ay) and (aw) values, we obtain Figure 4.

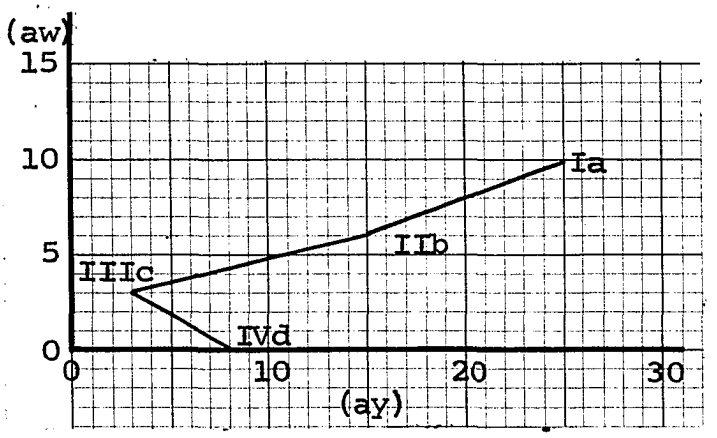

Figure 4
Co-variation of (ay) and (aw) for equivalent (eh)-(oh) groups

:II-35

The lowest quadrangle, IVd, shows a deviation from the expected correlation for (ay), but with this exception, there is a regular progression of (ay) and (aw) values correlated with each other and with (eh) and (oh). The values of (ay) and (aw) for the entire field of (eh) and (oh) are shown in Table 6.

TABLE 6

CO-VARIATION OF (ay) AND (aw) WITH (eh) AND (oh)

(ay) values

[oh]	(eh) I	II	III	IV	V
a	25	25	18		
b	[30]	15	10	14	20
c		10	3		
d				8	13

(aw) values

	(eh) I	II	III	IV	V
a	10	10	13		
b	11	06	11	14	07
c		05	03		
d				00	00

Table 6 shows fairly regular correlation between (ay) and the two variables (eh) and (oh). Column V does not fit the structure, but with this exception, there is only one deviation from a regular progression of (ay) values with respect to (eh), and one in respect to (oh). However, the figures for (aw) values do not show a good correlation, except for the equal value cells Ia, IIb, IIIc, IVd. In this situation, we can see the effect of corrected (eh-2) in the large number of Jewish speakers in the shaded quadrangles IIa, IIIab, IVabc. Apparently the correction has become so deeply ingrained that these speakers use a great deal of (eh-4) in casual speech.

While the parallel development of (eh) and (oh) is disturbed by this development the parallel development of (ay) and (aw) is not. The latter variables have not yet become the subject of social correction. It is characteristic of changes imposed from above that they do not apply generally, to all of phonological space, but sporadically, and so disturb only parts of a phonological system. While New Yorkers are correcting one result of the general compression of phonological space, they are continuing to participate in other changes which will no doubt be subjected to correction at a later stage.

Vowel systems in formal styles

The systematic study of vowel systems in New York City must consider at least two distinct structures: one for casual speech, approximating the native speech pattern acquired in early years, and one for the most formal utterances, which approximate the subjective norms of the speaker in so far as he has attained some degree of motor control over them.[30]

The set of vowel phonemes which are derived from contrastive analysis of formal style do not form the same type of tightly integrated structure as that derived from variance analysis of casual speech. The direction and apparent goals of stylistic shifts may be uniform, but the degree of success in attaining these goals is irregular. The intermediate styles, careful speech and reading style, show intermediate stages of this style shift, with even less evidence of dis-

:II-37 crete clustering of speech sounds. [Figures 18, 19, 20, and 21 give this comparison in graphic form, in Chapter VII.]

The formal structure of /r/-usage may be studied by examining three minimal pairs in Style D': dock vs. dark, god vs. guard, source vs. sauce.[31] Table 7 shows the percentages of New York informants who used (r-1) to distinguish all three pairs, one or two pairs, or none of the pairs, according to class, age, ethnic group and sex.

TABLE 7

USE OF /r/ TO DISTINGUISH MINIMAL PAIRS IN STYLE D'

		SEC				Age		Ethnic Group			Sex	
	Total	0-1	2-5	6-8	9	20-39	40-	J	I	N	M	W
% All /r/	33	00	25	52	43	32	32	34	30	10	29	33
% Some /r/	33	67	25	37	33	32	37	39	24	30	22	40
% No /r/	34	33	50	11	25	36	32	27	47	60	50	27
	100	100	100	100	100	100	100	100	100	100	100	100
N:	74	6	36	19	12	28	41	38	17	10	29	45

Table 7 shows that the population falls into equal thirds as a whole by the category of use of /r/. As we have seen, no New Yorker is perfectly consistent in the use of /r/.[32] Table 7 repeats the end-point of stylistic and social variation which we have seen in Chapters VII and VIII. It shows us the futility of attempting to use contrastive analysis to isolate phonemic systems in such a complex environment as New York. Instead of the sharp, phonemic stratification of /r/ vs. no /r/ which we would like to see, there is the usual fine-grained stratification of (r). For those variables which are subject to social pressure from above, the minimal pairs used

in Style D will simply reflect the degree of the informant's recognition of these norms and his ability to meet them.

This limitation of minimal pairs applies to attempts to determine the status of /eh/ as well. The minimal pair [tin] _can_ vs. [I] _can_ was used in the questionnaire, but the results showed little relation to the native speech pattern of most respondents. Instead, we obtained a repetition of the informants' preference for (eh-4) in formal styles. It was even difficult to determine whether /æh/ was distinct from /ae/, since the effect of the identical spelling of the two forms tended to make informants equalize any small differences that might actually be used in formal speech. The best indication of the status of /æh/ could be found in the reading of the word list. The [eh-4] in this list was usually quite long for _bag_, quite short for _back_. The phonemic status of /aeh/ thus depends upon the unpredictability of the long form in words ending in voiced fricatives [such as _jazz_, _razz_], and in polysyllables.

There are several areas in the phonemic system which can be illuminated by the use of contrastive analysis. One of these is the merger of _beer_ and _bear_ among working class and lower class respondents. Minimal pairs for these variables were inserted into the survey only at a late stage, but the results which have accumulated so far have confirmed the view of phonemic merger presented above. Since low /ih/ and /uh/ have not become the objects of social correction, it is possible to use contrastive analysis to determine merger for men

who tend to use the lower form of the combined phoneme.[33]

A second area for effective contrastive analysis is the distinction between /iw/ and /uw/, as in dew and do, yew and you, cartoon and soon. Some New Yorkers make this distinction regularly; others use a semi-vowel for dew in Style D, as /dyu/ vs. /duw/; still others use /diw/ for both do and dew [in which the first element of the diphthong is an intermediate form, semi-rounded, semi-fronted.] However, almost all New Yorkers agree that one can say "I do," as either /ay diw/ or /ay duw/, but that one cannot say /duw/ for "dew on the grass." The latter form makes most New Yorkers laugh, because the form /duw/ can only be do, which in this context means excrement. Thus we have:

	do	dew
/uw/	yes	no
/iw/	yes	yes

In other words, the word class which permits /iw/ is only a subset of the word class which permits /uw/. Despite this limitation in contrast, /iw/ must be considered a phoneme for most New Yorkers, on the basis of the irreducible contrast which does exist.

Despite the fact that some parts of the vowel system can be investigated successfully by contrastive analysis, it is not possible to show a coherent structure for casual or formal speech styles through this method. For those phonemes which are not involved in socially significant variation, contrastive analysis will show discrete structure: for those

40
II

which are involved in a regular pattern of social and stylistic variation, the use of minimal pairs will only repeat one section of the variable structures shown in Chapters VII-IX. It is necessary to find some measure of formal behavior in which large groups of New Yorkers will agree, and thus show discrete structures comparable to those of casual speech.

The structure of stylistic patterns

A more satisfactory approach to the formal structure of New York City English is to study the patterns of stylistic variation which the informants follow. Table 8 summarizes the information on stylistic variation by showing the percentages of individuals who follow patterns in a given direction. This table has no relation to absolute values of the variables, but only to the relations between contextual styles.

TABLE 8

PERCENTAGE OF RESPONDENTS FOLLOWING PATTERNS OF STYLISTIC VARIATION FOR (eh), (oh), AND (r)

Variable pattern	Total	SEC 0-2	SEC 3-5	SEC 6-8	SEC 9	Age 20-39	Age 40-	Ethnic group J	Ethnic group I	Ethnic group N	Sex M	Sex W
(r-0)→(r-1)	75	50	76	100	70	70	77	76	70	84	64	82
(eh-2)→(eh-4)	83	75	87	85	80	100	77	78	100	33	85	83
(oh-2)→(oh-4)	65	53	59	77	80	84	58	68	56	33	65	67

In the figures shown for Table 8, the Negro group is not included in any percentages except that for the Negro ethnic

XII-41

group. The first line shows the percentage of those who follow the pattern of stylistic variation from less (r-1) to more (r-1) with increasingly formal styles. There is only one point where the population deviates from the general high level of agreement on this point: the lower middle class shows 100%[34] while the lower class shows only 50%. In the case of (eh), an even higher percentage of respondents favor a shift from high to low vowels for this variable. There are three points at which the 75-85% level of consistency varies: the younger speakers show complete consistency; the Italians, who show the highest values in casual speech, are also completely consistent in their stylistic shift; and the Negroes show a very low level of participation in this stylistic pattern.

The fact that the Negro group shows only 33% following the pattern of (eh) variation does not mean that a majority of these respondents follow the reverse pattern. Only one of the twelve Negro informants could be said to reverse the (eh) pattern; the balance showed no variation, or an irregularly fluctuating pattern. This applies equally to other groups and other variants: only a very few respondents show a pattern which reverses the one shown in Table 8.

Finally, we see that the (oh) variable shows a somewhat lower level of consistency in stylistic variation. As we would expect, the lower class shows the least consistency, and the middle class the most. The fact that younger speakers show much more tendency to follow this pattern is consistent with the hypothesis that social correction of (oh) has begun

only recently. Finally, we see that the Negroes show no participation in this pattern, the Italians a moderate amount, and the Jews the most. Once again, a pattern is followed in which the highest exponent of a stigmatized form shows the greatest correction.

Thus Table 8 sums up most of the trends that have been studied before, but indicates the very high regularity of behavior in formal styles in a way that the minimal pairs of contrastive analysis cannot show.

Third-order vowel structures

We may now use our knowledge of the New York City speech community, as summarized in Table 8, to develop the second-order vowel structures by repetition along other linear scales. The third order vowel structure for stylistic variation is shown as Figure 5. Only the ingliding phonemes are shown here, since the up-gliding phonemes are not sensitive to stylistic variation.

The upper part of Figure 5 shows two second-order structures used by New Yorkers in less formal situations. The highest is the simplest pattern, with merged high and mid ingliding vowels. This is the system used by many younger informants, and by a great many middle-aged informants as well, in the most informal contexts. Thus the highest plane is related to the one underneath it by a development in apparent time, as well as a relation on the axis of stylistic variation. The lower part of the diagram indicates the direction of change in the more formal contexts, as indicated by the heavy

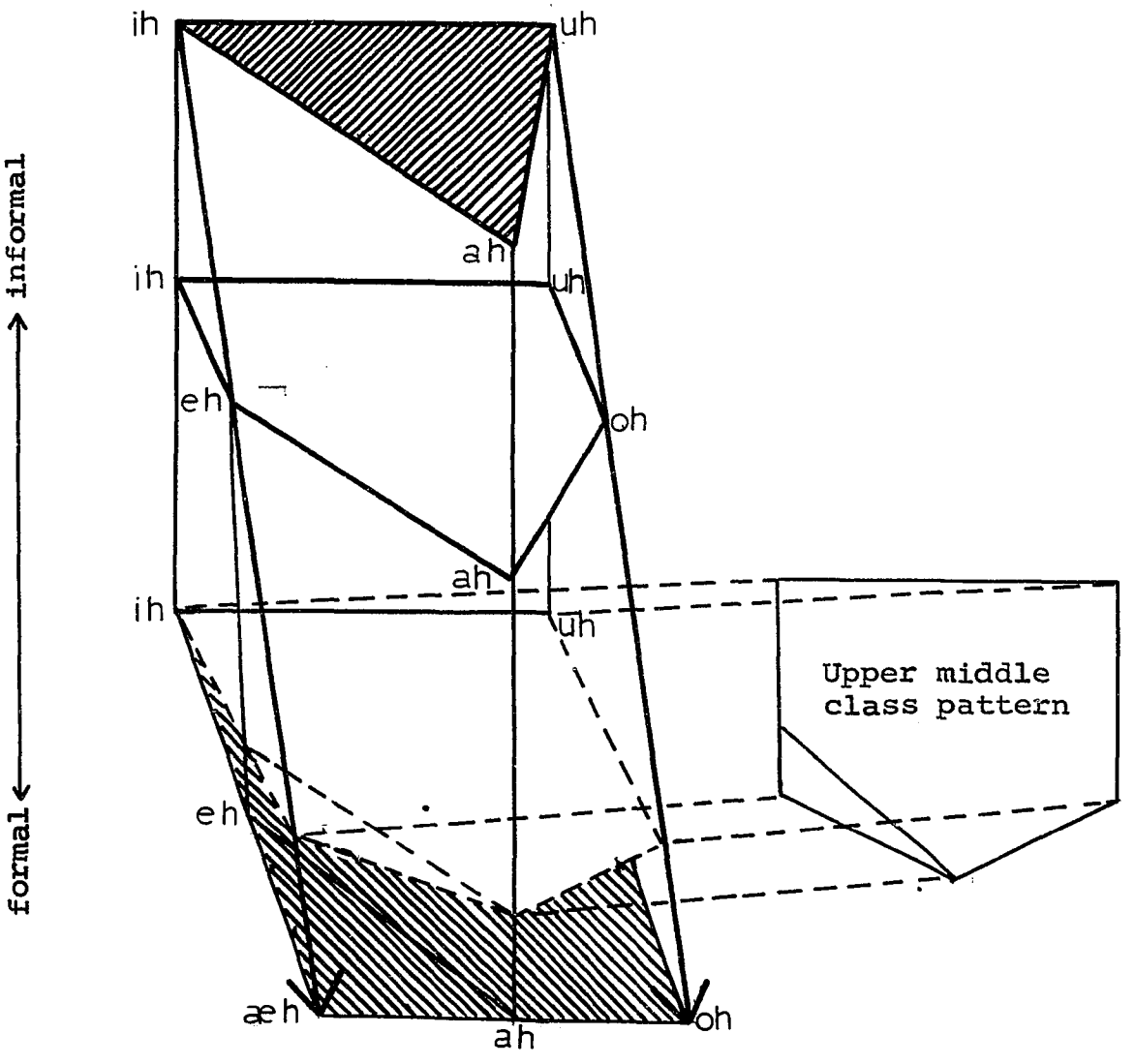

Figure 5

Third-order structure of New York City vowel system: stylistic variation

arrows leading from /ih/ to /eh/ to /æh/, and from /uh/ to /oh/ to lower form of /oh/. The structure used in formal contexts is shown as a hypercorrect form of the prestige pattern, based primarily upon upper middle class usage. This prestige pattern is shown with an /æh/ phoneme at the position of (eh-3). It is true that there are some upper middle class informants in our sample who use a low /æ h/ at (eh-4), and a similar form may be heard on radio and television. However, the most common form of upper middle class [and upper class] speech as shown in Hubbell's records, and our own, is (eh-3). Similarly, the upper middle class /oh/ is fairly stable at (oh-3).

The lower section of Figure 5 indicates that the direction of stylistic variation followed by New Yorkers frequently carries them beyond the level of the prestige pattern, to the form shown as the lowest plane. This represents the very low, tense, fronted form of /æeh/, and the more or less irregular mixture of (oh-3) and (oh-5), which have been observed in Style D for (eh) and (oh) in Chapters VII and VIII. It should be noted that Figure 5 reflects the organization of the ingliding phonemes without considering the radical alteration in their status which is introduced through a frequent use of (r-1). Only for class 9 has the effect of r-pronunciation penetrated so deeply into the structure of the vowels that the system of phonemes shown here been seriously weakened.

From Table 8, we can see that 65 to 83 per cent of the informants participate in this structure as they adjust their speech to more or less formal styles. Not everyone uses the

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entire range of variation: some never rise past the middle level, and others go little below that. A larger number follow the straight line that connects (eh-1) with (eh-4) than those that follow the line from (oh-1) to (oh-5). Women use a larger range of this structure than men.

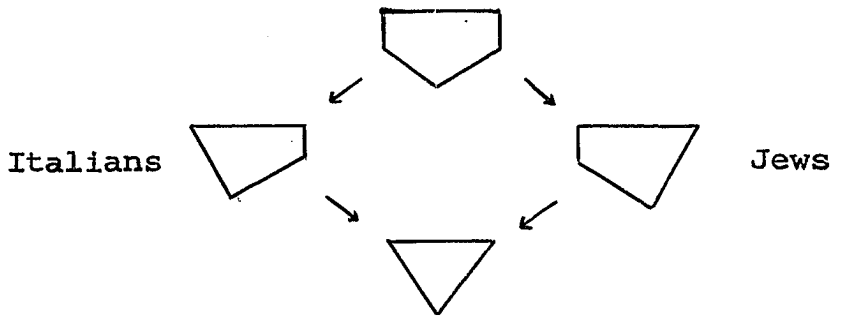
The odd shape of the most formal plane indicates the relative lack of stability in this part of the structure. The stringent phonological economy which dominates the linguistic developments on the most informal plane does not operate on the most formal level, where the maximum degree of conscious attention is given to language. The weak position of /æh/ in the lower left has been noted. The odd mixture of long and short allophones which makes up the /oh/ phoneme in the lower right is another example of the instability of the formal plane. The most highly structured aspects of Figure 5 are

[1] the plane of casual speech

[2] the <u>direction</u> of shift of objective speech patterns as shown in Table 8 and the vertical axes of Figure 5.

The plane of casual speech is determined for each individual not by the highest plane shown here, but by the vertical position on the structure of Figure 5 which an individual assumes in his casual speech. Younger speakers from the central groups assume the highest position; the oldest speakers are found at a relatively low position, near the center, in the structure of their casual speech. Obviously a single diagram such as Figure 5 is too general to allow us to place most individuals on it with any degree of predictability.

Structural relations of ethnic groups. The relations of Jews and Italians can best be seen as an aspect of the development of the native speech pattern in real time.



The parallel asymmetry of the Jewish and Italian ingliding vowel systems has begun to disappear for the youngest speakers, as indicated by the merger into the triangular structure at the bottom.

Fourth-order structures: class stratification of the New York City vowel system

The third-order structure of stylistic variation shown in Figure 5 is of course not generally uniform for all classes. It is repeated for each class in progressively different forms. Since the class structure of New York City is now well established in our results as a linear set, we need not hesitate to refer to this recurrent pattern as a fourth-order structure.

It is not an equivalent structure. On the contrary, it displays the same patterns of class stratification which we have seen in the study of the individual variables. Figure 6 displays the fourth-order structure of the ingliding vowel systems, and the third-order structures of the upgliding vowel systems. Just as in Figure 5, a certain amount of

temporal development is built into this pattern, for the plane shown as the highest level of informality is actually the one used primarily by the younger informants; most informants over 40 do not show the mergers of mid and high vowels indicated on this plane.

In Figure 6, the structure of New York City's vowel system is seen as forming three distinct sub-types, as determined by the plane of casual speech. The lower class shows a lowered system of ingliding vowels, with the high vowels merging with the mid vowels in mid position. The difference between this triangular structure, and that shown for the central groups, is not merely a phonetic fact, since the mid position of /oh/ is reflected in the low position of /oy/ [and /ay/] in the upgliding system.

Both the working class and the lower middle class show a general tendency towards a raising of the mid vowels in casual speech. Although only a minority of the speakers may actually show a complete merger, this structural diagram indicates the general direction of stylistic and temporal variation in which the systems seem to be moving. The only structural difference shown here between the working class and the lower middle class is the low position of /oh/ for the lower middle class in most formal style. The mixture of variants which occurs in this position undoubtedly contains elements which most properly belong with the short vowels, and others which belong with the ingliding vowels.

In Figure 5, the relations of the upper middle class

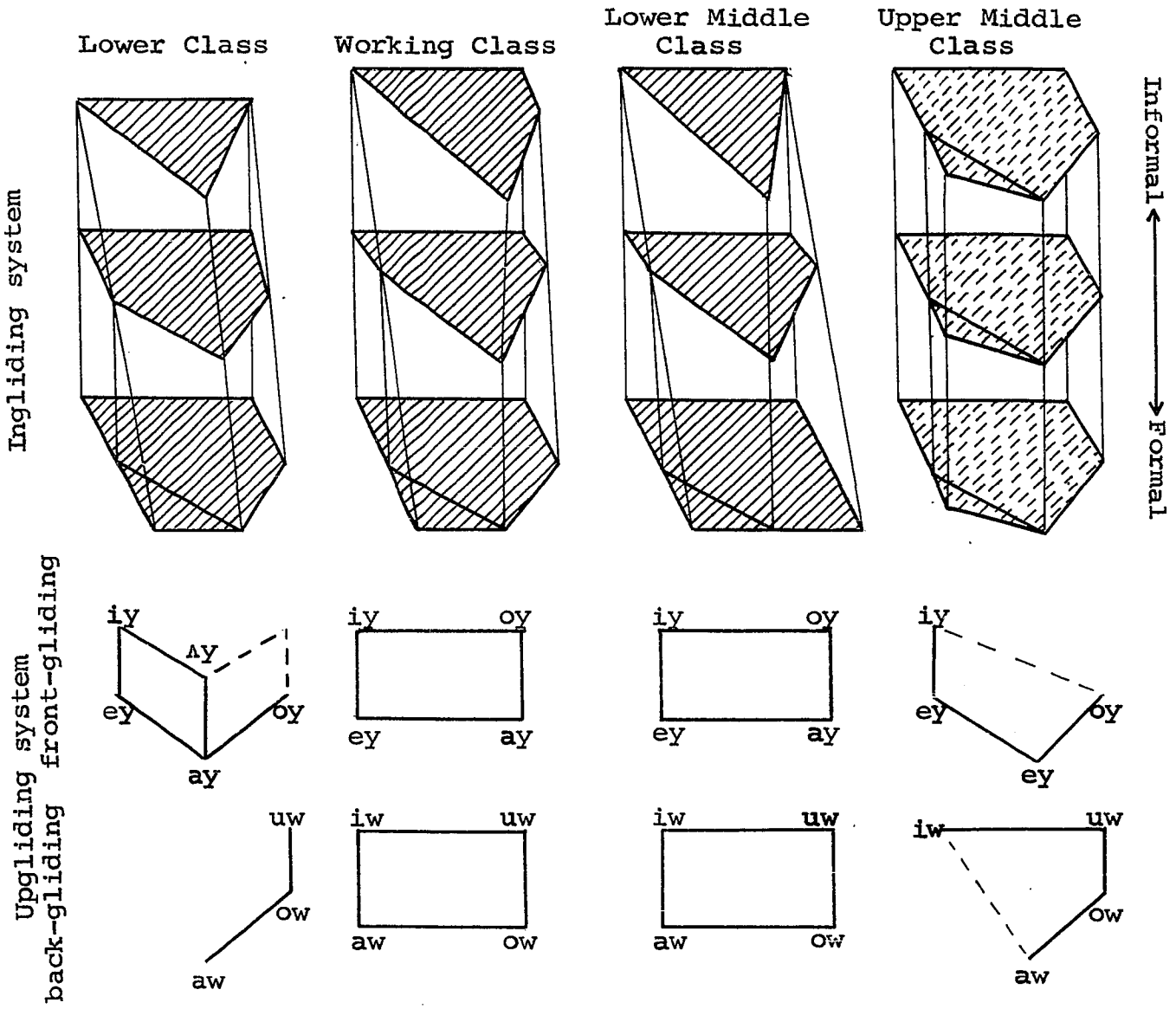


Figure 6

Fourth-order structure of New York City vowel system: stylistic variation for four class groups

prestige pattern to the speech of most New Yorkers were indicated by projecting its outlines onto the formal plane of speech. In Figure 6, the upper middle class pattern is shown as only one of four patterns; the relationship to the speech of other classes is the same as that shown in Figure 5, as may be seen by comparing the three and four lowest planes in Figure 6.

The upper middle class is shown without any structural changes in stylistic variation. The entire system of ingliding vowels, however, is shown in dotted lines since for most of the younger speakers, it has been reduced to a series of allophones of short vowels before /r/.

Figure 6 reflects generally the detailed style stratification diagrams for (eh) and (oh), Figures 18 and 20 of Chapter VII. If one traces the locus of the /eh/ phonemes in the twelve positions shown here, one will reproduce the general outlines of Figure 18, Chapter VII; similarly, the loci of /oh/ shown here reproduce the outline of Figure 20, Chapter VII.

The patterns for the upgliding phonemes show even more clearly that the two center classes represent the continued evolution of the traditional New York City vowel system. The lower class represents the closest approximation to the older system, with the beginnings of evolution in a contrary direction; and the upper middle class shows the reversal of the evolution of the traditional system as a result of social

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correction from above and the introduction of /r/.

The lower class retains the center upgliding phoneme /ʌy/ in this diagram. The low positions of /ay/ and /oy/ match the low positions of /ah/ and /oh/ in the ingliding system. On the other hand, the central classes show the tendency to regularize the upgliding systems, following the general direction of the raising of the mid vowels.

The outlines of the style stratification diagrams for (oh) and (eh) can be traced on Figure 6. Similarly, the outlines of class stratification diagrams can be traced in a fourth-order structure in which the usage of the various social classes are seen as horizontal levels in a third-order structure which is repeated for various styles. Figure 7 shows such a representation for Style A and for Style D. Here the axis of stylistic variation is shown as the relationship between the two structures, while the axis of social variation is represented by the contrast of the successive planes. The outlines of the class stratification diagrams for (eh) and (oh) may be traced in the left and right forward edges of the structure. The curvilinear pattern appears here as an inward bulge in casual speech, and an outward bulge in formal style.

Developments of the fourth-order structure in real time

The fourth-order structure shown in Figures 6 and 7 is of course the result of a long development in time, which

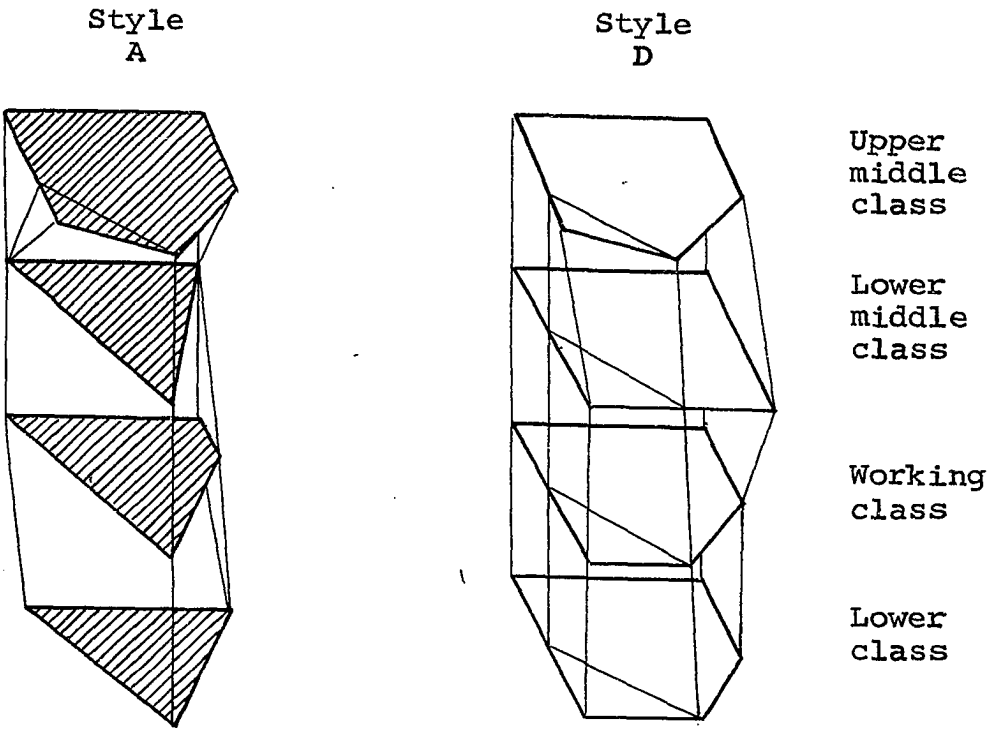

Figure 7

Fourth-order structure of New York City vowel system: social variation for two stylistic levels

in turn constitutes a fifth-order structure. However, we do not have the data to show the details of the entire development, and it would be quite speculative to attempt such a complex description. We can make some fairly well-founded statements about the order of the most important developments in the phonological system which have led to the present structure. The basis for most of this discussion is the interpretation of stratification in apparent time, as presented in Chapters IX and X. The records of the Linguistic Atlas and Hubbell's study are utilized as well, within the limitations set by the sampling methods used. The basis for the earliest stage of the casual speech pattern is provided by Babbitt, whose observations were made just prior to the time when the oldest ALS informants were growing up in the city. It was pointed out in Chapter II that Babbitt's general approach to the language of the city seemed to be more realistic than the other studies reviewed: he alone of the previous investigators listened to the speech of the general population, rather than a small minority.

I. Evolution of the pattern of casual speech. Figure 8 is a schematic representation of the development of the casual speech pattern which has led to the structure portrayed in Figures 6 and 7.

Stage 1. The four diagrams at the top of Figure 8 show the earliest system of vowels for which we have evidence. It is based primarily upon Babbitt's evidence, which on one

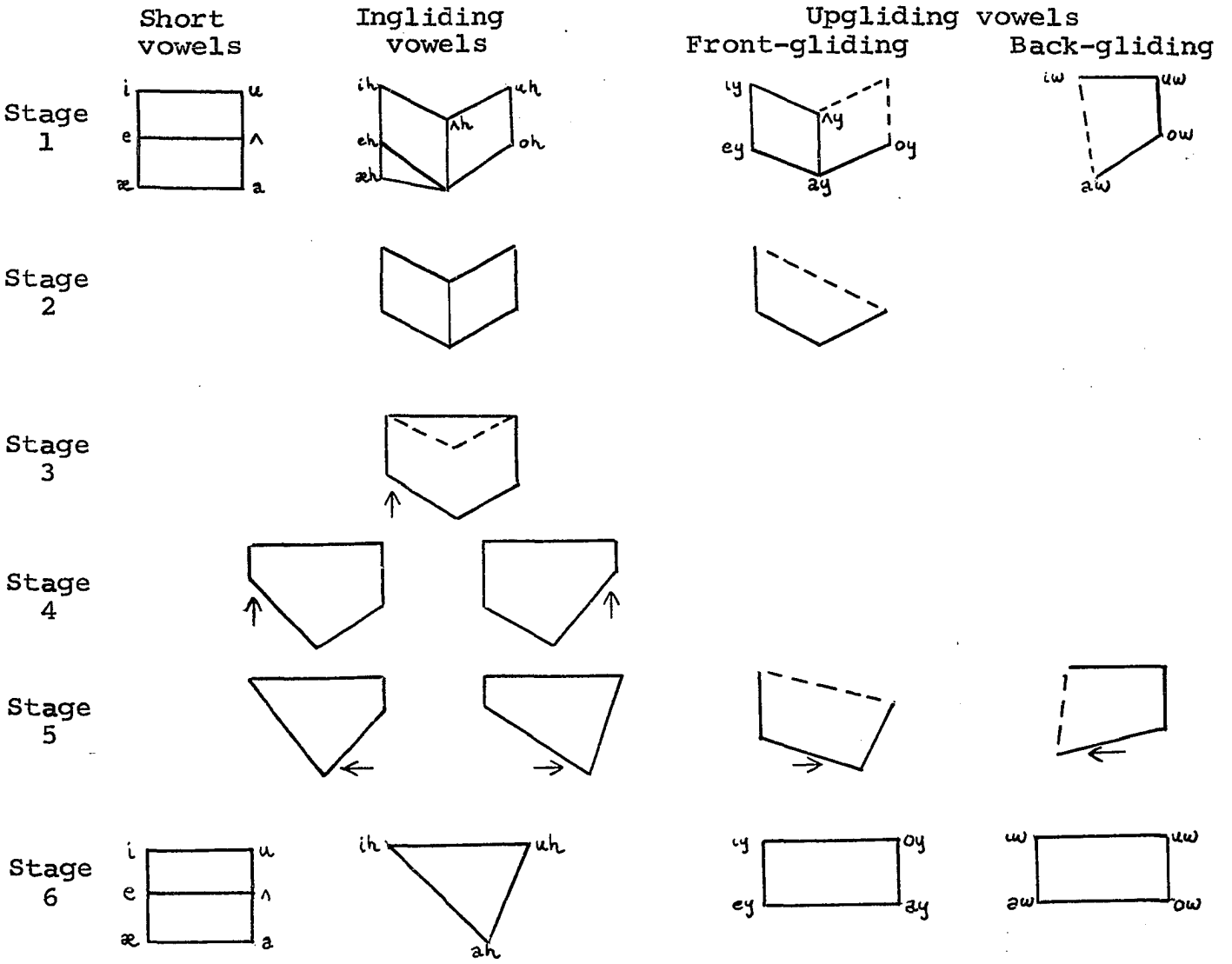

Figure 8

Stages in the evolution of the New York City vowel system in casual speech: working class and lower middle class

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important point, carries us back even further than 1896. In regard to /æh/, Babbitt writes:

> Among the older New Yorkers this very high vowel is used in all the set of words pronounced in New England with the broad vowel [ask, half, pass, etc.], and is really higher in these words than in man, cab, etc. But this distinction is now lost and the general vowel has quite overtaken the special one [hend, hand, keb, cab, dens, dance, helf past, half past].

For the earliest stage of New York City speech, Figure 8 therefore shows a vowel /æh/ in casual speech distinct from /eh/, and the first change noted is the raising of /æh/ to merge with /eh/. Babbitt had a sure instinct for the phonemic principle, which was often lacking in later investigators; he continually looks for evidence of contrast between words, rather than attempting to fix an absolute phonetic value.

On such firm evidence, we can be sure that the system shown in Stage 1 is r-less. Babbitt reports that father is homonymous with farther, lodge with large, God with guard, that four and war rhyme with law. Babbitt's evidence supports the analysis of the Linguistic Atlas, in that a glide /ə/ is reported only after [i, e, æ, u] but not after [ɑ, ɔ, ə]. In the case of [ɔ] Babbitt implies that a glide is sometimes heard, but not always, in which case war and four rhyme with law.

The evidence of Babbitt points to a comparatively low position for /oh/, lower than (oh-3): "The quality of the vowel [in or] tends . . . to be higher in many individuals than the o when not followed by r."

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Babbitt leaves the question of /ʌh/ somewhat in doubt. He does not mention the word class of her, were directly. He does take up the question of /ʌy/ in great detail, as quoted in Chapter IX, and in the course of his discussion, mentions that he used to illustrate the sound of French feuille by having a New York boy pronounce fir. Since every example given for /ʌy/ is a word in which historical /r/ is followed by a consonant [curtain, first, word, girl, world, incontrovertible, Stern] it is possible that Babbitt meant fir as the first part of first. In that case, all other indications point to /ʌh/ as the vowel in her, were, etc.

The evidence that Babbitt gives for /ʌy/ as the uniform New York City pronunciation in first, etc. is completely convincing. The entire front-gliding system seems to have been lower and more central than the present one, since Babbitt reports that /iy/ is not very high, that /ey/ begins low [and centralized], that the beginning of /ay/ varies from [ə] to [a] to [ɒ] and that /oy/ is very close to /ay/. In the back-gliding system, Babbitt reports a very firm position for /iw/: "iu . . . is the usual American iu [not ju], with stress on the first component."

Stage 2. The earliest change recorded is that noted by Babbitt: a continued raising of /eh/ so that man, cab are mid vowels, as well as ask, half, bath.

The stigmatization of /ʌy/ began quite early; Babbitt records the fact that the comic newspapers had ridiculed it as "the Bowery dialect" using the spelling "goil," "woild."

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The developments in apparent time as shown in our survey confirm the early date of the stigmatization of /ʌy/. The weakening of this element may have had repercussions in the ingliding system; if a corresponding diphthong /ʌh/ existed, its position was less secure as a result of the disappearance of /ʌy/.

Stage 3. The weakening of /ʌh/, indicated here by the use of dotted lines, is a process that is now continuing, and cannot be placed in any firm sequence with the other changes. However, it is not improbable that the disappearance of these phonemes in the speech of many people was a pre-condition for further raisings and mergers in the ingliding system.

Stage 4. The alternate use of high /eh/ and high /oh/ by Italians and Jews has been documented in this study in several places.

Stage 5. The result of continued raising of /eh/ and /oh/ is seen in a merger of /ih/ and /eh/ on the one hand, and /uh/ and /oh/ on the other. The internal economy of phonological space is then reflected in forces exerted upon the other members of the system; the lower member of the /eh/-/oh/ pair begins to move up, and the position of /ah/ shows a corresponding adjustment.

Similar forces operate upon the up-gliding vowels producing a nucleus-glide differentiation of /ay/ and /aw/ which contributes to the symmetry of the respective sub-systems.

Stage 6. This stage shows the vowel structure found in the speech of many younger members of the working class and

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lower middle class. Merger of both sets of high and mid vowels eliminates much of the contrast between Jews and Italians. In the extreme form shown here, complete symmetry is attained, but at the cost of considerable differentiation from the prestige pattern.

II. Reversal of the evolution of the system under social pressure from above. As a consequence of the developments described in the previous section, a whole set of retrograde movements in formal styles may be documented, responding to social correction from above.

a. The stigmatization of /ʌy/ was listed above as an important step in the evolution of the system; at the same time, it also represents one of the most powerful examples of the influence of social correction.

b. A social reaction against (eh-2) is shown in the speech of all but the oldest informants. Retrograde movement of (eh) coincides with the direction of imitation of the earlier prestige forms, aiming at (eh-5) of New England. Evidence has been cited from Thomas to indicate that (eh-5) in the careful speech of Jewish college students was common in 1932.

c. The introduction of /r/ into the New York City system as a dominant element in the prestige dialect may certainly be traced in the 1930's, but apparently made a great step forward in the years coinciding with World War II.[35] The chief consequences of this step are:

1. Reduction of the ingliding vowel system to the status of variants of the short vowels plus /r/.

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2. Reversal of the backing of /ay/, fronting of /aw/, backing of /ah/, raising of /eh/, raising of /oh/, and movement of all of these to more central positions.

3. Elimination of /ʌy/ entirely, and a rapid reduction in the frequency of /ʌh/. Thus the introduction of /r/ is apparently correlated with a reversal of every one of the changes shown under I above.

III. Deviation of the lower class. The view of New York City speech in Figures 6 and 7 indicated that lower class speech is not following the same tendencies seen in the main body of the working class and lower middle class. The most important developments that have been noted are the relatively low positions of /eh/ and /oh/; when a merger with /ih/ and /uh/ takes place, it is at a low mid position, rather than a high position such as [ɪ:ᵊ] or [ʊ:ᵊ]. This tendency coincides with the usage of many young Negro people who have not followed the Northern, New York pattern, but rather show relatively strong Southern influence in their speech. The implication of Negro influence is even stronger when we observe a tendency towards the fronting of /ay/ in white and Puerto Rican speakers, rather than a backing. This is a characteristic of Negro speech which is strongest where Southern influence is strongest.

The questions which are raised by this tendency cannot be explored fully within the compass of the present study. However, they do represent one of the main lines of further inquiry that are suggested by the findings of this study, and which may be successfully followed with the techniques developed here.

II-59 The mechanism of linguistic change

The evolution of the New York City vowel system, as outlined in the previous section, displays a wide variety of phonological shifts, and mergers. Many of the developments displayed here illustrate a strong tendency towards symmetry and the equalization of distances in phonological space. They give strong empirical confirmation to the theoretical analysis of linguistic change set forth by Martinet, in Économie des changements phonétiques. However, there is much more in the mechanism of linguistic change than pressures between phonemes as functional units of cognitive communication. In stage 3 of Figure 8, the system was quite symmetrical. No arguments for further symmetry, holes in the pattern, or front vs. back asymmetry, explain the continued raising of /eh/ in stage 4.

In the present study, we have documented the role of ethnic groups and social class groups in the type of development shown in stage 4 and beyond. In the absence of any reasonable "substratum" effect, the unconscious tendency of speakers to increase the measure of their identification with their immediate group may be stated as the probable mechanism of these changes. In the study of /ay/ and /aw/ on Martha's Vineyard, cited previously in the present work, it was found that continued hypercorrection of such linguistic tokens of group-identification was the mechanism for a change that lasted over several generations. So far in the present study, we have used the term hypercorrection to describe the lower middle class tendency to outdo the upper middle class in

the use of prestige features in formal styles. Hypercorrection can operate in a more general sense as the mechanism of change in response to pressures from below.

We have seen a great deal of evidence for the fact that linguistic behavior is highly normative, or goal-directed. The need for a target, a set of norms, is evident in the casual speech of our informants as well as their formal styles. In cognitive communication, such norms are provided by a stable set of functional units. But the units by means of which expressive and other non-cognitive functions of language are carried out, are not so discrete. In aiming at such targets, it is only natural that the speaker will go beyond them. Driven by the fear of not conforming, and the need to establish oneself as an authentic member of one's immediate group, the members of the speech community can gradually push these labile norms further and further in the direction that they first began to move. Pressures of this sort can be exerted on individual words; or upon entire phonemes; or most likely, series or orders of phonemes. Pressure can also be exerted upon the whole structure of phonological space, compressing it, expanding it, or altering its dimensions in a systematic way that affects the status of all phonemes.

Such pressures upon phonological space take place in the form of an articulatory gesture, or in less dynamic terms, a phonological posture. The developments on Martha's Vineyard revealed a general constriction of phonological space from all sides, producing a centralization of vowels in all

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sectors of the system. In New York City, the pressures upon phonological space cannot be expressed simply in terms of raising, backing, or fronting. There is also an element of rounding, lengthening, and lip-spreading, as seen in the cases of /oh/, /ah/, and /eh/. The over-all tendency may best be described as centrifugal, in which all of the dimensions of phonological space are expanded to their limits. Thus the merger of /ih/ and /eh/ does not represent a contraction of phonological space, but rather a tendency of the front ingliding vowels to reach the extreme position of the triangular pattern. Rounded vowels become more rounded, front vowels become more fronted, low back vowels come closer and closer to the extreme point of cardinal /ɒ/. From this viewpoint, we might say that the merger of /ih/ and /eh/ does not represent a contraction of phonological space, but rather a tendency of the front ingliding vowels to reach the extreme positions of the triangular pattern. Rounded vowels become more rounded, front vowels become more fronted, low back vowels come closer and closer to the extreme point of cardinal ɒ. Such pressures upon phonological space are exerted primarily by women rather than men, and some of the evidence given here indicates that women lead in the evolution of the New York City speech pattern for the two central classes.

If we continue the line of thinking suggested by this hypothesis, the deviation of the lower class from the main line of evolution may be seen as a reversal of this centrifugal movement, leading to a general lowering of the mid

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vowels and a centering of the low vowels. The quite different reversal represented by the introduction of /r/, on the part of upper middle class speakers, is clearly accompanied by a centripetal movement which is especially strong in vowels preceding strongly constricted (r). The parallel positions of the upper middle class and the lower class are then seen as two forms of a reversal of the centrifugal direction of the main line of evolution of the vowel system.

These speculations on the mechanism of linguistic change carry us as far as the nature of the data will permit, and perhaps a little farther. Our principal task has been to demonstrate a consistent and coherent structure for the New York City speech community. In this chapter, that task has been carried to its conclusion.

NOTES TO CHAPTER XII

[1]An extensive discussion of this question may be found in E. Nagel, The Structure of Science, (New York: Harcourt, Brace, 1961), pp. 324-335.

[2]Some of the procedures required to prove such a random distribution are given in the introduction to The Rand Corporation, A Million Random Digits with 100,000 Normal Deviates, (Glencoe, Ill.: The Free Press, 1955). This is the basis for the randomness of the random sampling procedures discussed in Chapter VI.

[3]This hypercorrect tendency was found in Jewish students from New York City at Cornell University by C. K. Thomas, "Jewish Dialect and New York Dialect," American Speech VII:321-326, 1932. Thomas reported many Jewish students using (eh-5) in land, man, bad.

[4]The structural patterns of Negro speakers are generally not included in the discussions of this chapter. In the case of (ay) and (aw), the values of all but one Negro respondent would not appear on the chart shown, since their use of fronted forms of (ay) [with the assimilation of the glide] would place them below the line set here as the zero line.

[5]See the glossary for a more detailed definition of the phoneme. The phrase word or word sequences is used here [and later abbreviated to word] in recognition of the fact that word is not a formally defined category, and we may often be in doubt as to whether a sequence such as Man O'War is one word or two or three. [Our doubt may be expressed as phonological oscillation.] There is no hesitation here in recognizing the existence of words and word boundaries in the course of a phonological analysis. We are dealing with the analysis of variations within a structure with well-determined outlines, and a fairly constant morphology. In this study, it will not be required that phonology must be completely determined before words or morpheme boundaries can be discussed. On the other hand, we will not dismiss a phonological contrast because it is correlated with [or can be predicted by] considerations of word or morpheme boundaries, since such contrasts participate in the internal dynamics of phonological structure in the same way that all other contrasts do. For example, some speakers distinguish cheer up from chirrup by /ih/ vs. /i/, or spear it from spirit in the same way. Others do

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not. Even if all of the available minimal pairs show such morpheme or word boundaries, the presence or absence of the distinction is a phonological fact, correlated with the presence or absence of a contrast between /eh/ and /e/ in fairy and ferry, a contrast independent of grammatical boundaries. Similarly, the distinction between a (tin) can and (I) can can be resolved into a grammatical distinction; yet the phonological shift which is seen most obviously in such minimal pairs which establish /æh/ distinct from /eh/ has continued with a merger of /æh/ and /eh/, and later a merger of the combined phoneme with /ih/. As this chapter shows, the structural relations of these phonemic units are independent of the fact that some have grammatical correlates, and others do not.

[6]Thus this first step is the determination of allophones, as defined in Chapter I, each considered as a representative of a larger unit which is a phoneme. The phonemic analysis which we will discuss in the following pages is primarily a study of contrast of phonemes through their allophones in a particular position.

[7]Even with the use of near-minimal pairs, one must often resort to such odd words as buoyed. While such lists may be useful among highly educated respondents, they have little utility in the study of the language of a community as a whole. Even a word such as bared was given special treatment by almost all of the respondents; a large number read it as barred.

[8]Yet some marginal contrasts will always depend upon odd or rare words, such as mysterious vs. delirious or dew vs. do vs. adieu or yew vs. you. The concept of a "rare word" is readily applied to yew and dew after we hunt for them in casual speech. Variance analysis does not of course depend upon such word pairs.

[9]The diphthongs /ay/ and /aw/ form the most obvious isolated clusters. In New York City speech, /aw/ usually has no close neighbors in phonological space and /ay/'s separation from /oy/ is quite marked.

[10]As indicated in note 3 above, the existence of a grammatical fact which accounts for the occurrence of the words in question with a particular variant, will not be taken as eliminating the existence of phonemic contrast.

[11]A phonetic transcription which escapes the powerful force towards phonemicizing latent in the native speaker, will show many such deviations even in the short vowels. Single phonemes in isolated words are treated as all-or-none categories in the expectation of the listener, but they are not

so discrete in the production of the speaker. This is shown experimentally in G. E. Peterson and H. D. Barney, "Control Methods Used in a Study of the Vowels," Journal of the Acoustical Society of America, 22:175-84, 1952.

[12]It is evident that in most cases, variance analysis will be applied in most detail for doubtful cases, rather than in a complete transcription of all variants for all speakers. Such a detailed record has been made in some surveys of dialect geography. The Linguistic Atlas of the Eastern United States provided enough detail for such analysis, and The Pronunciation of English in the Atlantic States shows phonemic units primarily based upon variance analysis, in careful speech. Wetmore, op. cit., gives variance charts which illustrate this method in great detail.

[13]For example, we never recorded in casual speech any of the forms given in the list for contrastive analysis above except bad, had, bored and bird.

[14]The following list of words containing ingliding phonemes was recorded in conversation [casual and careful] with one of the ALS informants: years [4], beer, here [2], dear, steers, dares, there, you're, four, door, or, before, York, Charleston, darling, cars, heart, are, worm, nurses, certain, turn. Not all of these were in the comparable prosodic positions required for contrastive analysis.

[15]A similar pattern may be seen in Figure 20, for (eh), but the peak in Style A is not as sharp for Italians because of the existence of some speakers with very high (eh) vowels, and not as sharp for the Jews because of some speakers who have incorporated corrected forms of (eh) into casual speech.

[16]There are large-scale variations in the distribution of some short vowels before nasals, as in pin vs. pen. There are also many variations in the tendency of the low forms of /æh/ and /oh/ to creep into the system of short vowels, as discussed below.

[17]For the scale of spectrographic measurements, see F. Cooper et al., "Some Experiments in the Perception of Synthetic Speech Sounds," Journal of the Acoustical Society of America, 24:597-606, 1952.

[18]Other geometrical configurations might be used which suggest more of the actual distances involved in the movements of the tongue. Such phonetic adaptations of the structural diagram would be desirable only if they were required to illustrate certain directions of change or structural oppositions below the phonemic level. No such sub-phonemic relations are needed for the view of the short vowels.

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[19]The concept of over-all pattern was first utilized extensively by George L. Trager and Henry L. Smith, An Outline of English Structure, (Washington, D. C.: American Council of Learned Societies, 1957). A detailed discussion is provided in Charles F. Hockett, A Course in Modern Linguistics, (New York: MacMillan Co., 1958), Chapter 39.

[20]In Chapter X, the distribution of /ʌh/ was given, without the occurrences of the sound [ɜ˚]. The latter is favored by Negro respondents, and some older white middle class respondents, but it also occurs regularly in the speech of all groups. The prominently rounded and lengthened form formerly heard in the prestige dialect was not noted.

[21]There are three or four respondents, noted below, who distinguished dock from dark, or god from guard, by length alone, but they were not consistent. The feature of length is occasionally used by some speakers in the metropolitan area to distinguish balm from bomb, but these were identical for all our informants.

[22]Thomas H. Wetmore, The Low-Central and Low-Back Vowels in the English of the Eastern United States, (University, Alabama: University of Alabama Press, 1959), Publication of the American Dialect Society No. 32.

[23]The notation used here indicates a contrast between /ah/ and the variable (oh), rather than the phoneme /oh/, since the phonemic status of (oh) has not yet been resolved. There is no overlap with /ah/ in any case; the question concerns the contrast between /uh/ and /oh/. Therefore a relation between /ah/ and (oh) implies a relation between /ah/ and /oh/.

[24]The demonstration given here is thus parallel to the presentation of the same principles in dialect geography, given by W. Moulton, "Dialect Geography and the Concept of Phonological Space," Word 18: 23-32, 1962. Moulton demonstrated a close correlation between the phonetic position of the low central phoneme and the phonetic positions of the mid phonemes in the vowel systems of Swiss German dialects.

[25]Thus the behavior of /ah/ is completely consistent with the theoretical views of Martinet, cited above, in which the internal economy of the phonological system is the chief motivating agent in linguistic change. Moulton's study supports this view just as directly.

[26]The informant described here is a fourth generation New Yorker, whose grandparents were brought to the United States from Italy when they were very young. She was raised in Brooklyn, and has worked as a bookkeeper in a bank, and as a checker in a super market. She graduated high school.

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[27]One reason for the fact that this merger has not been reported is the strong tendency of native speakers to hear words which have standard /ih/ as lowered variants of [ɪ], and words which have standard /eh/ as raised variants of [e]. The phonetic overlap of the two vowels may be distinguished by this phonemic tendency inherent in phonetic transcription, and it can be countered only by isolating the words on tape, or by the mental experiment of imagining that the word being transcribed is alternately a member of the /ih/ or /eh/ class. Unless the transcriber is prepared for such a merger by variance analysis or some anecdotal evidence of contrastive analysis, he will not detect the overlap in the course of ordinary transcription.

[28]Many New York Negro respondents fall into this category, using fairly low mid vowels for both cheer and chair, steer and stare, here and hair. Kurath and McDavid, op. cit., show a merger of this type in many parts of the Lower South, especially in coastal South Carolina [Maps 34-41].

[29]Words such as buoy and [chop] suey are bisyllabic in New York City.

[30]The norms revealed in the SR test are more absolute than the ones shown here, but they are too far removed from the natural economy of the speech process. For example, Negroes show the most uniformity in the evaluation of (r-1) as a prestige feature, but the least ability to use it in speech, even in Style D'.

[31]The pair bared vs. bad is excluded because it showed a radically different pattern. Many readers stumbled over this word, or interpreted it as barred, and the amount of (r-1) used is much higher than for the other pairs--a difference not consistently shown between this sub-class and the other sub-classes of (r) words in other styles.

[32]Only two New York respondents used all /r/ in Style C and Style D for bared vs. bad and the three pairs used in Table 6. In Styles A and B, these speakers were of course less consistent.

[33]In one interview with a young couple, both teachers in the New York City schools, I was able to document the merger of both sets of high and mid vowels. The husband had difficulty in passing the New York City oral English examination which is required for teachers; his wife, an English teacher in a junior high school, had coached him. The greatest difficulty she had was to teach him to distinguish beer and bear, etc. He has restored this distinction in formal style, but still merges /uh/ and /oh/ even in Style D. His wife told of an experience in teaching the meaning of the word homonym to her class, in which one girl volunteered the pair sure and shore; after twenty minutes of argument, the teacher had still failed to convince her of her error.

[34]The converse of this absolute regularity appears in the group of respondents who used no (r-1) in Style D'. There are 21 such informants, and none of them are in the lower middle class. The following table shows that this type of speech behavior occurs primarily in the oldest and youngest respondents of the lower class and working class.

PERCENTAGE OF (r)-00 SPEAKERS IN STYLE D' BY AGE AND CLASS

	SEC							
Age	0-1	2-5	6-8	9				
20-39	67	75	00	20		N:		
40-49	20	18	00	25	3	17	11	5
50-59	33	14	00	33	5	17	9	4
60-	71	50	-	-	3	7	1	3
					8	4	-	-

[35]The highly specific nature of this historical development invites us to explore the social changes which may be correlated with the introduction of /r/ as a prestige feature. Changes have certainly taken place within the institutional structures: a generation of speech teachers who followed the British standard seems to have passed away, and school teachers with mid-western patterns have appeared in the city with increasing frequency. As suggested in the following chapter, this is an area of study which deserves a careful, independent investigation. It should also be considered that the general broadening of the social horizon which accompanied the induction of millions of New York City men into the armed forces must have had an effect upon the evaluation of speech patterns.

We might argue plausibly that such extensive exposure to other r-pronouncing dialects was an important factor in the shift of prestige dialects in New York City. However, the significance of such "external" events appears less certain when we consider that women, not men, show the greatest tendency to adopt /r/; that many men report that their New York City speech was not ridiculed in the armed services, while vacationers and tourists do report such reactions; and that the over-all change appears as an increase in stratification rather than an increase in the use of /r/. It is possible that the shift in the schools, and in the broadcast media, may best be considered as symptomatic of a larger process of urban stratification, accelerated by the long-standing negative prestige of New York City speech.

CHAPTER XIII

CONCLUSION

The investigation which has been reported in these pages may be characterized as a search for regularity. In the opening chapters, the complexity of the linguistic problems presented by New York City were described in some detail. The difficulties exhibited in Chapter II were the result of attempting to impose an invariant structure upon the language of New York City--in formal terms, to show each phonological context as an equivalent zero-order structure. In the succeeding stages of the investigation, variation was explicitly recognized as an element of linguistic structure, and the regularity inherent in this variation was studied. As the scope of the study was gradually widened from the speech of the individual to that of the community, increasingly regular structures were discovered.

The search for regular structure

The isolation of contextual styles [Chapter IV] disclosed a recurrent first-order structure in the speech of individuals. In a more comprehensive view, each of the variables was seen as participating in a second-order structure of social and stylistic variation [Chapter VII] in which many of the irregularities noted in Chapter IV were found to be regular

characteristics of specific sub-groups. The concept of social variation was then refined [Chapter VIII] to account for many social factors, including those which affect the individual in his earliest years. All of these aspects of second-order structure were examined along an additional axis of variation [Chapter IX] as the distribution of linguistic behavior in apparent time was outlined. The third-order structures such as that shown in Figure 6 of Chapter IX exhibited the gradual evolution of the second-order structure in real time, projected upon the dimension of apparent time by a complex set of re-alignments. The differences between third-order structures for specific variables repeated the deviations from second-order structure first noted in Chapter VII. Thus the cross-over pattern of the lower middle class was associated with those variables which showed linguistic change in progress, and the reversal of the upper middle class pattern in Style D was associated with those variables which showed linguistic change from below. These recurrent deviations re-defined the statement of regular structure, and the degree of irregularity in the data was correspondingly reduced.

Thus as the study of the five phonological variables was enlarged to show more of the social context in which language is used, the data became simpler in the sense of showing greater regularity. Irregularities in the stylistic pattern of a particular speaker appeared as regularities in the linguistic structure of the community.

For example, the initial variability of most informants with respect to (r) appeared as highly irregular in Chapter II, but as part of a regular pattern in Chapter IV, when stylistic variation was studied. In Chapter IV, a lower class informant who showed no stylistic pattern in his use of (oh) appeared as an irregular case. In Chapter VII, his behavior was seen as a regular element in a larger pattern in which lower class speakers did not treat (oh) as a social variable. In terms of Chapter VII, a Negro working class speaker who showed no stylistic variation for (oh) or (th) would be considered an irregular, inexplicable case. But in Chapter VIII, his behavior appeared as a regular form for his particular ethnic group. In Chapter VIII, an older Jewish upper middle class man who showed no stylistic variation for (r), and used only (r-0) in Style D', would seem to be an unexplained exception to the general pattern. But in Chapter IX, his adherence to the older prestige pattern appeared as a regular and expected development. Thus the extensive series of convergent and parallel results appears in the over-all view as a nested set of relations.

The search for regularity was then extended in Part III to the complementary aspect of social stratification: the social evaluation of the variables. In the results of the subjective response test in Chapter XI, a much higher level of uniformity was found than in the studies of objective performance. Many extreme differences in the performance of social classes were replaced by a uniform recognition of social

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values for almost all speakers of a given age group. The complex and subtle sets of relations between age levels found in Chapter IX appeared as a series of sharply stratified differences in social evaluation by age level. Yet the details of the SR test also showed parallels to almost all of the findings in Part II. Those who showed the highest use of a stigmatized feature in casual speech also showed the highest sensitivity to its social significance. Variables which showed regular structure for all social classes in Part II showed uniform social evaluation in Part III, while variables such as (oh), which showed limited social range in Part II, showed similar limitations in subjective response.

In Part IV, the results of preceding stages were re-analyzed to show correlations between the variables in the speech of individuals, and these correlations were re-assembled into over-all vowel structures. The structural integration of the pattern of casual speech was demonstrated empirically by a series of co-variations between mid vowels, between low vowels, between low and mid vowels, and finally, in Figure 4 of Chapter XII, as a quaternary co-variation of low and mid vowels. The other aspect of regularity summarized in Chapter XII was the high degree of agreement of New Yorkers in the direction of the pattern of stylistic variation. These two aspects were combined in the third-order structure of Figure 5, and refined further in the fourth-order structure of Figure 6. These diagrams represented in one sense the conclusion of the search for regularity; the vowel system used

by New Yorkers at any given time can be located along the vertical axes of variation and (for most New Yorkers) identified with one of the discrete stages outlined as horizontal planes. However, Figures 5-6-7 must be considered primarily as convenient methods of summarizing the much larger number of regularities which are shown in the many tables and diagrams throughout Chapters VII-XII.

The degree of predictability within the structures that have been studied extends to small groups of utterances and small groups of speakers, but not to the individual utterance nor the individual speaker. Within this limitation, it may be said that the search for regular structure in the New York City speech community was successfully terminated in Chapter XII.

Internal confirmation of the findings

A certain degree of confirmation of the present study was obtained by comparison with previous reports of the speech of New York City. However, the methods used by previous investigators, the populations studied, and the selection of informants were so different from the present procedures that comparisons were necessarily limited. The principal source of confirmation of the present work was found in the internal agreement of the results. The highest degree of confirmation was obtained from the unexpected convergence of patterns which emerged from data obtained by two different methods.

1. The final step in the analysis of the department store survey was an attempt to show the development of (r) usage in apparent time. The resulting pattern for the three stores showed increasing use of (r-1) with decreasing age for the highest ranking store, the reverse relation for the middle ranking store, and no obvious trend for the lowest store. This unexpected finding was difficult to analyze in terms of the department store survey alone. At a later stage of the investigation, the analysis of the Lower East Side survey showed that older respondents of the lower middle class tended to adopt the most recent prestige pattern, thus reversing the distribution in apparent time shown by the upper middle class. The actual findings of the Lower East Side survey for (r) then showed a striking convergence with the findings of the department store survey.

The comparison of Figure 5 of Chapter III with Figure 8 of Chapter IX revealed a point-by-point correlation of complex patterns which were derived by two entirely different routes. The possible sources of error in the Lower East Side survey were the areas in which the department store survey was least subject to error; the converse was equally true. The convergence of these two diagrams established the general analysis of relations in apparent time as correct, and in turn validated a large part of the structural analysis of Chapters VII through IX. The studies of self-evaluation and linguistic insecurity then further confirmed the linguistic mobility of the lower middle class, and its role in linguistic change. The signifi-

cance of this finding for the study of linguistic evolution was outlined in the final pages of Chapter XI.

2. Another set of internal agreements was found in the parallel results for (eh) and (oh), summarized in the opening section of Chapter XII. The number of convergent findings for the relations of (eh) and (oh) to Jewish and Italian ethnic groups was very large, extending from the initial results of Chapter VIII, through the studies of apparent time, of subjective response, and of self-evaluation.

3. A third set of internal agreements contrasted the findings for (r), (eh), and (oh), on the one hand, with those for (th) and (dh) on the other. A number of elements in the structures of the first three variables were associated tentatively with the existence of linguistic change in progress: the cross-over pattern of the lower middle class, fine stratification as opposed to sharp stratification, regular distribution in apparent time as opposed to irregular distribution. When (th) was re-examined for evidence of a cross-over pattern in Style D, the complete absence of any such trend showed internal agreement with other indications of the stability of (th) in real time.

4. A fourth approach to internal confirmation utilized the records of the out-of-town respondents and compared their speech performance and subjective reactions to that of New Yorkers. It was thus possible to confirm the existence of linguistic processes that were peculiar to New York City, to show that the subjective responses were indeed reactions to

particular linguistic variables, and identify those variables which were common to the Eastern United States as a whole.

Principles of method

A number of the methods described in the present study were developed for the first time in this investigation: the exploration of their reliability has been an important aspect of the work.

1. The use of a sociological survey as a base for a linguistic survey was a logical step in the investigation of urban speech, although it had never been taken before. The study of the Lower East Side was a secondary survey, based upon the 1961 survey of the area by Mobilization for Youth. By using the MFY sample, it was possible to obtain a more representative group of informants than could have been obtained by independent efforts. The primary survey also permitted a stratified sampling technique for the secondary survey which was more efficient than fresh random sampling would have been, since the native English speakers were selected from the population in advance, and the important ethnic groups were represented in sufficient numbers for later analysis. Finally, the ALS survey was relieved of the need to collect any sociological data, and was devoted entirely to the linguistic behavior of the respondents.

One critical principle may be said to have governed the selection of informants: that it is not the number of cases

which is important, but the method by which they were chosen. It is true that the previous studies were limited in the number of cases--25 to 30 for the Atlas and Hubbell. But these numbers would have been sufficient to obtain the major outlines of stylistic and social stratification if the 25 cases had been selected by a systematic method. In the present approach, a sample of 988 MFY respondents provided an ALS target sample of 195 individuals. A total of 159 adult ALS respondents were interviewed, but the bulk of the study depended upon a relatively small number of 81 informants whose speech represented the adult native New York City English speakers of the area. Most significantly, the selection of age levels and ethnic groups included representation from all of the social groups that are important in the structure of New York City speech. Whereas the previous studies were practically empty of working class and lower middle class respondents of Italian, Jewish, and Negro respondents, the techniques used here insure that no such gaps occurred. Furthermore, the method of sampling was designed to minimize the biases which stem from availability and convenience as factors in the choice of subjects.

The term "New York City speech" has been freely used for the patterns described in the study of the Lower East Side. The extension of the results for the Lower East Side to the city as a whole may be justified on the following grounds: [a] The survey of the Lower East Side converged with the department store survey. [b] The respondents raised in other parts of New York City showed essentially the same patterns

as those raised on the Lower East Side. [c] No previous study has found any basis for geographic as opposed to social differences in the speech of the city as a whole. However, the findings as presented here must be considered subject to further modification as the result of more intensive study of the speech of other parts of New York City.

2. The questionnaire for the ALS survey was designed around the problem of isolating contextual styles, following principles which had never been systematically applied to linguistic research. Particular attention was given to the critical problem of eliciting casual speech in a context which normally evoked only careful conversation, and formal methods for the recognition of casual speech were developed. The consistent patterns of stylistic variation shown in Chapters VII through IX indicate that this method was successful.

3. The codification of the five main phonological indexes continued a method which was first developed in the study of Martha's Vineyard. In the New York City investigation, this method was carried out on a much larger scale, and quantitative indexes were used to register a much wider range of social and linguistic factors. The basic principle which lies behind the use of quantitative indexes is that the investigation of small differences in linguistic behavior reveals the linguistic structure of speech as a whole and the directions of change within the system, more accurately than qualitative observation limited to undifferentiated functional units alone.

4. The study of subjective reactions to language is a

relatively untried field; the attempts made in the past did not isolate subjective response to any particular feature of language. A test for subjective response to specific language variables was used for the first time in this study, and its reliability was confirmed by a number of internal analyses described in Chapter IX.

5. A number of new analytical methods were also developed in the course of this study. The formal definition of structure first stated in Chapter VII originated with the need to state precisely what degree of regularity had been observed in the empirical findings, and to define the concept of deviation by an operational procedure. The analysis of the relations of apparent time and real time in Chapter IX was an initial attempt in this field, and the tentative results were confirmed by internal evidence drawn from the present study.

Some particular findings

The general results of the present study have been outlined in the first section of this chapter. The main focus of attention has been placed on the nested sets of relations which comprise the linguistic structure of the community, and the particular phonological elements studied have only been means to that end. However, several of the particular findings are of special interest because they had not been reported in previous studies and were not foreseen by the results of the exploratory interviews.

1. The merger of high and mid ingliding vowels in the speech of many younger New Yorkers appeared as an unexpected consequence of the other processes of linguistic change that had been observed in the vowel system. This result was seen originally in the high degree of overlap between high and mid vowel variants, and confirmed by direct evidence from the contrastive analysis of formal styles for some informants.

2. The parallel tendencies of Jewish and Italian respondents to use high values of (oh) and (eh) respectively were not predicted by any previous observations, and represented an unexpected finding which emerged from the data. The relations of Jews and Italians were then seen as a close network of parallel oppositions and gradual convergence which appear to represent an important element in the general process of linguistic change in New York City.

3. The gradual importation of the *r*-pronouncing prestige pattern into New York City was observed in previous studies, and in exploratory interviews. However, the suddenness of the change, which seems to have coincided with the period of World War II, was an unexpected result. The sudden shift in subjective evaluation shown in Chapter IX has led to an increase in the social stratification of every-day New York City speech, as upper middle class speakers follow the new pattern. The result of this shift is sharper social stratification of casual speech in the city, in which increasingly divergent use of (r) accompanies a uniform evaluation of (r-1) as a prestige marker.

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Some directions for future study

In the evidence already gathered, there are many aspects of linguistic behavior which await examination. The discussion of social evaluation in Part III has been curtailed in the interest of brevity, and a more detailed study of the self-evaluation test will clarify the view of subjective norms and audio-monitoring behavior. A large body of evidence on general attitudes towards the speech of New York City is also available, which reflects the same social and cultural forces which motivate the phonological behavior discussed in the preceding chapters. An analysis of the relation of the New York City dialect region to lines of traffic flow and communication shows that New York City deviates from the patterns followed by other dialect regions; such a deviation may reflect a pattern of negative prestige which is much older than the earliest evidence on speech itself.

A large body of evidence on the social characteristics of the informants is available, and may be correlated with the linguistic behavior studied here. The social mobility of the respondents is a particularly important aspect of their behavior, which should be correlated with the various measures of stylistic shift and linguistic insecurity in the present study. Social aspirations and attitudes towards the community are not unrelated to linguistic behavior, and may provide some insight into the forces which motivate linguistic change from below. The comparison of developments within families may be explored in further studies as a particularly useful method of showing the combined process of social mobility and linguistic change.

A great deal of further information on linguistic behavior is available in the records of the ALS survey. The social distribution of other phonological variables, and of syntactic and semantic usage remains to be investigated. Furthermore, the use of language to accomplish certain difficult communicative tasks, such as narration and direction, can be studied in the records of the ALS survey. The lexical information given in the initial sections of the survey provides an index of linguistic tradition which may be coupled with developments in apparent time. The relation of the informants' use of English to their use and knowledge of other languages remains to be investigated.

A great many of the special characteristics of Negro speech were dealt with only briefly in this study. The relatively large number of Negro respondents in the present survey provide a comprehensive view of Negro speech which requires separate discussion. The influence of Negro speech patterns on lower class speech in general remains to be studied as a vital element in the general evolution of New York City speech.

Beyond the present survey, there are important areas of New York City speech to be investigated. The speech of Puerto Rican youth who are native English speakers is rapidly becoming an important element in the fabric of the linguistic community. The upper class as a whole remains untouched in the present study, and must be sampled by methods quite different from those used on the Lower East Side. A large body of information on the use of English in public situations has

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been accumulated, including radio and television announcers, actors, public officials and private citizens speaking at public hearings. This evidence will enlarge the present view of the structure of the New York City speech community.

An important element in the speech community is the institutional structure which influences the development of language. The linguistic attitudes and practices of teachers, principals, personnel managers, and employment agencies, may play an important role in the development of social pressure from above. On the other hand, the attitudes and practices of all types of primary social groups, ranging from the family and the street gang to the private club and the board of directors, are critical areas for the investigation of social pressure from below.

The generality of the linguistic behavior shown in this study can only be tested by investigating a number of other communities, both urban and rural, with some of the techniques developed here. New York City may be considered an extreme example of a complex urban society; in varying degrees, one would expect all of the social and linguistic processes shown here to be present in other communities.

Conclusion

In the opening chapter, the relation of individual speech to the speech community was reviewed, as the first step towards the analysis of variation. The results of this study as a

whole show that in New York City, the speech sounds used by the individual alone do not form a consistent and coherent structure: the speech of the community does form such a structure. The isolation and description of the linguistic structure of New York City has been carried out by the empirical procedures of this investigation. Thus the principles of structural contrast have been extended to areas which had formerly been considered inaccessible to linguistic analysis.

The methods that have been followed in this study cannot be considered peripheral to linguistic analysis. No smaller field than the community as a whole could have been studied in order to carry out the basic aims of structural analysis, and no less complex methods than those used here could have revealed the processes of linguistic change that are taking place in New York City. The application of these methods to other communities may be expected to disclose further regularities in linguistic behavior, and yield further information on the process of linguistic evolution.

GLOSSARY

GLOSSARY

OF LINGUISTIC SYMBOLS AND TERMINOLOGY

I. Brackets, parentheses and virgules

[ ] phonetic notation, symbolizing speech sounds

/ / phonemic notation, symbolizing phonemes

( ) variable notation, symbolizing phonological variables

(eh)	a variable in general
(eh-4)	a particular value of a variable
(eh)-22	index score or average index score for a variable

II. Phonetic symbols

The phonetic notation used in the present work is that of the International Phonetic Association. The symbol [ɪ] is used in place of IPA [ɪ], and [ʊ] in place of IPA [ʊ]. The position of the low vowels is indicated in Figure 1 of Chapter X. The symbol [ɒ] is regularly used for a low back unrounded vowel; where the low back rounded vowel is indicated, the symbol is specifically marked as rounded. The low back-central vowel is indicated by [ɑ], and the low front-central vowel as [a]. The present notation differs from that of the Linguistic Atlas as follows:

Present Study	Linguistic Atlas
[a]	[a]
[ɑ]	[ɑ]
[ɒ]	[ɑ̈]
[ɒ̝]	[ɒ]

G-2 III. Values of the variables.

(r)

(r-1)	[r, ɚ, ə˞]	constricted consonant or glide
(r-0)	[ə, ə, ʁ, ʌ, -]	unconstricted glide, lengthened vowel, or no corresponding phonetic element

(eh)

(eh-1)	[ɪə]	NYC beer, beard
(eh-2)	[ɛə]	NYC bear, bared
(eh-3)	[æˑ]	
(eh-4)	[æ:]	NYC bat, batch
(eh-5)	[a:]	Eastern New England pass, aunt
(eh-6)	[ɑ:]	NYC dock, doll

(oh)

(oh-1)	[ʊə] [oˑʊə]	NYC sure
(oh-2)	[ɔˑʊə]	
(oh-3)	[ɔˑə]	General American for, nor
(oh-4)	[ɔ:]	IPA cardinal /ɔ/
(oh-5)	[ɒ,] (rounded)	Eastern New England hot, dog
(oh-6)	[ɑ]	NYC dock, doll

	(th)	(dh)	
1	[θ]	[ð]	an interdental fricative
2	[tθ]	[dð]	an affricate
3	[t]	[d]	a lenis stop

IV. Standard linguistic terms and terms defined in this study

[Those terms which are not commonly used in linguistic discussion and which are introduced for the purpose of this study, are identified at the beginning of the definitions by reference to the chapters where they are first introduced.]

affricate: a consonant with a sudden, stop-like onset which continues with a scraping, fricative-like sound; the initial consonants of chip, judge, tse-tse are affricates, as well as the sound which corresponds to -t y- in paint your wagon, in rapid colloquial style.

allophone: one of several distinct speech sounds which do not contrast with one another in distinguishing words, and are members of the same phoneme. A rapidly pronounced diphthong [aᵉ] with a slight glide, and a slow diphthong [ɒ:i] with a distinct glide are both allophones of /ay/ in I'll.

array of relations: as defined in Chapter VIII, a set of relations in which the form of any one relation can be predicted from its position in the whole.

checked syllable: a syllable which ends in a consonant or a consonant cluster, such as hit, burst, butler; opposed to free syllable.

constriction: narrowing of the space available for the passage of air in the articulation of speech sounds, without shutting off the flow of air entirely; constricted (r) is articulated with the tongue close to the roof of the mouth, and only a very narrow central passage for air remaining; weakly constricted (r), sometimes written [ə˞], is a less narrow constriction, but not so open as a central vowel glide [ə].

contrastive analysis: [as defined in Chapter XII] an approach to phonemic analysis which relies upon minimal pairs and near minimal pairs to establish contrast between functional units.

fine stratification: see stratification.

free syllable: a syllable ending in a vowel, as be, law, lawful; the opposite of a checked syllable.

fricative: a narrowly constricted consonant characterized by a continuous hissing or scraping noise, produced by turbulent motion induced in the air stream; the initial consonants of fin, vim, thin, then, sin, shin, Zen, and medial consonant of pleasure.

fronting: a shift of articulation in which the highest part of the tongue is placed closer to the mouth, and further from the throat.

glide: a rapidly articulated, resonant speech sound, pronounced more quickly than the syllable nucleus to which it is adjacent; the first sound of you're or the last sound of Roy.

homogeneous set: [as defined in Chapter VII] a group of units selected by a single operation.

ingliding: terminating in a mid-central glide, as ingliding vowels [e$^{\vartheta}$] and [u$^{\vartheta}$].

linear set: [as defined in Chapter VII] a group of units defined by a series of selections which differ only in their successive filling of ordinal ranks on a linear scale.

morpheme: the smallest meaningful unit of language, such as a root, a suffix; dragging contains two morphemes, dragon only one.

nasal: a speech sound articulated with the passage between the throat and nasal chamber partly open, thus adding nasal resonance to the usual oral resonance. In English, the consonants /m/ and /n/ are nasal consonants; the vowel of can't is a nasal vowel, though it is not a separate phoneme.

nucleus: the most sonorous part of a syllable; the vowel which is longest and receives most stress, as opposed to the glide of a diphthong which is shorter and less stressed.

nucleus-glide differentiation: [as defined in Chapter X] a shift of articulation [from a more common standard] in which the place of articulation of the nucleus is increasingly different from that of the glide, as in the fronting of the first element of /aw/ and a backing of the first element of /ay/.

phoneme: a functional unit of the sound system of a language: the minimum unit which distinguishes morphemes, words or word sequences. Thus the final sounds of wreath and wreathe are two different phonemes, /th/ and /dh/, since only the contrast of these two sounds distinguishes the two words.

A phoneme may be represented by a number of speech sounds which are equivalent in their function of distinguishing words: these are allophones of the phoneme

-5 in question. The differences between allophones may be [1] conditioned by the phonetic environment, as when the final glide of buy is longer than the pre-consonantal glide of bite; [2] part of a structure of stylistic or social variation, as in the difference between (oh-2) and (oh-3); [3] conditioned by physiological differences, as in /s/ pronounced by those without teeth; [4] a slight variation in sound which shows no systematic pattern, and for which no social, stylistic or cognitive significance is immediately apparent.

phonemic: concerning phonemes, as in phonemic notation.

phonetic: concerning speech sounds, as in phonetic notation which registers speech sounds without regard to functional importance in distinguishing words.

phonological space: the range of variation in the articulation of speech sounds which is utilized by a language in the discrimination of functional units, along such dimensions as fronting, backing, raising or lowering of the tongue; rounding or unrounding of the lips; stopping, obstructing or releasing the passage of air, etc.

phonological system: the set of phonemes, their relations to each other and to phonological space, and the structure of non-distinctive units within and across phonemes.

regular structure: [as defined in Chapter VII] a regular array of relations between linear sets.

sharp stratification: see stratification.

speech sound: a relatively homogeneous section of articulated sound.

stop: a type of consonant characterized by a total interruption of the flow of air from the lungs, and a sudden release; the initial consonants of pin, bin, tin, din, kin, gun, etc.

stratification: [as defined in Chapter VII] the separation of sets of characteristics into distinct levels; a second-order structure. Sharp stratification is a wide separation of a few discrete layers [necessarily by comparison with at least one pair of narrowly separated layers]; fine stratification is a correlation of two continuous or near-continuous variables into an [indefinitely large] number of narrowly separated layers.

structure: [as defined in Chapter VII] an array of relations between linear sets for which the degree of deviation from a regular array [and therefore from a regular structure] can be measured.

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upgliding: terminating in a high glide [front or back], as upgliding vowels [e^{I}] and [o^{U}].

variance analysis: [as defined in Chapter XII] an approach to phonemic analysis which utilizes the distribution of speech sounds in discrete, overlapping or contiguous patterns to establish the existence of functional units.

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APPENDIX

APPENDIX A

QUESTIONNAIRE FOR THE ALS SURVEY

I. "Some information on your language background"

A. 1. What was the first language that you learned to speak? [if not English, go to page 2, question 2a.]

2. What country were you born in?
[ALL such questions to be specified as follows: if U.S.A., what city? if NYC, what neighborhood?]

3. What country was your father born in?

4. What was his native language?

5. Did he learn any other language when he was growing up?

6-8. [Same questions for mother.]

9. What country was your father's father born in?

10. What was his native language?

11-16. [Same questions for father's mother, mother's father and mother. NOTE: Questions 3-16 to be pursued until first generation born outside U.S.A.]

17. When were you born? [Year]

18. Are you married?

19-20. [If yes] what country was your wife born in? What was her native language?

21. Have you any children? [If so], what are their ages?

22. Can you give me an idea of the places you have lived, starting from the time you were first learning to speak?

23. Where did you go to elementary school? to high school? to any further schooling?

24. Did you speak any other language besides English when you were growing up? [If yes, go to page 2, question 15a.]

A-2

I. B. For those whose first language learned is not English

2a. What country were you born in?

3a-4a. What country was your father born in? your mother?

5a-6a. Did they come to the U.S.? When?

7a. What year were you born?

8a. When did you come to the U.S. [if not born here]?

9a. Where have you lived since you came to the U.S.?

10a. Which language is most natural to you now?

11a. [If there has been a change] when did this change take place?

12a. Are you married?

13a. [If so], what is your wife's native language?

14a. Do you have any children? what ages?

15a. Can you give me an idea of how much you use your other language in the following situations [not at all, a little, less than half the time, half the time, more than half the time, almost always, all the time]

talking to your parents [now or in the past]
parents talking to you " " " " "
at school or at work
with friends around home
reading newspapers
in church
dreaming

A-3

II. Lexicon: Traditional

"Now I'd like to ask you a few questions about some of the words you use today for every-day objects, and some others you used when you were growing up."

A. 1. What do you call the round cake, shaped like a tire, covered with powdered sugar, that some people dunk into coffee? [If doughnut:] Is there a difference between a doughnut and a cruller?

2. What is the name of the soft, white, very lumpy cheese that some people eat with sour cream, or else with green salads? [If cottage cheese,] what is pot cheese?

3. When you go to the movies, and you find a great many people waiting to get in, you may have to wait with them. You would say that you were waiting or standing . . . [in or on line]?

4. If you accidentally knock into someone on the street, and you find that you know that person, and stop and talk a while, you might say on coming home that you had . . . [bunked into him?] [Did you ever hear someone say bunked?]

5. When a little boy puts his head down on the ground, and rolls head over heels, he is doing a . . . [If somersault,] is that the same as a tumblesault? [If so,] how do you say that?

6. Did you ever go riding on a small sled in the winter? [If yes,] if you took the sled in both hands, ran down the hill, and threw yourself face down on the sled, what would you call that kind of a ride? [If no name,] what would you call a dive into a swimming pool in which you land flat on your stomach?

A-4

II. Lexicon: children's.

B. 1. If you should come out of your house with a piece of cake or candy in your hand, a friend sees you, what one word could he say to claim half or a part of it? That is, if he says this, you have to give it to him, but if you say something first, you don't have to?

[Check list: thumbs up, heggies, akios, whacks, havesies, divvies, some, goodies]

2. Suppose two boys are fighting, and one wants to call time out, what does he say? [Fingers?] What if he has had enough, and wants to quit? [I give, uncle?]

3. In a game like hide-and-seek, or kick-the-can, what would you holler out to bring everybody in? [False alarm?]

4. Did you play marbles very much?

   a. What did you call a big marble?
   b. A glass marble?
   c. A steel marble?
   d. Your favorite shooter?
   e. What was the main game you played? How did you play it?

5. There is a game played on the city streets with 13 numbers in a big square; you flip bottle caps or checkers from one number to another. Did you play that game? What is the name of it? Can you tell me how it is played?

6. In this game, or in marbles, suppose your marble or bottle cap was stuck behind something so you couldn't shoot. What would you say to

   a. Be allowed to move around it?
   b. Be allowed to remove whatever was in the way?

A-5

III. Folk lore

"Now I'd like to ask you about some of the customs or rules you followed when you were a youngster. Children don't learn these from radio, or television--or from books or teachers--but from each other. Languages used to be learned that way, and that's one of the reasons that we're very much interested in these things."

A. [For males]

1. Did you ever get into fights when you were a kid? Did you have any rules about what was considered fair? [Kicking or stomping, biting, hitting below the waist, etc.]

2. Do you remember any particular fight that was very crucial? Did you ever fight with someone much bigger than you were? Did you ever go into a fight fairly certain that you would lose?

   [continue here until informant talks spontaneously]

3. What were some of the names that were used for people of different nationalities? Italians, Negroes, Puerto Ricans, Jews . . . Which of these were "fighting words," and which could be used in kidding around?

4. What was the term for a very pretty girl? A very ugly one? The usual slang term for a girl among boys? Could you use that in front of a girl?

5. [If the informant's temperament seems to permit] what was the most direct word for a girl's sex organs? The most common word? Any slang words? [If you take the words pussy, snatch, cunt, hole, nooky] which of these do you think might possibly be the oldest, a word that could have been used by your great-grandfather if he spoke English?

6. Do you know a game where one boy stands in the middle and tries to catch one of the gang that runs past?

   [Check for various games: Three Steps to the King, King in the Middle, Father and Son, Red Devil, Johnny Jump Up . . .]

   [Try to get informant to tell you how some of these are played.]

III. Folklore

B. [For girls]

1. Suppose you were telling somebody something that you didn't want to count, what could you do with your hands or some part of your body? [Could you cross any other part of your body beside your fingers?] [Could you say anything so that this couldn't be done?]

2. How would you convince someone that you were telling the truth, by some sign or saying that something would happen if you were lying?

3. What would you do if you and a friend said the same thing together at the same time?

4. How would you decide who was it? What rhymes would you say:

[See check lists for these and questions below]

5. Did you jump rope? What rhymes did you use?

6. Did you know any clapping games? What songs went with them?

7. Did you use any rhymes to make fun of people?

A-7

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IV. Semantics and Syntax

"Now I'd like to turn to some more serious questions, about some words that we use every day, but don't always think too much about what they mean."

A. Common sense.

1. What is common sense?
2. Do most people have it?
3. Have you met anyone who you thought had a great deal? What kind of thing would he do, what kind of a person is he?
4. What about some who had none, or very little?
5. If I say that 2 and 2 are 4, is that common sense, or is it something else?
6. If a little girl fell into the river, would it be common sense, to jump in and pull her out?
7. Do people get more common sense as they get older, or is it just something you're born with?
8. Could you say of someone, "he is very intelligent but he has no common sense?"
9. . . . "He's very smart, but has no common sense?"
10. . . . "He's very wise, he has wisdom, but no common sense?"
11. . . . "He has good judgment, but no common sense?"

B. Danger of Death.

1. Have you ever been in a situation where you thought there was a serious danger of your being killed? That you thought to yourself, "This is it?"
2. What happened?
3. How did you feel afterwards?

C. The shoelace.

"Now I'd like you to do something for me, in the way of a puzzle, or rather to do something difficult with language. You tie a shoelace every day. Can you tell me how to tie a shoelace, without using your hands, as if I were blind, or on the other end of a telephone?"

D. Successful man.

1. Finally, I'd like to ask you to define something. A successful man. What is a successful man?

A-8

V. Pronunciation. [text of readings on folowing pages]

1. [Give informant 5 cards for "When I was 9 or 10 . . ."] "I'd like you to read the story on these cards, as naturally as possible. It's a story told by a teenage boy, and if you can imagine you were telling it yourself, we'd like to see how naturally you can read it."

2. "Now would you please read this list of words, as rapidly as you can." [Hand informant "bat,bad.."list]

bat	pad	have
bad	pass	has
back	pal	razz
bag	cash	jazz
batch	can	hammer
badge	half	hamster
bath	past	fashion
bang	ask	national
pat	dance	family

3. "And this short list . . ." [Hand informant "Paul, all.."list]

Paul	coffee	talk
all	office	taught
ball	chalk	dog
awful	chocolate	forty-four
	chock	

4. "Thank you. Would you please count from one to ten."

   "Where is the tip of your tongue when you first <u>begin</u> to say '<u>ten</u>'?"

   "When you start to say '<u>den</u>'?"

5. "Now would you please say for me the days of the week and the months of the year . . ."

6. "Here's one more thing I'd like you to read for me if you will. It's another story, perhaps a little better than the other one." [Hand informant cards (a-e) for "Last Saturday night . . ."]

7. "You've just used the pairs of words you see printed on this card." [Hand "same or different sound" card to informant.] "Would you please read these words again, and after each pair, say whether they <u>sound</u> the same or different?" [When informant reads last two items, add, "Do they rhyme?]

dock	dark	Mary	merry	sure	shore
pin	pen	guard	god	since	sense
which	witch	"I <u>can</u>!"	"tin <u>can</u>"	do	dew
beer	bear	voice	verse	source	sauce
ten	tin	poor	pour	mirror	nearer
		finger	singer		

A-9

Text for concentrating five phonological variables.
[Underlining added to indicate concentration of the variables.]

When I was nine or ten, I had a lot of friends who used to come over to my house to play. I remember
Zero a kid named Henry who had very big feet, and I remember a boy named Billy who had no neck, or at least none to look at. He was a funny kid, all right.

We always had chocolate milk and coffee cake around four o'clock. My dog used to give us an awful
(oh) lot of trouble: he jumped all over us when he saw the coffee cake. We called him Hungry Sam.

We used to play Kick-the-can. One man is "IT": you run past him as fast as you can, and you kick a tin can so he can't tag you. Sammy used to grab the can and
(eh) dash down the street--we'd chase him with a baseball bat, and yell, "Bad boy! Bad! Bad!" But he was too fast. Only my aunt could catch him. She had him do tricks, too: she even made him ask for a glass of milk, and jump into a paper bag.

I remember where he was run over, not far from our corner. He darted out about four feet before a car,
(r) and he got hit hard. We didn't have the heart to play ball or cards all morning. We didn't know we cared so much for him until he was hurt.

There's something strange about that--how I can remember everything he did: this thing, that thing, and the other thing. He used to carry three newspapers
(th) in his mouth at the same time. I suppose it's the same
(dh) thing with most of us: your first dog is like your first girl. She's more trouble than she's worth, but you can't seem to forget her.

A-10

Text for phonemic contrasts.
[Underlining added to indicate members of minimal pairs.]

Last Saturday night I took Mary Parker to the Paramount Theatre. I would rather have gone to see The Jazz Singer myself, but Mary got her finger in the pie. She hates jazz, because she can't carry a tune, and besides, she never misses a new film with Cary Grant. Well, we were waiting on line about half an hour, when some farmer from Kansas or somewhere asked us how to get to Palisades Amusement Park.

Naturally, I told him to take a bus at the Port Authority Garage on 8th Avenue, but Mary right away said no, he should take the I.R.T. to 125th St., and go down the escalator. She actually thought the ferry was still running.

"You're certainly in the dark," I told her. "They tore down that dock ten years ago, when you were in diapers."

"And what's the source of your information, Joseph?" She used her sweet-and-sour tone of voice, like ketchup mixed with tomato sauce. "Are they running submarines to the Jersey shore?"

When Mary starts to sound humorous, that's bad: merry hell is sure to break loose. I remembered the verse from the Bible about a good woman being worth more than rubies, and I bared my teeth in some kind of a smile. "Don't tell this man any fairy tales about a ferry. He can't go that way."

"Oh yes he can!" she said. Just then a little old lady, as thin as my grandmother, came up shaking a tin can, and this farmer asked her the same question. She told him to ask a subway guard. My god! I thought, that's one sure way to get lost in New York City.

Well, I managed to sleep through the worst part of the picture, and the stage show wasn't too hard to bear. Then I wanted to go and have a bottle of beer, but she had to have a chocolate milk at Chock Full O'Nuts. Chalk this up as a total loss, I told myself. I bet that farmer is still wandering around looking for the 125th St. Ferry.

A-11 VI. Subjective evaluation

A. Subjective reaction test

"Now I'd like to get your reactions to some samples of speech from New York City. On this tape, I have some sentences read by New Yorkers, from the same story which you have just read. Let us suppose that you were a personnel manager, and one of your points on which you rated everyone is their speech. Of course, you wouldn't hire them on their speech alone, but you would take it into consideration. This form shows the kind of rating scale you might use. [Explain.] You might think of it as a scale going from perfect speech on the top, to absolutely terrible on the bottom.

Each sentence will be spoken once, and then repeated. Listen to the first time, make up your mind, then hear it again, and if you have decided then, make a mark across the line at any point, on a dash or in between."

[Play test tape from "When I was 9 or 10 . . ." readings.]
[Pause at No. 11 for a rest; ask the informant what he is listening for, if he notices any words . . . or if he is just reacting to the overall impression. Compliment him on the ease with which he makes up his mind.]

B. How many different speakers do you think were on this tape? [Write this in the lower right corner.]

C. Self-evaluation test

[Play sample pronunciations, and write down informant's opinion, with any new versions of his own, on the reverse.]

[On second series of each word, count "1, 2, 3, 4" after each pronunciation.]

	1	2	3	4
"cards"	[kɑṛdz]	[kɑɚdz]	[kɑ˔ᵊ.dz]	[kɒ:dz]
"chocolate" [1st vowel:]	[o:˔ᵊ]	[ɔ˙ ˔]	[ɔ˙]	[ɒ˙]
"pass"	[pɪ˙ ᵊs]	[pæ˔s]	[pæ˙s]	[pa˔s]
"thing"	[seɪmθɪŋ]	[seɪmtθɪŋ]	[seɪmtɪŋ]	
"then"	[džʌsð ɛn]	[džʌsdð ɛn]	[džʌdɛn]	
"her"	[aɪtoᵛldhɝ]	[aɪtoᵛldhɜ]	[aɪtoᵛldhʌ]	
"hurt"	[ɪt hɝt]	[ɪt hɜ:t]	[ɪt həɪt]	

VII. Linguistic attitudes

1. What do you think of your own speech?

2. Have you ever tried to change your speech? What particular things about it?

3. Have you ever taken any courses in speech? What did the teacher mention in connection with pronunciation?

4.a. What do you think of New York City speech?

b. Have you traveled outside of New York City? [If so] did people pick you up as a New Yorker by your speech?

c. Do you think that out-of-towners like New York City speech? Why?

d. What do you think of Southern speech as compared to New York City speech? [If Negro, distinguish Negro vs. white speech]

e. Have you heard Mayor Wagner talk? As far as his speech is concerned, not his politics, but his way of talking, how do you like it? [Same question for Rockefeller]. Which do you like better? [Probe if time permits for opinions on other speakers the informant thinks are good or bad.]

5. Going back to the time when you were growing up, I'd like to get some idea of the kind of speech that your friends used. Were most of your friends [same race or religion as informant]? Did you have any friends who were [other races and religions].

6. [If time permits, probe for any incidents where speech was a factor in disagreements of the group.]

VIII. Variant pronunciations.

"If someone should come to you, say a high school student, and ask you which of these pronunciations is correct, which would you say?" [After first item, add: "Is this the way you would usually say it? Let me know if there's a difference between the correct way, and the way you might usually say it, for any of these words."]

1.	[dž̆ovʊsɪf]	or	[dž̆ovʊzɪf]
2.	[kætš̆]	or	[kɛtš̆]
3.	[təmeɪto]	or	[təmɑto]
4.	[daɪpəz]	or	[daɪəpəz]
5.	[ɑnt]	or	[ænt]
6.	[ɔftən]	or	[ɔfn]
7.	[gərɑdž̆]	or	[gərɑ:ž̆]
8.	[hjumərəs]	or	[jumərəs]
9.	[veɪz]	or	[vɑ:z]
10.	[lɛnθ]	or	[lɛŋθ]
11.	[fɛbruɛri]	or	[fɛbjuɛri]
12.	[kætšəp]	or	[kɛtšəp]
13.	[ɛskəleɪtə]	or	[ɛskjuleɪtə]
14.	[nɪu]	or	[njɪu]
15.	[tjɪun]	or	[tɪun]
16.	[ævənɪu]	or	[ævənju]
17.	[bikɔs]	or	[bikɔz]
18.	[hæf]	or	[haf]

IX. Form for self-evaluation test and index of linguistic insecurity

You are about to hear several different pronunciations of the words listed below. All of these are used by some speakers of American English. Circle the number of the pronunciation which is closest to the one you usually use.

"cards"	1	2	3	4
"chocolate"	1	2	3	4
"pass"	1	2	3	4
"thing"	1	2	3	
"then"	1	2	3	
"her"	1	2	3	
"hurt"	1	2	3	

You are about to hear two possible pronunciations of the words listed below. Circle the one you believe is <u>correct</u>. Then check the one you usually use.

Joseph	1	2	length	1	2
catch	1	2	February	1	2
tomato	1	2	ketchup	1	2
diapers	1	2	escalator	1	2
aunt	1	2	new	1	2
often	1	2	tune	1	2
garage	1	2	avenue	1	2
humorous	1	2	because	1	2
vase	1	2	half	1	2

APPENDIX B

ANONYMOUS OBSERVATIONS OF CASUAL SPEECH

One of the fundamental problems which is treated in this study is that of eliciting casual and spontaneous speech in the context of the formal linguistic interview, which normally evokes careful speech only. In Chapter IV, methods for obtaining records of casual speech within this framework were described. In order to verify the results, it is necessary to compare them to records of casual speech gathered outside of the context of the linguistic interview. The department store survey described in Chapter III is one such method. Another source for such casual speech is the large bulk of anonymous observations on the streets of the Lower East Side, made in the course of the exploratory interviews. The first excerpt given below shows a section of spontaneous speech of working class and lower class young adults which may truly be called the language of the streets. The second is a set of observations made in a middle class area, showing the type of (r) usage which may be heard in every-day conversation.

I. The Punch-Ball Game

At the corner of Stanton and Ridge Streets on the Lower East Side of Manhattan, there is a punch-ball game organized

every Saturday in reasonably good weather. Fifteen to twenty young men, from about 17 to 25 years old, take part. The area is a tenement district, and most of the residents are members of the lower class or working class. All ethnic groups of the Lower East Side are represented here; in a near-by play-ground, I interviewed several groups of youngsters who included Polish, Czech, Jewish, Puerto Rican, English, Irish and Negro boys. No Negroes actually took part in the punch-ball game: most of the white ethnic groups, however, seem to be represented among the players.

This session of the punch-ball game was recorded on August 11, 1962. I was one of many by-standers by the curb, and the microphone and recorder were concealed in a small satchel.

The punch-ball game is played in the middle of Stanton Street, across the intersection of Ridge Street. A man from the team that is batting is stationed at Ridge Street to hold up the game when a car approaches, or hold up the car if necessary. Punch-ball is played without a pitcher: the batter bounces the ball once [at which point runners can move] and hits it with his fist.

The speech that is recorded here is the language of the streets in its most literal sense. The content falls into two major categories: [1] a running stream of chatter ["Let's go!"], disparagement ["Hey Sol, you stink!"], encouragement ["Atta baby!"], irony ["A miracle, a miracle!"], instructions to the outfielders ["C'mon in, Louie!"], and warnings of cars

-3 approaching ["Hol' it, Walter!"]. [2] Arguments and instructions related to specific points in the game: instructions to base runners ["Hey Walter, try'n' get to third!"], arguments about who was up ["Waddayoulookin'at me for? I tol'ya I was up!"], about whether a ball was thrown from the outfield to the plate, or whether it was cut off by an infielder, thus allowing the man at third to advance to home, and finally, the calculations of the winners ["Double money, double money!"]. The material in the second category is generally clearer in the recording, and gives the best phonological information.

The phonology of this excerpt may be summed up in the following average values, combining the usage of all speakers:

(r)-00

(eh)-22

(oh)-25

(th)-61

(dh)-101

This data fit the information yielded by Chapters VII and VIII on the casual speech of younger men from the lower class and working class. The total absence of (r-1) is accompanied by a preponderance of long monophthongs: [dɛ:], there; [fɔ:], for; [skɔ:], score, with only occasional off-glides. The (eh)-(oh) usage of the speakers places this group in the IIc quadrangle of Figure 1, Chapter XII, along with other younger Catholic male speakers from the two lower classes. The use of (th) and (dh) is typical of the younger speakers of these two classes, as shown in Table 10 of Chapter IX.

B-4 The /ʌy/ phoneme occurs freely in this record, especially in third, but the constricted vowel [ɜ] is also heard. From the information given in Table 3 of Chapter IX, we can infer that those who use the former vowel are probably lower class speakers, while the latter is more apt to be used by working class New Yorkers of this age group.

For some of these speakers, (ay) and (aw) show no nucleus-glide differentiation, parallel with the group indicated in Figure 2 of Chapter XII. Others show a slight tendency towards the backing of (ay), but more show fronting of (aw). This tendency is in accord with the correlated (eh) and (oh) values shown above. This group of speakers uses only moderately high (oh), and obeys the general correlation of the four variables shown in Figure 4 of Chapter IV. If, on the other hand, one records the casual speech heard in the Grand Street area, the (oh) usage tends to (oh-1) quite frequently and (eh) shows lower vowels.

The high ingliding vowels /ih/ and /uh/ heard in this section are frequently long, lowered and centralized monophthongs, indicating the low merger with the mid vowels discussed in Chapter XII. The vowel /ih/ of here is heard several times as a central vowel, not far from [ɜ] and rounded, as in [lɛsgɛsmovəhɜ:] let's get someone over here! Only one example of /uh/ is heard, in just to make sure, as (oh-1).

The text is given on the right in phonetic transcription, and on the left in regular orthography. Since a great many diacritics would be needed for the various values of (oh),

3-5

these values are indicated here as superscripts for [ɔ], using the code numbers for the values of the variables as used in this study. No intonation or stress patterns are indicated, except for occasional extra-heavy stress. The word breaks are to give an approximate idea of timing.

Text of the Punch-Ball Game

Hey Walter, try 'n' get to third!	[hei wɔ^{3}ɪtə traiɪngɛt:ə θɜ˞^{I}d
Hey I'll coach myself!	hei aɪɬ koutš maisɛɬf
Hol' it, Walter, hol' it!	houlɪt wɔ^{3}lə houlɪt
Tag up, Walter, tag up!	tɛ:˞gʌp wɔ^{3}lə tɛ:˞gʌp
Run, run! Score now!	rʌn rʌn skɔ:^{2} naʊ
Hol' it, hol' it, hol' it!	hŏʊ ɪt hŏʊ ɪt hŏʊ ɪt
Atta baby!	ə̆tə beɪ•bi
One out, one out...	wʌn a˗ʊt wʌna˗ʊt
A miracle, a miracle!	əmɪrəkəɬ əmɪrəkəɬ
Hey, you stink Sol!	hei:justĭŋk sɑ•˞ɬ
WhatayouthinkI'mrunning-	wʌtəjuţɪŋkamrʌnɪŋ-
along to get to third	loŋţgɛţ^{ə}θɜ^{I}d
base for?	beɪsfɔ^{2}
He just threw it. I was standing around. . What a thing to do...	hidžʌsθruɪt aiwəz ştɛ•ndɪn araʊnd wʌţ ə̆tɪŋţədʊu
C'mon in, Louie!	k^{ə}mənɪn lu:i
Awright, hol'it! There's one out.	ɔraɪt hŏʊlɪt ðəz wʌnæ˗ʊt
Two out. Awright, Al, you're up...	tu aʊt ɔraɪt æ:ɬ jɚʌp
You're up, Allen, you're up!	jɚʌp ælən jɚʌp
Allen, you're up!	ælən jɚʌp
Gotta get this out...	gaţə gɛt ðɪs a˗ʊt
Hey--good thing I did go...	hej gʊd ðɪŋ aɪ dɪd goʊ
You ain't kiddin'...	jʊu eɪnt kɪdɪn
otherwise he'd a been out...	ʌðəwaiz hidəbɪn aʊţ-
Somebody picks the ball up... Go!	sʌmbʌdi pɪks ðe bɔ^{3}l ʌp goʊ
Out, out!	a˗ʊt ă̆ʊt
...didnget up! Hey, you didn't get up?	dɪngɛţʌp heiju dɪ^{d}ngɛd̥ʌp↑
Why'nyousayyouwzup? I said I was up here...	wainjuseijuwzʌp ai sɛdaiwəzʌphiə

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Whaddayoulookinatmefor? I tol'ya I was up!	wʌdəjulʊkɪŋəmifɔ^{3} aɪ „ toʊljəaiwᵊzʌp
I ain't up yet!	ai ɐint ʌpjɛ:t
A man over here!	ə mɛ̃:n oʊvə hɪ:$^{\perp}$
Le's have a man overtohere!	lɛshæᵀv ə mɛ̃:$^{\perp}$n oʊvətəhɜ:$^{\perp}$
Le's get someone over here!	lɛsgɛsmoᵁvʌhɜ:$^{\perp\top}$
Hey, I'm up this series!	hei a•mʌp ðɪs:iriz
Atta baby! Atta baby! [applause]	æt̬əbeibi
Attawaygo, Bref...	æt̬əwejgoʊ brɛf
Hol'it Al!	hoʊ̈l ɪt æ:ᵀɬ
Run!	rʌn
Run it, run it!	rʌnɪt rʌnɪt
Stay there!	st̬ei dɛ•
C'mon, c'mon, c'mon!	kmɑn kmɑn kmɑn
run it, run it, run it!	rʌnɪt rʌnɪt rʌnɪt
Safe, safe!	seɪf seɪf
C'mon to third! Stay there!	kmɑntəθɜ^{1}d st̬ej dɛ•
Third!	θɜ̈d
Who's up?	huᵀzʌp
We're all mixed up here!	wi ɔ:^{3}lmɪkstʌphɪ:$^{\perp}$
They got the whole side over here!	ðeigɑtðə hoʊl saɪd oʊvəhiə
Wait, wait, wait!	wei wei wei
...in the infield, Carmine! You was throwin' to the plate!	ɪn ði ɪnfiɬd kɒ•maɪn juwztrowɪntd pleɪt
Get outa here! You threw the ball home!	gɛ:d̥aᵀʊt̬əhɪ jutru d̥əbɔlhoʊm
...t'the plate!	tdə pleɪt
Nobody made a cut-off that ball!	nobʌdi meɪdəkʌtɔfðə bɔ:^{2}
There were three guys over there!	ðɛw θrigaizoʊvə d̥ɛə
Nobody was hol'in the plate at all.	nobʌ̊di wez hoʊlɪn ðə pleɪt ətɔɬ
Hey, Carmine, you threw that ball right in the infield!	heɪ kɑmaɪn̥ jutᶿru d̥æt bɔ^{2}l raɪtɪnði ɪ̊nfil
...nobody cut off th' ball! Charles ain't at fault.	nobʌdi kʌt̬ɔfdbɔɬ tšɑz ɐint ə fɔɬt
Hey Winky, you playin' a kid game?	hejwɪŋki jʊuplejɪnə kɪd geɪm
You throw the ball home?	jəθroᵁ də bɔ^{3}l hoʊm
There was nobody at home!	ðɛweznoʊbʌdi:hoʊm
You threw the ball to the infield!	jutruwdəbɔ•təd ɛɪn fɪᵊɬ

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You were standin' on second!	juwstæn+nansɛk+nd
You threw the ball home.	jutruḏəbolhoʊm
They know it! Nobody cut off that ball!	deɪ noʊɪt nobʌdi kʌṯ ɔ³f dðæ bɔ:²
Nobody cut off that ball!	nobʌdi kʌṯ of ḏæt bɔ˞
Call it!	kolɪt
All right, go back to second! Go ahead!	eʔaɪt goʊbæktə sɛk+ŋ goˀ ᵊhɛʔ
What an umpire!	wʌṯə ʌmpaiᵊ
All right, two outs.	araɪt tu aʊts
Le's go!	lɛsgoʊ
Hol' it up, hol'it up!	hoʊlɪṯʌp hoʊl: ɪ: ʌp
Two outs, two out...	tu aˀʊts tu aˀʊt
Hey Joe, hold that guy at third! Hold that kid!	hei džoʊ hoʊl ḏæt gai et tᶿ3ɪd hoʊl ḏæt kɪd
All right, I'll watch him!	ɔraiʔ alwætš+m
Watch the line, Rich! Go back a step, just to make sure!	watšðəlaɪn rɪtš goʊ bæk a stɛp džʌstə mek šɔ¹
All right, y' ready?	əraiʔ jᵊrɛdi
These guys come jumpin' out...	dðiz gaiz kʌm džʌmp+n aʊt
Hol' it up, Walter!	holɪṯʌp wɔ³lə
Hold it up, Walter!	hoʊldɪṯʌp wɔ²ltʌ
I got it, I got it!	aɪgaṯɪt aɪgaṯɪt
One out!	wʌn aʊt
Hey, Joe!	hei džoʊ
All right, le's go! One out...	ɔrailɛs goʊ wʌn aʊʔ
Hey, Joe!	hei džoʊ
All right, ready?	ɔrai rɛdi
Watch the line!	watšðəlain
Straight away!	streɪṯəweɪ
All right, go ahead, Joe...	əraɪt gʌ·ᵊd džoʊ
All right, kid's up, Red's up!	ɔ:rai kɪdzʌp rɛdẕ ʌp
...see what I mean?	siwʌṯaimin
All right, when he hit's the ball, go!	ɔraiʔ wɛnihɪtsðᵊbɔ²l go
Bounces it, when he bounces it!	baˀʊns+z ɪt wɛnibaˀʊns+z ɪt
Bounces the ball, when he bounces it!	baˀʊns+z ḏə bol wɛni baˀʊns+z ɪt

Hol' it up, Red! Hol' it up, hold it up!	hoʊlɪt̬ʌp rɛɛ$^{?}$ hoʊlɪ ʌp houldɪt̬ʌp
Go, go, go!	goʊ goʊ goʊ
Run it, run it!	rʌnɪt rʌnɪt
Atta baby!	æt̬əbeb̬i
That's all, that's all!	ðætsɔ^{3}ɬ ðætsɔ^{3}ɬ
How many innings that game?	haʊmɛni ɪnɪŋz d̥æt geɪm
Twelve innings, double money, double money!	twɛɬvɪnɪŋs dʌb̥ɬ mʌni dʌb̥ɬ mʌni
Double up the money! Double money...	dʌb̥ɬ ʌpðə mʌni dʌb̥ɬ mʌni
Good hit, Red!	gʊd hɪt rɛd
C'mon, double up!	kəmɑn dʌbəɬ ʌp

II. The Lunch Counter

The following record of (r) pronunciation in casual speech was made at a lunch counter on the corner of Grand and Madison Streets, on September 5th, 1963, between 8:30 and 9:00 P.M. This location is in the center of the middle class cooperative apartment area, but also borders on a lower class project area, the Vladeck project.

The transcriber, myself, was seated at the lunch counter. Most of the speakers who were recorded were buying something at the candy counter, or buying soda to take out from the counterman at the lunch counter.

The sparsity of notes which might identify the class position of the speaker illustrates the difficulty of using such data as primary evidence of speech patterns. On the other hand, in the light of Chapter VII, we can see some regularity here. The young counterman who used all (r-1)'s was evidently a college student; his manner was cultivated,

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Sex	Race	Age	(r) values	Notes
F	W	40-50	0000000000	leather jacket, gold sandals
F	W	40-50	0	
M	N	20-50	00	
M	W	20-25	00	
M	N	20-25	0	
M	W	14-15	01	Orthodox Jewish: wears yarmulke
M	W	8-12	00	
M	N	8-12	0	
M	N	20-30	1111	tending counter
F	W	15-18	00	
F	W	40-50	0	
F	W	40-50	0000000	
M	W	15-16	00	
M	W	20-25	0	
M	W	30-35	1	tie, hat, white short sleeve shirt
M	W	50-60	1	

and he approached each customer with, "Good evening, may I be of service to you?" The other clear identification of middle class status--the hat, tie and white shirt--was also associated with (r-1).

-1

APPENDIX C

ANALYSIS OF LOSSES THROUGH MOVING OF THE MFY SAMPLE POPULATION

This discussion is an analysis of the type of losses sustained by the original MFY sample population through moving in the two year period between the MFY survey and the ALS survey. The sample population of native English speakers which was selected for study consisted of 312 individuals. Eight of these died, or became incapacitated, and 109 moved, leaving the ALS target sample of 195 subjects. By analyzing the social characteristics of the group who moved, we will be able to determine in what way the ALS target sample does or does not represent the original population of native speakers present on the Lower East Side in 1961.

The distribution of speakers who had moved or died, according to racial and ethnic group, may be seen in the following table.

TABLE 1

LOSSES FROM MOVING WITHIN EACH ETHNIC GROUP

		%for 2-year period
Negro		31
Jewish		30
Orthodox	30	
Conservative	30	
Catholic		38
Protestant		64

-2

The only serious discrepancy here is with the Protestant group, which shows twice as high a rate of moving as the others. This is what we would expect from the rootless character of this group as described above. The losses from the Protestant group in the sample need not be a serious source of concern. It appears that not more than one or two of the sixteen who had moved were natives of New York City, and therefore would in any case not have appeared in the most important of the studies to follow. Chapter VI.

The other groups are approximately the same as far as rate of moving is concerned, with the Catholics showing a somewhat higher figure. It now appears that 15 per cent a year is closer to the rate of moving which is characteristic of a large part of the sample, and we need not anticipate any serious distortion in the ethnic composition of the sample through the loss of the 109 who had moved.

The actual numbers of those who had moved and those who had died are given in Column 4 of Table 3, Chapter VI. Inspection of this table shows that there is a more serious problem in the socio-economic composition of those who had moved. The distribution is illustrated in the following table.

TABLE 2

LOSSES FROM MOVING IN EACH CLASS GROUP

	% for 2-year period
Lower Class, 0-2	26
Working Class, 3-5	38
Middle Class, 6-9	42

This progression shows a regular pattern, and the loss of the moved population therefore prevents us from obtaining as good a representation from the higher social classes as compared with the lower.

A closer examination of the data in Table 3, Chapter VI, shows that the progression noted above is not due to factors which affect all ethnic groups equally, but rather to the differential behavior of the two marginal groups: the Negro and the white Protestants. The following table shows a breakdown of the moved population by both ethnic and class divisions.

TABLE 3

LOSSES THROUGH MOVING FOR ETHNIC AND CLASS GROUPS

Class	Negro	Jewish, Orth.	Jewish, Cons.& Ref.	Catholic	Protestant
0-2	21	33	33	32	00
3-5	23	23	28	40	100
6-9	75	36	37	40	75

This table shows us that the three central groups have lost approximately the same percentages in the three class division. However, the Negro group has moved out almost entirely as far as the 6-9 class group is concerned, and the Portestant group shows a total loss of the small 3-5 group representation.

As far as the Negro population is concerned, this loss is a serious drawback in an attempt to depict the original composition of the MFY survey. The loss is heaviest in the

C-4 upper middle class group [9 on the MFY socio-economic index], where five out of seven had moved and could not be located. However, it should be noted that this group was heavily over-represented in the original MFY survey as compared to the Negro population of the city as a whole. The mean income of the Negro MFY respondents was approximately $1,000 higher than the mean income of Negro families in New York City. Therefore the view of Negro speech obtained in this survey will not be as seriously impaired as if the original sample had been more representative of New York City.

The complete loss of the working class Protestant group of six speakers is also unfortunate, but again, it may be noted that these informants were mostly not native to the city.

One of the most serious problems in the composition of the population is the proportion of men and women. In the original sampling of the Lower East Side, it was found that women outnumbered men by five to four. The percentage of male respondents in the population through the various selections is shown below.

TABLE 4

PERCENTAGE OF MALES IN SAMPLE POPULATIONS

	%	N
Total MFY sample	45	1225
MFY respondents	46	988
Native speakers studied for ALS	38	312
Remaining ALS population	41	195

We see that a slightly higher percentage of males responded to the MFY survey, closing the gap between male and female. However, the proportion of males among the native speakers is considerably less, only a little more than a third of the total population of native speakers. The loss of subjects through death and moving re-adjusted the balance slightly in favor of men. Thus in the ALS target population there are 79 men and 116 women.

So far, it appears that the peculiar problem of a secondary survey--the loss through death and mobility--has not shown any serious biases in the remaining population, as far as the three central ethnic groups are concerned. There is another consideration which must be studied--the relationship of the subjects to the city and the neighborhood. Here we find more serious differences in the moved and remaining population.

Local status of the moved population

One of the most important characteristics of a population, as far as linguistic behavior is concerned, is its relation to the older traditions of the community. Individuals who move in and out of an area in the course of a few years do not participate in the local culture which is usually associated with characteristics of local speech, while groups that remain in one neighborhood for generations may have many special features of culture and language. For the entire MFY

population of 1961, who responded to the MFY survey, we have data on how many years they have lived in the Lower East Side, and on the country of birth. We would most like to know their relation to New York City--whether they were born in New York or some other part of the country. However, this question was not asked in the MFY survey, and we only know the answer for the subjects we have interviewed in the linguistic survey. We can compare the moved and remaining population for its relation to the Lower East Side, however, and note any significant differences.

Relationship of the subjects to the Lower East Side was determined by the same criterion used for relationship to New York City: if the subject had been born on the Lower East Side, or had come to the Lower East Side before the age of eight, he was considered a native of the area.

TABLE 5

RELATION OF MOVED AND REMAINING POPULATION TO THE LOWER EAST SIDE

	Native to LES	Lived on LES over 10 yrs.	Lived on LES less than 10 yrs.
Moved	30%	26%	44%
Remaining	47%	28%	25%

This redistribution of the sample population in its relation to the local community, through loss of the less stable elements, is much more marked than this table shows. The two marginal groups, originally 75 Negroes and 25 Protestants, each included only one speaker who was native to the Lower East Side. The comparison of moved and remaining groups is

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therefore meaningless for the Negro and Protestant groups, and we can re-organize the table to include only the central groups--the Jews and Catholics.

TABLE 6

RELATION OF JEWISH AND CATHOLIC POPULATION TO LOWER EAST SIDE BY MOVED AND REMAINING GROUPS

	Native to LES	Lived on LES over 10 yrs.	Lived on LES less than 10 yrs.
Moved	37%	40%	23%
Remaining	64%	23%	13%

This table shows a reversal in the relationship of native and non-native as far as the Lower East Side is concerned: one third of those who moved were born on the Lower East Side, while two thirds of those who stayed were native East Siders.

The effect of this loss on the native status of the three central groups may be seen in Table 7. This represents the resulting increase in the percentage of subjects who are local East Siders as a result of the moving of part of the population.

TABLE 7

PERCENTAGE OF SPEAKERS NATIVE TO THE LOWER EAST SIDE FOR JEWISH AND CATHOLIC GROUPS

	Jewish, Orth.	Jewish, Cons.& Ref.	Catholic
Total speakers before moving	77	54	52
Remaining speakers after moving	88	60	55

-8 The effect upon the various socio-economic groups of this shift is concentrated in the two upper sections, as shown in Table 8, and the total effect is to make these three divisions more comparable in their proportions of local speakers.

TABLE 8

PERCENTAGE OF SPEAKERS NATIVE TO THE LOWER EAST SIDE FOR SOCIO-ECONOMIC GROUPS

	0-2	3-5	6-9
Total speakers before moving	65	56	55
Remaining speakers after moving	67	64	64

The Negro group has very little connection with the Lower East Side from this point of view. If we examine the number of years spent on the Lower East Side by the Negro speakers who have stayed and those who remained, we might be able to see some trend towards the development of a stable population. If the Negro speakers who have remained are concentrated among those who have spent more years on the Lower East Side, this would be evidence of such a trend.

TABLE 9

NEGROES MOVED AND REMAINING BY NUMBER OF YEARS SPENT ON THE LOWER EAST SIDE

	Native to LES	Over 20 yrs. on the LES	10-20 yrs. on the LES	Under 10 yrs. on the LES
Moved	1	0	3	25
Remaining	0	6	14	26

-9

Table 9 shows the actual number of Negro subjects who moved from the East Side, or remained on it, according to their local status. This chart shows some evidence of the development of neighborhood ties among the Negro residents, or at least that the group which has moved out is more mobile than the group which remained--from the point of view of past record as well as present. The effect is more striking when we realize just how mobile is the group of 25 Negro residents who had lived less than 10 years on the Lower East Side and have since moved.

Came to LES less than 1 year before MFY Survey	11
Came to LES 1-2 years before MFY Survey	4
Came to LES 3-10 years before MFY Survey	10

Assessment of the effects of losses through moving

The effect of the two-year lag between the first selection of the sample and the execution of the linguistic survey cannot be overlooked. Most of the losses have been in that section of the community which has the least connection with the traditional speech pattern--if relation to the Lower East Side is an indication of relation to New York City as a whole. In one sense this may make the task of constructing a coherent view of the language system somewhat easier, since it stands to reason that the most highly structured cultural patterns are apt to be those which belong to the most stable sections of the community.

However, the removal of disproportionately large numbers of middle class subjects is a part of a continuing pattern

that is altering the social structure of the city. The existence of this pattern gives rise to other considerations on the effects of the loss through moving.

A certain percentage of those who had moved in the two-year interval will have left New York City for the surrounding suburbs, or moved even farther afield. We have seen that the middle class shows the largest percentage of movers, and this is the group which is most likely to have left the city entirely. In that case, they are no longer a part of the New York City speech community which we are attempting to describe through the survey of the Lower East Side and other means. In this light, we can say that a part of the apparent loss through moving represents those who have removed themselves from the universe under study, and the actual loss through the two-year lag is less than the total described above.

We may also consider that the middle class speakers who had moved out of the city, or moved to areas in Queens or Jamaica which are predominantly middle class, have followed a pattern which is more typical of those with upward social mobility than the group which has remained behind. Those who have fled to the suburbs have differentiated themselves from the large working class population in the Lower East Side even more sharply than those who remain in the Lower East Side. It is also probable that the language behavior of the middle class group that had moved shows even greater differentiation from the working class language pattern.

It would be possible to study the composition of those

2-11

who had moved by several ways. They might be pursued by mail or telephone to distant parts of the city. However, such methods will result in a heavy bias towards those speakers who are easily located, have telephones listed, or who care to reply to mail forwarded. Another approach would be to interview families which have moved into the vacated apartments, since these replacements are also presumably more mobile than the average. However, in the Lower East Side, a large number of these replacing families are Puerto Rican, and not native speakers of English. We will therefore rely on internal comparison of the speakers who remain in order to assess further the effect of this loss of mobile subjects on the total results.

The death of six of the informants in the course of the two-year lag was an additional loss to the survey, particularly since all six of the speakers were native to the Lower East Side. The effect of the loss, however, was in a direction contrary to the loss of informants through moving, and therefore offset this larger defect in the population studied. There is therefore reason to believe that the social stratification of language which we will observe in the remaining population is a minimal stratification: that if the population had been surveyed in 1961, we would probably have found stratification that was equally sharp or sharper.

)-1

APPENDIX D

ANALYSIS OF THE NON-RESPONDENTS: THE TELEVISION INTERVIEW

In Chapter VI, the derivation of the sample for the Lower East Side survey was discussed, and the characteristics of the ALS target sample given. The regular ALS linguistic interview was completed for 63% of that sample. The non-respondents will be analyzed in this appendix--first for their social characteristics, and then, by means of the television interview, for their linguistic behavior. The television interview was described generally in Chapter VI: the questionnaire itself is given at the end of this appendix.

Characteristics of the non-respondents

Table 3 of Chapter VI showed an ALS target population of 195 individuals. A total of 122 were interviewed through the regular ALS survey procedure, and 33 of the remaining 73 by the television interview. Six of the 195 individuals in the target sample are eliminated when one-third of the Negro working class group is set aside to match the other working class groups. The total ALS response for this comparable sample is then 119 out of 189, or 63%. Of the 70 non-respondents, 33 were studied through the television interview, and

D-2

37 were not sampled. The non-respondents were basically of two types: refusals, and those who could not be reached.

	Refused	Can't reach	Total
Sampled through the television interview	16	17	33
Not sampled	11	26	37
Total	27	43	70

Reasons for non-response. About half of those who refused mentioned the previous survey as a reason for their refusal [although no connection with the MFY survey was stated by the ALS interviewer]. Several of the MFY informants had been inconvenienced by the primary interview, or found it long and tiresome. [Among those who did respond to both surveys, many reported favorably on the MFY interview.] Some informants could not be reached because they were seldom home, worked long hours, or were never located. Another group of those who could not be reached might have been interviewed by the ALS procedure if the time allotted for field work had been extended. Most of the latter are represented in the 17 informants who are labelled can't reach, but who were sampled by the television interview. About a dozen of the informants who were not interviewed made one or more appointments with the interviewer, but did not keep them.

Social characteristics of the non-respondent. The social characteristics of the non-respondents by class, ethnic group, age and sex, are shown in Table 1.

TABLE 1

SOCIAL CHARACTERISTICS OF THE NON-RESPONDENTS

	Television Interviews		Not Sampled		Total Non-respondents	
	Ref.	CR	Ref.	CR	Ref.	CR
Total	16	17	11	26	27	43
SEC Groups						
0-2	7	3	4	11	11	14
3-5	5	7	4	5	9	11
6-8	3	4	2	9	5	13
9	1	3	1	1	2	4
Ethnic Groups						
Jews	4	11	2	12	6	23
Italians	4	3	3	5	7	8
Negroes	5	1	1	5	6	6
Sex						
Men	5	10	5	18	10	28
Women	11	7	6	8	17	15
Age						
20-39	6	4	3	5	9	9
40-59	8	12	7	14	15	26
60-	2	1	1	7	3	8

Table 1 shows that the losses through refusals and through inability to reach the respondents were greatest among the lower class subjects. A large portion of the losses through refusal were recouped by means of the television interview, so that the major loss remaining is the group of lower class speakers who could not be reached. Many of these subjects were Italians and Negroes; the over-all completion rate [as

-4

shown in Table 1 of Chapter IX] was higher for Jews than Negroes or Italians. Table 1 above shows that Jews showed a much lower tendency to refuse the ALS interview: only one-quarter of the Jewish losses were through refusal, but about half of the Italian and Negro losses. A number of the Jews who could not be located worked in stores until 10 o'clock at night. The fact that there was greater difficulty in interviewing Italians and Negroes than Jews repeats the experience of the MFY interview.

The losses in the male population, considered in Chapter VI, are seen primarily due to unavailability in Table 1. Men showed far less tendency than women to refuse the ALS interview: only one-quarter of the male losses were due to refusal, while over half of the women non-respondents refused. The tendency to refuse was also higher among younger informants, while most of the losses in the older age levels were due to inability to locate the informants.

The tendencies to refuse, or the difficulties of locating informants vary somewhat from group to group. However, the television interview cut across all group lines, and the proportion of those interviewed to those not sampled is roughly equal for most of the categories shown in Table 1. We may therefore conclude that the television interview provided an efficient device for sampling the speech of those who did not complete the longer ALS interviews. If the results of the television interviews show the same patterns of social variation which were shown for the ALS informants, then it

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may be concluded that the ALS survey as a whole reported the speech of the target sample accurately.

Analysis of the Television Interview

First, it is necessary to consider the reasons why all of the non-respondents were not sampled through the television interview. There was only one abrupt refusal to the television interview which prevented us from obtaining sufficient data on the speech of the subject, and this person was afterwards studied by other means.

A certain number of subjects simply refused to come to the door, or to the telephone. In some cases, their wives or husbands had apparently taken on the task of protecting them from any contact with strangers, and it was not possible to overcome this barrier. Others could not be located: they apparently worked odd hours, and were not home at any time that the interviewers could reach them. Another group of non-respondents were junior members of the household, and spent most of their time elsewhere. A majority of these subjects could have been reached if additional time was assigned to the problem. However, the results of the department store survey, the ALS survey, and the television interview indicate that further field work would not be likely to yield data significantly different from that already on hand.

In conducting a linguistic survey there is always the suspicion that those who refuse do so because they are less

interested in language, less sensitive to linguistic differences, or perhaps hostile to universities and the pursuit of knowledge in general. Such a description fits only a small minority of the non-respondents to the ALS survey. Many of those who refused did so because they were busy, suspicious, or annoyed by the primary survey. In the cases where such suspicions were overcome, the informant often showed an abrupt change of attitude, and great interest in the survey. Most of the group who could not be reached did not appear to differ in social or personal characteristics from the population as a whole except in their working hours.

By means of the television interview, it was possible to check the speech behavior of the rudest and roughest of the refusals, since most of them were sampled by this device. It might be said, as a result of studying Table 1, that lower class Negro and Italian women were prone to refuse the ALS interview because they are self-conscious about their lack of education, or else because they are less interested in language than most people. Nine of these subjects are included in the television interview. It might be said that the ALS interviews as a whole show a shortage of men, especially Italian working class men. There are fifteen men in the television interviews. In general, the television interviews represent that portion of the non-respondents who showed the lowest rates of completion for the ALS interviews. Therefore the following discussion will report the speech of those subjects who were the most different in their social characteristics

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from the 122 ALS informants.

Calibration of the television interviews. In order to compare the results of the television interviews to those of the ALS interviews, it was necessary to calibrate the former against the latter. This was done by selecting by a random process ten ALS informants who had already been studied through the regular linguistic interview, and re-interviewing them through the television interview. In no case did any of these informants show any suspicion that there was a connection between the two interviews, and the results of the television interview are therefore independent of the ALS interview. [These interviews were all conducted over the telephone, and in the cases where the interviewer was the same as in previous contacts, appropriate adjustments in voice quality and intonation were made.]

The average index values for the ten respondents use of the five main phonological variables are shown below, as compared to the results of the ALS interview in Contexts A and B.

TABLE 2

COMPARISON OF ALS AND TELEVISION

INTERVIEWS FOR TEN ALS RESPONDENTS

Variable	ALS Style A	TV Interview	ALS Style B
(r)	17	27	40
(eh)	27	27.5	28
(oh)	21	24	24
(th)	18	13	23
(dh)	38	14	17

D-8

The results for (r) show that the context of the television interview seems to fall between Context A and Context B. The average value for (eh) tends to confirm this, although all three index values for (eh) are very close. The value for (oh) is that of Style B. Finally, the values for (th) and (dh) are lower than either Style A or Style B.

The reliability of these five measures can be assessed by listing the number of individual cases in which the value for the speaker was within 5% of Style A or Style B or in between--but not higher or lower than both Style A or Style B. Only those cases where the variable actually appeared as a variable are considered: where (r) is always 00, or (th) and (dh) always 00, there is little confirmation of the reliability of the television interview.

	Number of variable cases	Number of consistent results	%
(r)	9	7	78
(eh)	9	6	67
(oh)	10	6	60
(th)	6	3	50
(dh)	8	5	63

This table shows that (r) is the most reliable measure, and (th) the least reliable. Since the number of instances of (eh) and (oh) were relatively low, it is understandable that the results for any given individual might not be consistent. The number of instances of (eh) and (oh) were less than five in most cases. However, the greatest number of instances of the variable were provided for (dh), and (th) is often repre-

D-9

sented by more than five occurrences. The reason for the anomaly in (th) and (dh) results is that there is a considerable loss in the audible signals for these consonants over the telephone; all of the sample interviews described above were conducted over the telephone, and most of the television interviews as a whole. In all but one of the consistent cases of (th) and (dh), the value was the lower alternative, that of Style B, contrary to the evidence of (r). Consistent with this hypothesis is the fact that (th) shows the greatest loss: the unvoiced stops and affricates are the most difficult to hear. There is therefore a tendency to hear the affricates as the more common fricatives. If we adjust the values of (th) and (dh) upward by 50%--the margin required to match the results of (r) and (eh)--we then find that all of the (dh) discrepancies are eliminated, and all but one of the (th) discrepancies.

In the following discussion, the absolute values of the variables are of less interest than the social patterns formed by the distribution of the variables. The adjustment of (th) and (dh) made above merely illustrates that these variables continue to be relatively consistent indicators of speech behavior, despite the losses through telephone transmission.

Six of the 33 informants studied, sampled in the television interviews were not raised in New York City. The following discussion therefore concerns 27 New York City television informants.

Social distribution of (r). The class distribution of

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(r) for the 27 informants follows the same pattern as that for the ALS informants in Figure 11, Chapter VII

	SEC			
	0-1	2-5	6-8	9
(r)	02	09	23	53
[N:	3	14	7	3]

The distribution of (r) pronunciation in other respects is also similar to that of the ALS informants. Excepting class 9 [which is primarily a male category], the average performances of men and women are the same: (r)-12 and (r)-10 respectively. Ethnic comparisons are difficult to make because all but one of the Italian speakers are working class or lower class, and most of the Jews are middle class. As far as age is concerned, the television interviews again show the same pattern as the ALS informants.

The following table shows the same general outlines as Table 4 of Chapter IX,

Age level	SEC 0-8	SEC 9	N:	
20-39	12	66	6	2
40-59	13	35	16	1
60-	02	--	2	0

The relations of the younger and the middle-aged informants in this table generally match the paradigm of case II-B of Chapter IX, showing the introduction of a prestige feature.

Social distribution of (eh) and (oh). The class distribution of these variables is not as regular as that of (r).

The general outlines of Figures 17-20, Chapter VII may be seen, but with some irregularities. This is understandable since even the larger sample showed a great deal of internal fluctuation.

	SEC			
	0-2	3-5	6-8	9
(eh)	24	24	30	27
(oh)	24	22	25	23
[N:	6	11	7	3]

The relations of ethnic groups for these variables were found to be more important than class; yet the present data are again subject to the limitation that the Italians are primarily lower class and working class, while the Jews are middle class. Since the style here is more formal than Style A, the middle class Jewish tendency towards correcting both (eh) and (oh) is strongly marked:

	Jews	Italians	Negroes
(eh)	26	22	29
(oh)	24	20.5	28
[N:	12	8	3]

The Jews show lower vowels for both variables than the Italians; the Negro speakers considerably lower than either, as we would expect from the results of Chapter VIII.

The relations of the age groups fit the patterns shown in Chapter IX quite closely:

	Age		
	20-39	40-59	60-
(eh)	24	27	21
(oh)	20.5	24	26
[N:	8	17	2

The middle-aged group shows the tendency towards correction of (eh) which was noted in Chapter IX. However, (oh) shows no such reversal of the characteristic steady upward movement which illustrates the early stages of change from below. In this table, the television interviews may be considered to have shown a close parallel to the ALS interviews.

Social distribution of (th) and (dh). The initial view of class stratification of (th) and (dh) in Chapter VII used the following class grouping:

SEC	0-2	3-5	6-8	9
(th)	55	30	06	03
(dh)	55	28	14	12
[N:	6	11	7	3]

This table shows the regular pattern of sharp class stratification which is typical of (th) and (dh). A re-grouping according to Figures 14 and 17 of Chapter VII produces even sharper stratification, but somewhat less regular:

	SEC				
	0-1	2-4	5-6	7-8	9
(th)	[100]	40	21	00	03
(dh)	91	25	35	07	12
[N:	3	11	5	5	3]

D-13

Although the numbers here are a little too small to allow such a fine division, it may again be seen that the very high values of (th) and (dh) are typical of the lower class.

The analysis of Chapter VIII indicated that the social class scale, using occupation and education only, gave more regular stratification for (th) and (dh), and resolved the irregularities seen among the lower class groups. A similar distribution appears for the television interviews:

	SC			
	1	2	3	4
(th)	58	47	00	03
(dh)	48	40	10	11
[N:	6	10	9	4]

This table shows the sharp division between the white collar workers [SC 3] and the blue collar workers [SC 2] of the same educational background, and also the differentiation of blue collar workers with different educational backgrounds [SC 1 and 2].

In the light of the evidence on the calibration of (th) and (dh), the following comparison of (dh) against the results of the ALS interviews is instructive:

	ALS Style A	Television Interviews	ALS Style B	Television Interviews plus 50%
SC 1	93	48	70	72
SC 2	44	40	37	60
SC 3	25	10	14	15
SC 4	20	11	07	16

D-14

It is apparent that there is a loss of (dh) perception in the television interviews. However, the important question is that of the over-all pattern of social distribution; it is impressive confirmation that even with the small number of 27 informants, the same general pattern emerges in both groups of interviews.

In Chapter VIII, it appeared that men used more stops and affricates than women. The results of the television interview show the same distribution:

	Men	Women
(th)	31	25
(dh)	39	22

Social distribution of /ʌy/. The use of /ʌy/ by the television informants is parallel to that of the ALS informants. A regular class stratification may be seen in the following table, showing the percentage of informants using /ʌy/ in the television interviews.

	SEC			
	0-2	3-5	6-8	9
% using /ʌy/	75	45	29	00
[N:	4	11	7	2]

Social distribution of (ay) and (aw). The class distribution of (ay) and (aw) is not as regular as that found in the larger ALS sample. The working class shows more nucleus-glide differentiation than the lower middle class.

	SEC			
	0-2	3-5	6-8	9
(ay)	06	18	04	20
(aw)	00	06	03	00

There is agreement here with the ALS survey in the fact that the upper middle class shows a high level of (ay) differentiation, but no (aw) differentiation. This pattern may be seen in Figure 2 of Chapter XII. The development of nucleus-glide differentiation in apparent time is perfectly regular, as shown below:

	Age level		
	20-39	40-59	60-
(ay)	19	08	00
(aw)	04	02	00

In Chapter X, it was shown that men used somewhat less differentiation of (ay), and considerably less for (aw), than women. Similarly, the television survey shows (ay)-12 for women, (ay)-11 for men; (aw)-05 for women, (aw)-01 for men.

Summary

The television interview was designed to study the speech of the non-respondents, in order to confirm the representative nature of the sample of 122 ALS informants actually interviewed. The results of the discussion above show that the agreement is quite close for most patterns of class distribution. The closest agreement is shown by (r); the absolute

levels of (th) and (dh) are lower than the ALS sample, but the patterns of social distribution are the same; (eh) and (oh) are not as regular in class distribution, which was marginal for the ALS sample; because of the disparate social membership of the Jewish and Italian groups in the television sample, close comparison of ethnic distribution is not possible.

For those variables which are involved in linguistic change, the television survey shows a distribution in apparent time which matches that of the ALS survey. The patterns shown by (r), (eh), (oh), (ay), (aw), are almost sufficient in themselves to draw inferences about developments in real time.

It may therefore be concluded that the 26 New York City television informants show the same linguistic behavior as the 81 New York City ALS informants. If the previous studies of New York City had followed a systematic method of selecting informants, the 25 or 30 cases described would have been sufficient to show the outlines of a systematic structure of stylistic and social variation. We may conclude that the structure of social and stylistic variation of language can be studied through samples considerably smaller than those required for the study of other forms of social behavior.

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Questionnaire

for the Television Interview

A. Introduction

"We are checking radio and television reception in your part of New York City: that is, we'd like to find out what kind of a picture the television companies are getting onto your screen."

B. Elicitation of particular forms

1. What channels give you the best reception? the worst? which channels do you watch most often? least often?

four:	(r):	(oh):
thirteen:	(th):	(ʌy):
nine, five:	(ay):	

2. Would you say that the trouble you are having with Channel ____ is very bad, or not so bad? [use (eh-3)]

bad	(eh):

3. At two o;clock in the afternoon, would you say your television set is usually on or off? [use (oh-3)] at four o'clock? at ten in the morning? ten at night?

off	(oh):

4. What kind of an antenna do you have?

antenna	(en):

5. What floor of the building do you live on?

floor:	(r):	(oh):

6. When you look out of the window of the room in which your television set is, what direction do you face? what do you see?

north	(oh):	Empire:	(r):	(ay):
south	(aw):	River:	(r):	

7. When the picture on your set isn't quite right, what do you do to make it a little better?

turn	/ʌy/:

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Questionnaire for the Television Interview [cont'd]

C. General conversation

"That gives us the information we need on reception. If you have another minute, we've been asked to pick up a little information on the programs."

1. Is there any particular show that's been taken off the air recently that you'd like to see back on?

2. Is there any series of programs that you used to watch all the time that you don't watch any more, that you've lost interest in?

3. Is there any particular kind of program that you'd like to see more of?

4. Is there any particular kind of program that you think takes up too much time on the air?

5. There's been some criticism of commercials: some people say that there are too many of them, or that they're too long. How do you feel about that?

6. There's another point that some people criticize: they say that some of the shows on daytime programs are not right for young children. What's been your experience on that? [If bad has been omitted above, ask: Do you think that horror shows are good or bad for young children?]

7. Did your children watch a lot of television when they were growing up? Did you let them watch anything, or did you more or less tell them what they could watch?

D. To determine regional background of informant

1. Some people say that television reception in other cities is better than in New York.

2. Did they have television when you were growing up? Did you listen to the radio a lot? Where was that, in New York City?

E. To determine occupation of informant [to follow B. 7]

1. You know, it seems to be hard to design television sets to suit everybody. It seems to be that people with different occupations use the dials in different ways. Can I ask what is your occupation? [your husband's?]

E-1

APPENDIX E

THE OUT-OF-TOWN SPEAKERS

This discussion will analyze the linguistic behavior of the 37 respondents in the ALS survey who completed full linguistic interviews and who were not raised in New York City. Despite the fact that many of them have spent more than twenty years in New York City, they cannot be considered native speakers; during their formative years, they were not exposed to the traditional dialect of the city. Therefore this group can be used as a valuable check upon the validity of the discussion of New York respondents in Chapters VII and XI.

Any phonological variable which is known to be widespread throughout the United States should show the same patterns for the 81 New Yorkers and the 37 out-of-towners.

Any phonological variable which is being superimposed upon a previously acquired New York City pattern, will also affect the out-of-towners. It may not affect their speech to the same degree, but the general direction of stratification should be similar.

Any phonological variable which is a part of the native New York City pattern, as acquired in pre-adolescent years, should not show stylistic or class stratification in the speech of the out-of-towners.

E-2

Thus in accordance with the three requirements set forth above, we must expect to find the same pattern for (th) and (dh), a similar pattern for (r) in some respects, and no similarity for (eh) and (oh).

As indicated at the beginning of Chapter VII, a majority of the out-of-town speakers are Negroes. The out-of-town evidence must therefore be analyzed for Negro-White differences, whenever these differences are relevant to the questions raised above.

The areas in which the out-of-town speakers were raised are shown in Table 1 below. [The identification of the areas as r-less or r-pronouncing is based upon Map 156 in Kurath and McDavid 1961].

TABLE 1

REGIONAL ORIGINS OF OUT-OF-TOWN SPEAKERS

Negroes		Whites	
r-less regions			
Upper South	2	Eastern New England	3
No. Carolina	7		
Lower South	8		
r-pronouncing regions			
New Jersey	2	North outside of Eastern New England	5
Philadelphia	1	Kansas, Oklahoma	2
Pittsburgh	1	Eastern Pennsylvania	3
	21	Midwest and West	3
			16

E-3

The three informants from Eastern Pennsylvania are from the coal mining areas around Wilkes-Barre. They are lower class informants with Italian or Slavic background, who have been in New York City over twenty years.

The white speakers from out-of-town fall into two radically different types: those from the lowest social classes and those from the middle class. On the other hand, the Negro speakers are well represented in both lower class and working class, with few middle class speakers.

TABLE 2

CLASS DISTRIBUTION OF WHITE AND NEGRO OUT-OF-TOWN SPEAKERS

		White	Negro
Lower class	0-2	5	10
Working class	3-5	2	9
Middle class	6-9	9	2
		16	21

We can turn first to the (th) and (dh) variables. As far as we know, these are not limited to New York City in their distribution, and we should be able to see the same type of stratification in out-of-town speakers as in New Yorkers.

Figure 1 shows the stratification for white speakers for (th) and Figure 2 for (dh). The two working class speakers are included with the lower class; with the small numbers of informants on hand, it would be difficult to show any finer stratification. Since the working class is missing, we can expect to find a very great gap between the upper and lower levels

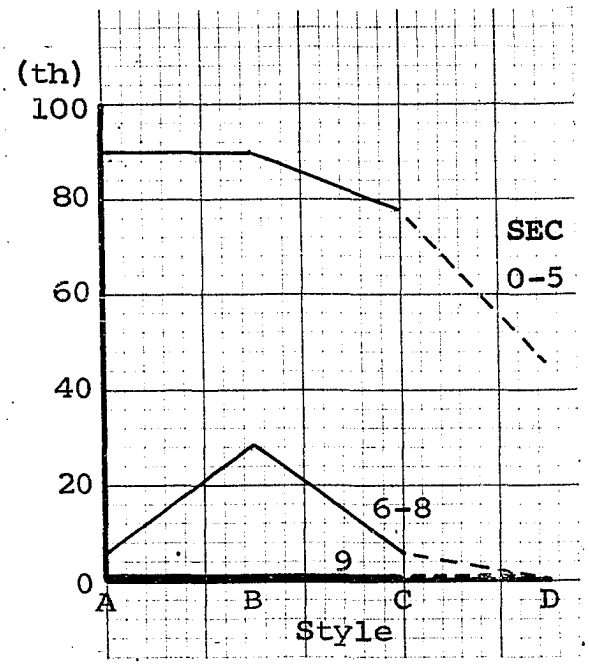

Figure 1

Class stratification of (th) for white out-of-town respondents

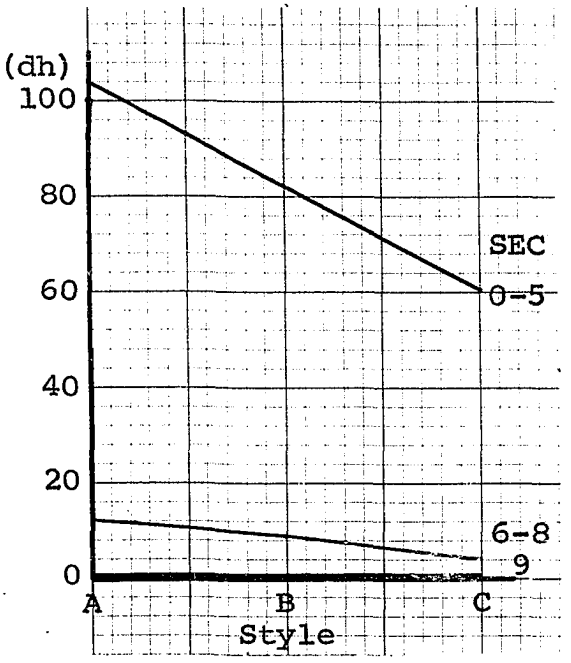

Figure 2

Class stratification of (dh) for white out-of-town speakers

of the diagram. This produces the highly differentiated results of Figures 1 and 2, with a group of speakers who use a great many stops and affricates, a lower middle class group with very low use, and two upper middle class speakers who used none at all. This pattern is not dissimilar to that seen in Figures 4 and 5, Chapter VII, for New York City, but with even greater extremes for these variables.

The situation for the Negro speakers is quite different. Figure 3 shows that (th) is not a social variable at all for Negro speakers. Indeed, most of the items which are responsible for the level of the index above zero are the substitution of (f) for (th). Stops and affricates are seldom heard. In the case of (dh), Figure 4, there is widespread use of stops, though not as much as with white speakers. Affricates are rare.

E-5

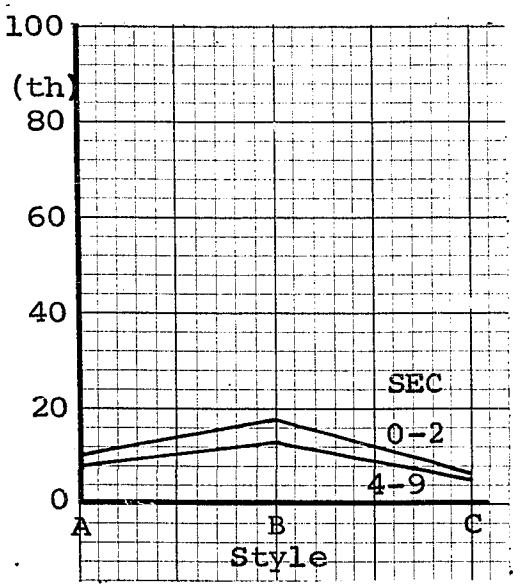

Figure 3

Class stratification of (th) for Negro out-of-town speakers

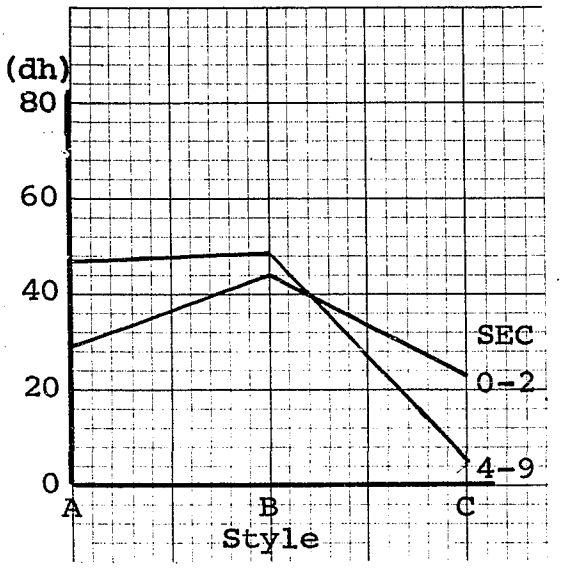

Figure 4

Class Stratification of (dh) for Negro out-of-town speakers

There is no tendency for the level of the index to fall from Style A to Style B, but there is a sharp decline for Style C. The reason for this pattern [which is repeated for lower frequencies of (th)] may be that Negro speakers do not have the control over this usage that white speakers do. However, it is also likely that they do not use a truly casual style in the presence of a white interviewer.

When we turn to the question of (r) pronunciation, we are faced with the unpromising data of Figure 5. At first glance, this style stratification diagram seems to have none of the regularity that appears in Figure 9, Chapter VII, for New Yorkers. The number of cross-overs is very high, indicating a lack of stylistic regularity, and the fluctuations on the social dimension are very great. However, the five

stylistic levels are ordered in the normal sequence for classes 3-4, 5, 7-8, and 9.

As we examine Figure 5 from left to right, we seem to find first, a very mixed pattern of lower class speakers from 0-2; second, a group of working class speakers with a large range of stylistic variation; third, a group of lower middle class informants who pronounce almost all of their (r)'s; and

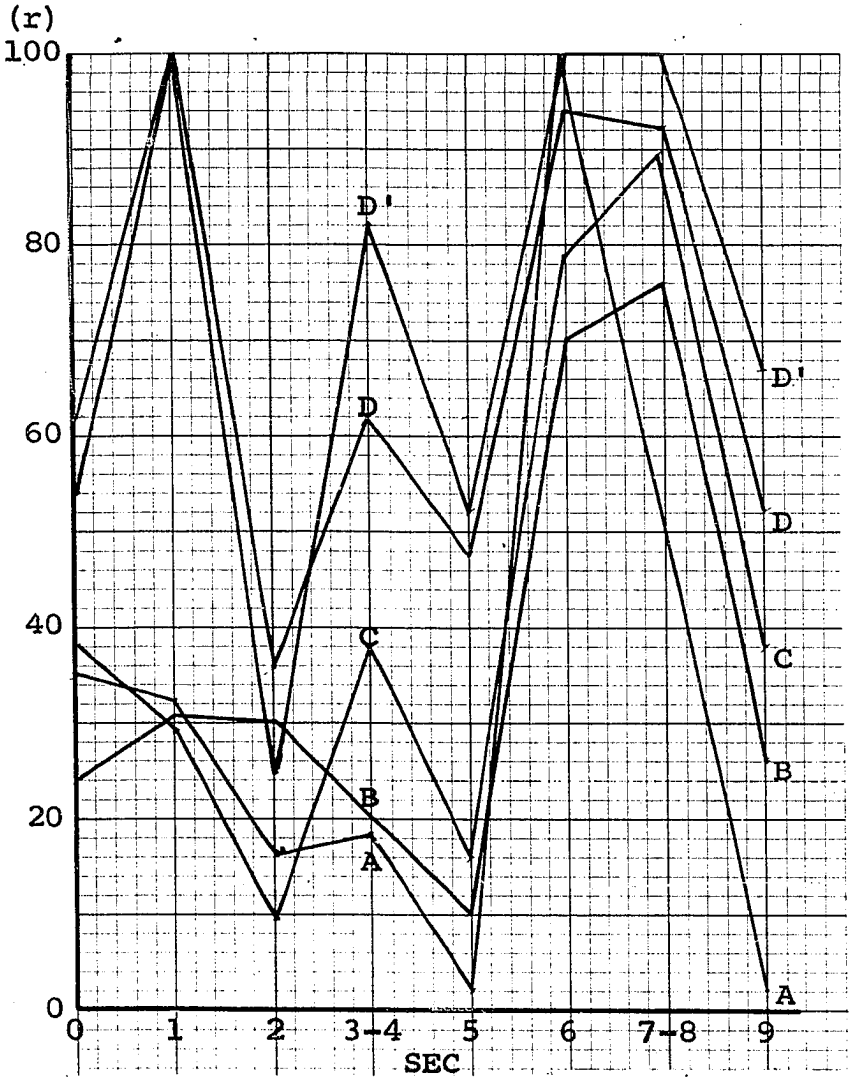

Figure 5

Style stratification of (r) for all out-of-town speakers

finally, some upper middle class speakers with a very wide stylistic range for (r).

A marked simplification appears in the class stratification diagram of Figure 6. Here there are three class groups, all showing a fairly regular increase of (r) index with increasing formality. The working class section is on the bottom--since this group is almost entirely composed of

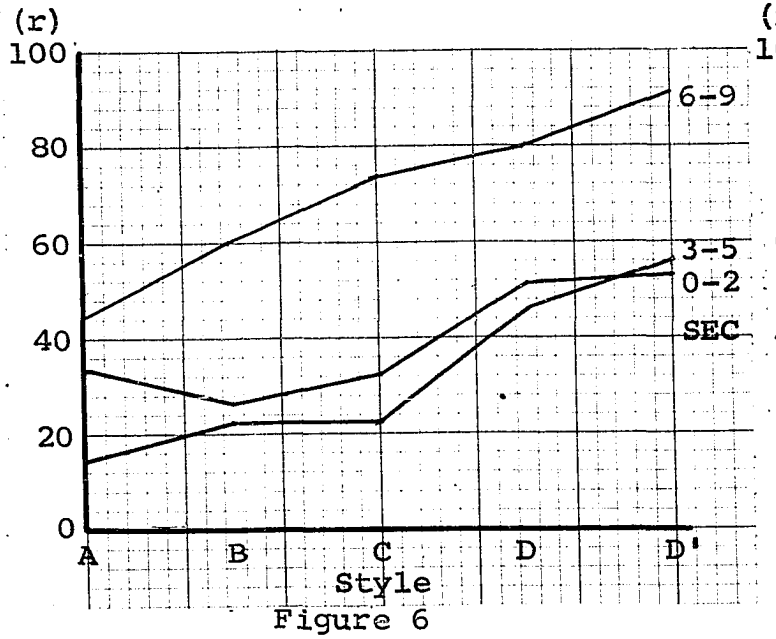

Figure 6

Class stratification of (r) for all out-of-town speakers

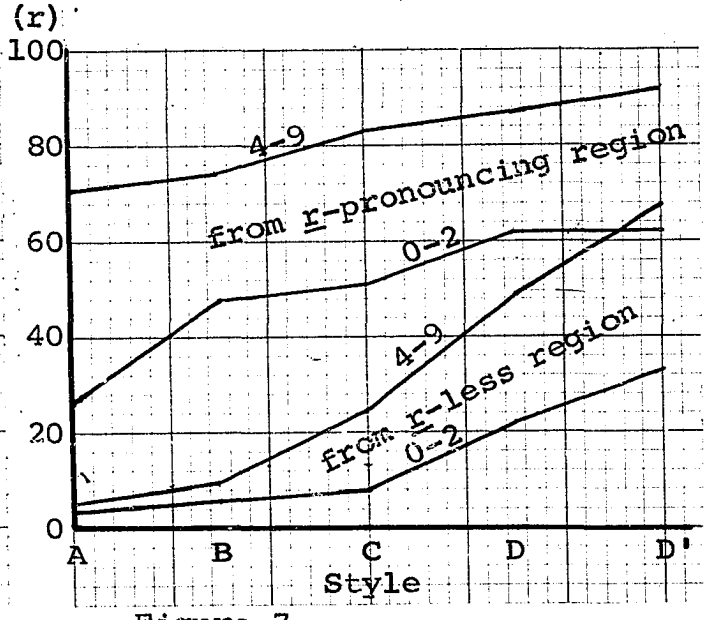

Figure 7

Class stratification of (r) for out-of-town speakers by region of origin

Southern Negro speakers, this is to be expected. What is remarkable is that the two lower lines come very close to the pattern set by the New York speakers in the beginning of Chapter VII. Such a similarity is not at all apparent in the style stratification diagram of Figure 5.

The opposition of Negro versus white is not as pertinent to the study of the (r) variable as the question of the area where the informants were raised. In Figure 7, we have re-

solved the class stratification diagram into four elements: an upper and lower class group for those who were raised in an r-pronouncing area, and another set for those raised in an r-less area. Here all deviation from stylistic regularity has disappeared, and similarly, the reversal of lower class and working class stratification has vanished. We see that the influence of the normative (r) is felt most strongly by the upper half of the speakers from r-less regions, but that all sections of the population respond to this influence.

There are two possible explanations for this regularity. First, it may be that the adoption of an r-pronouncing prestige pattern has taken effect in many other r-less areas besides New York City. The second possibility is that the influence of the New York City pattern has been brought home to these informants during the time that they lived in the city. Since r-pronunciation is an acquired form for New Yorkers as well, there is no reason to suspect that the out-of-towners should not share equally in this norm. The speakers from r-pronouncing areas will begin with a much higher level of (r-1) to start with; lower class subjects in particular may have begun to follow New York City practice of dropping r in casual speech, but the re-introduction of (r-1) in formal speech will be quite natural. The Eastern Pennsylvania informants mentioned above fit this description quite well.

So far, the results of the out-of-town study fit in with our expectations. As we come to the (eh) and (oh) variables, we should expect to find no similarity between out-of-

towners and New Yorkers. For a New Yorker, the whole structure revolves around the high (eh) and (oh) vowels which he acquires natively in his pre-adolescent years. Since the non-New Yorkers do not have this basic pattern to adjust, it is not likely that we will find either stylistic or class stratification.

Figure 8 shows the raw data for the (oh) variable in a style stratification diagram. This is truly a mixed pattern. It has no observable relation to any previous treatment of (oh); here every possible order of the stylistic levels can

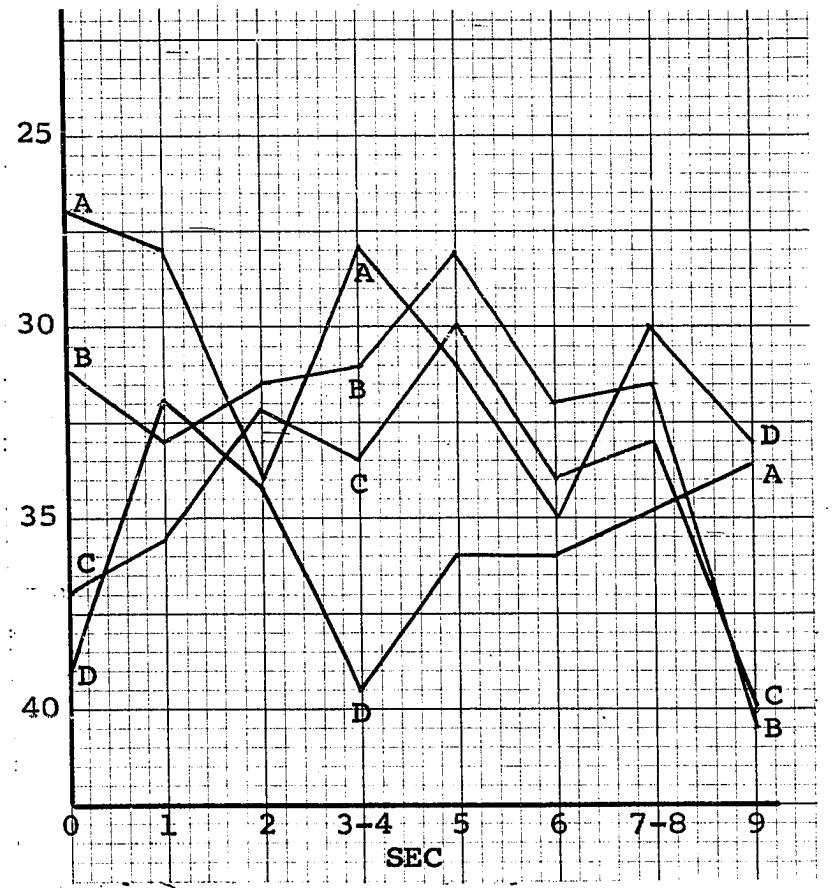

Figure 8

Style stratification of (oh) for all out-of-town speakers

E=10

be observed, with sixteen cross-overs on this diagram. Comparison with Figure 20, Chapter VII, satisfies us that none of the structure characteristic of the New York treatment of (oh) is to be found here.

This diagram shows vowels at an altogether different absolute level from the New York City situation. Figure 9 shows the over-all values for New Yorkers and out-of-towners for all classes combined, in each of the four stylistic levels.

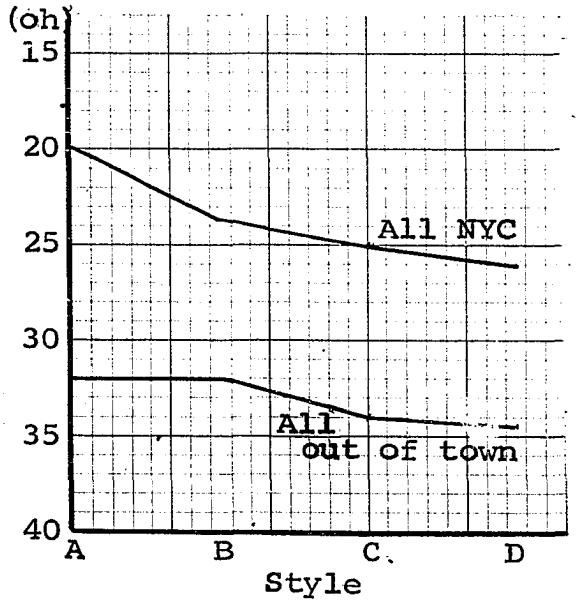

Figure 9

Average (oh) for all classes by style: NYC vs. out-of-town respondents

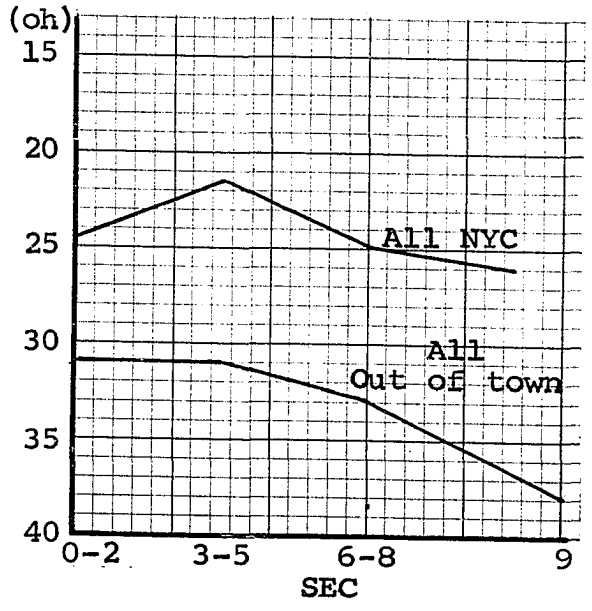

Figure 10

Average (oh) for all styles by class: NYC vs. out-of-town respondents

There is about ten points' difference on the index between these two averages. Figure 10 is the converse, showing the sum of all stylistic levels combined for each of the four class groups. The only trace of the New York City pattern which we

see here is in the sharp drop at the right for the upper middle class. This represents the presence of two Eastern New England speakers who use a very open vowel natively. The working class maximum for (oh) is entirely missing.

Finally, we may compare the New Yorkers and the out-of-town speakers for their use of (eh). The following figures showing the four stylistic levels for all New Yorkers and all out-of-towners, illustrate the point very well:

	38 out-of-town informants	81 New York City informants
Style A:	30	24.5
B:	30	29.0
C:	30	31.5
D:	30	33.5

Thus the three requirements for the validity of the procedure have been answered in full. We can say with some assurance that the data for native New Yorkers does indeed describe some processes taking place in the city alone. We have taken an additional step towards establishing the reliability and validity of the evidence as well.

Subjective reactions of out-of-town respondents

In Chapter XI, the subjective response of the out-of-town informants to (r) was compared with that of the New York informants. In this section, the reactions of out-of-town respondents to other variables will be considered.

E-12 As far as the zero pattern is concerned, the response of out-of-town informants was quite similar to that of the New Yorkers, as one would expect. The out-of-town treatment of (oh), however, was partly different from that of New Yorkers, as shown in Table 3.

TABLE 3

RESPONSE OF OUT-OF-TOWN AND NEW YORK SUBJECTS TO (oh) SENTENCES

	Relation to zero pattern	
	Higher	Lower
Sentence 6		
Out-of-town	10	11
New Yorkers	18	30
Sentence 7		
Out-of-town	6	21
New Yorkers	15	50
Sentence 8		
Out-of-town	8	13
New Yorkers	18	50

We see that the out-of-town speakers reacted in the same way as New Yorkers to Sentence 7, but showed no clear-cut reaction against the high (oh) vowels in Sentences 6 and 8. The percentage of (oh)-positive response by the three-choice test is 41 for the out-of-town speakers, and 58 for New Yorkers. However, this difference is primarily due to the Negro respondents: they showed only 24 per cent (oh)-positive response to the three-choice test, while the white speakers showed 60 per cent, about the same as New Yorkers.

The out-of-town speakers showed subjective reactions to (eh) that were similar to New Yorkers. The lower class out-

E-13

of-town speakers did not stigmatize (eh-1) as sharply as the working class and middle class did, and tended to accept Speaker 2's version of (eh-4) more readily than the other two classes. No important differences between Negro and white speakers appeared.

It was shown in Chapter VII that out-of-town speakers showed little resemblance to New Yorkers in their treatment of (eh) and (oh) in speech. They followed different patterns of stylistic variation, and their average values were at a lower level for casual speech. However, we pointed out that this was due to the fact that out-of-towners did not have high values of (eh) and (oh) in their native speech pattern to begin with. The negative reactions to high values of (oh) and (eh) which we are studying here are not acquired early in life, but are learned later, absorbed under the influence of pressure from above. It is therefore possible for out-of-towners to acquire these social reactions during their exposure to the New York City norms. However, we would <u>not</u> expect the out-of-town speakers to duplicate the relations of the age levels which we saw for New Yorkers: for (oh) and (eh), the younger age levels regularly showed more negative response than the older. In the case of (r), it appeared that the relations of the age levels were slightly reversed for out-of-town respondents. Exactly the same condition holds for (eh) and (oh), as shown in Table 4.

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TABLE 4

PERCENTAGE OF (eh)-NEGATIVE AND (oh)-NEGATIVE RESPONSE FOR NEW YORK AND OUT-OF-TOWN RESPONDENTS BY AGE LEVEL

	(eh)		(oh)	
Age	New Yorkers	Out-of-town	New Yorkers	Out-of-town
20-39	90	70	76	40
40-	75	84	49	41

We find that the critical factor in comparing (oh) and (eh) response for New Yorkers and out-of-towners is not the absolute level, but rather the relations of the age groups. The comparison of out-of-town respondents with New Yorkers shows that this relationship of age levels is characteristic of the native New York developments.

Out-of-town subjects show a surprising high level of (th)-insensitive response. Twenty-one of thirty-two out-of-town respondents showed (th)-insensitive patterns in the rating of Sentences 20, 21, and 22. This would not have been predicted on the basis of our previous information. It was shown that most out-of-towners follow the same pattern of (th) and (dh) stratification that New Yorkers do. Both white and Negro out-of-town respondents show the same high level of (th)-insensitivity: 11 out of 15 white respondents; 10 out of 17 Negro respondents.

It is possible that the versions of (th) and (dh) which were used in the SR test follow a phonetic pattern that is slightly different from that used by out-of-town speakers,

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but there is no evidence to support such a view. It seems therefore that there is a trend in New York City towards greater sensitivity to (th) and (dh). We have seen evidence for such a trend at several points in the present study: first, in the slightly higher use of affricates and stops on the part of older upper middle class informants; second, in the SR test for (dh) among New Yorkers, where it was found that younger respondents from SC 3 and SC 1 showed smaller percentages of (th)-insensitive patterns than their older counterparts; and third, in the fact that New Yorkers as a whole show greater (th) sensitivity than out-of-town respondents. In no case has the evidence been clear-cut and consistent across all social groups, and we must conclude that if a trend exists, it is not a strong one.