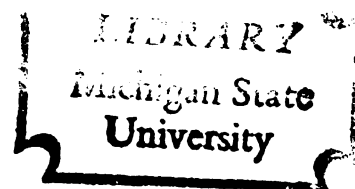


A SOCIOLINGUISTIC STUDY OF
ELABORATED AND RESTRICTED
CODE SYSTEMS

Thesis for the Degree of Ph. D.
MICHIGAN STATE UNIVERSITY
DUANE DENNIS PETTERSEN
1970

THESIS



This is to certify that the
thesis entitled

A SOCIOLINGUISTIC STUDY OF
ELABORATED AND RESTRICTED
CODE SYSTEMS

presented by
Duane Dennis Pettersen

has been accepted towards fulfillment
of the requirements for

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CODE SYSTEMS

By

Duane Dennis Pettersen

A THESIS

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ABSTRACT

A SOCIOLINGUISTIC STUDY OF ELABORATED AND RESTRICTED CODE SYSTEMS

by Duane Dennis Pettersen

The research reported in this paper concerns the sociolinguistic theory of restricted and elaborated code systems. The two linguistic codes are identified with lower-working class families and middle class families and specifically with family interaction patterns within the social classes. The two codes are distinguished on a linguistic, syntactic and lexical level as well as a psychological level. Linguistically, a restricted code selects a smaller set of syntactic and lexical options than does an elaborated code user. Psychologically an elaborated code-user expresses a greater degree of "intent" or specificity than does a restricted code-user. The two code systems result in differences in information processing abilities, thus affecting users of the codes in quite different ways in terms of expressing and reacting to identical phenomena (social, intellectual and emotional objects).

The sociolinguistic theory of Bernstein suggests that working class teenagers will exhibit a restricted code system and that a middle class teenager will employ an elaborated

code. Further it is predicted that teenagers will employ a linguistic code more similar to their mothers than to the code system of their peer group from a different social class. William Labov predicts that teens will exhibit a code system more similar to their peers than to their mothers.

Family discussions, eight families from each social class, of relevant teenage issues were taped and submitted for content analysis of ten variables. Working class members were predicted to use a greater proportion of total pronouns/total words, pronouns you and they/total pronouns, socio-centric sequences/total words, and Taylor Cloze Procedure. Middle class family members were predicted to use a greater proportion of pronoun I/total pronouns, ego-centric sequences/total words, subordinate clauses/total finite verbs, passive verbs/total finite verbs, preposition of/of + in + into, and the Gillie Abstraction Index.

Support was obtained for all hypotheses except the proportion of pronouns/total words, and the Abstraction Index. Thus significant differences were obtained between social classes as regards a restricted and an elaborated linguistic code system employed by working class and middle class families, respectively. Further, the research supports Bernstein's prediction that mothers and teenagers would employ a more similar code system than teens and their peers.

Duane Dennis Pettersen

Implications of the research suggest further refinement of linguistic variables in terms of a generative transformational grammar, and research of a longitudinal nature focusing upon the effects of restricted and elaborated codes on information processing abilities and academic achievement.

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Special consideration is given to my wife, Shirley, who has assisted me in innumerable ways throughout graduate school and finally as my faithful typist, proofreader and therapist, while completing the dissertation.

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INTRODUCTION

Culture is transmitted
largely through the medium
of language, and behavior
is in large measure both
learned and expressed
through language.

Dell Hymes (1962)

The present research is based upon a concern for sociolinguistics, a recent term created by social scientists who have recognized the need for a better understanding and use of linguistics in behavioral science research. This study was undertaken as a result of the experimenter's interest in Basil Bernstein's sociolinguistic research conducted at the University of London. Sociolinguist William Labov of Columbia University was also of interest as Labov's work suggested certain theoretical differences which the present writer wished to examine more closely. These differences center on whether the parents (Bernstein) or the peer groups (Labov) have the greatest influence on a child's language behavior.

The interests of both Bernstein and Labov center on the correlations found between social class and more specifically family interaction patterns within social classes, and the kinds of linguistic codes used by children. Bernstein has identified two linguistic codes, called elaborated and restricted, which seem to be determined by, if not correlated

with, a middle class environment and a working class environment, respectively. The two codes are generally distinguished by the degree of explicitness or intent expressed in the linguistic code. Elaborated codes express a greater degree of intent than do restricted codes. The codes are further distinguished linguistically by the probability of use of structural and lexical options.

The interest of the present research is twofold:

(1) to attempt to replicate in the United States, some of Bernstein's research with the addition of testing mother and child in the same environment thus providing further clarification of Bernstein's sociolinguistic theory; and (2) to provide a critical test of the conceptual difference between Bernstein and Labov. The general procedure consisted of interviewing a sample of middle and working class families whose teenage sons attended a common high school. Discussions by a 15 year-old teenager and his two parents were tape-recorded and subjected to linguistic analyses.

The present research is organized into the following chapters: Chapter I will examine current sociolinguistic theory; Chapter II reviews related experimental research and develops specific hypotheses for the present study; Chapter III provides an explication of the study's design, sampling procedures, data collection and statistical analyses; Chapter IV presents the results; Chapter V discusses general and specific conclusions and implications for future theory

building and research endeavors; and finally, Chapter VI provides a brief summary of the research reported in this document.

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CHAPTER I

SOCIOLINGUISTIC THEORY OF ELABORATED AND RESTRICTED CODES

General Sociolinguistic Theory

One of the most important movements in behavioral science since World War II is interest in the study of basic processes of communication and their regulative functions. Study of the educationally disadvantaged has also led to an attention to the process of language acquisition, to the relationships between language and cognition and to the social antecedents and regulative consequences of forms of language use.

The significance of the role of language in cultural development, argue Bereiter and Inglemann (1966), is that 'cultural deprivation' may be defined as language deprivation, especially for educational purposes. Language deprivation is mainly a failure to learn the uses of language. The problem of the culturally deprived, or the educationally disadvantaged, the authors suggest, concerns one's ability to obtain and transmit information, i.e., using language as the primary information processing system for data manipulations. Bereiter (1965) suggests further that information processing abilities are the essence of intellectual functioning.

The suggested notion of differences in language-use or using language as an information processing medium, was recently given empirical support in Britain by Fasil

Bernstein (1958) in a discussion of elaborated and restricted linguistic codes as found in general use by middle and working class groups respectively. Bernstein states that a function of language is that it "exists in relation to a desire to express and communicate; consequently, the mode of a language structure--the way in which words and sentences are related--reflects a particular form of the structuring of feeling and so the very means of interaction and response to the environment." (1958, p. 161) As Sapir (1956, p. 70) states: "Language is heuristic...in the much more far reaching sense that its forms predetermine for us certain modes of observation and interpretation." It is through specific linguistic codes that relevance is created, experience given a particular form, and social identity constrained.

Bernstein (1958) argues that changes in the form of social control patterns act selectively upon the principles of selection of both syntactic and lexical options. A similar argument was advanced by Chomsky (1957) concerning an innate structure which is universal for all men and which provides or initiates a propensity for language acquisition. The cultural or social milieu in which an individual is born, determines the subset of rules, from a larger theoretic set of rules, (syntactic, lexical and phonological rules) which will be acquired, thus determining the particular linguistic code employed in communication. Until recently,

relatively few social scientists were concerned with the different subsets of rules that might be selected by groups within a major linguistic code culture. That is, an English code is an English code, and aside from various dialects where pronunciation or phonological differences were analyzed and certain lexical idiosyncracies were recognized, no serious effort was undertaken to find systematic structural or grammatical differences.

Roger Shuy (1968) has discussed some of the tools available for evaluating as well as teaching nonstandard speakers a standard English code system. He states in part:

Most current materials deal with pronunciations although it has long been accepted that grammatical differences count more heavily toward social judgments than phonological or lexical differences.

It stands to reason that there is a hierarchy of importance in matters of teaching standard [English] to nonstandard speakers.... If grammatical matters count more heavily in social judgments, it seems reasonable to assume that grammatical matters should receive high priority in materials developed. (p. 83)

The implications of the use of two different linguistic codes are significant in terms of the communication activity between the two code-users. Identical phenomena (social, intellectual and emotional objects) will likely be perceived differently and thus relevant characteristics of the object will differ as will interpretations about the object. A suggested reason is that the restricted code-user pays more attention to the content of the object and the

elaborated code-user to the structural relationships of the same object. One implication of this difference as revealed in the linguistic code, may be seen in student-teacher relationships. Because the restricted code-user does not generally distinguish between the role and person who fills the role (its content), there is a frequent 'communication breakdown'. For example, the student who uses a restricted code may consider the teacher who uses an elaborated code, very impersonal and 'cool' because the teacher employs a much less frequent use of nonverbal cues which are necessary for the restricted code-user to identify in providing meanings. Similarly, the teacher may perceive the student as aggressive, rude or hostile because of the absence of identification of linguistic intent and specification in the restricted code of the student. The teacher makes the assumption that status differences (a structured object) between the student and himself should be identifiable in the language of the student. However, the restricted code-user does not make such a distinction linguistically. Frequent situations of inappropriate use of language by the working class child and misinterpretations of the child's intent by teachers, or vice versa, result in inhibiting social interaction. This may lead to a misevaluation of each other's world and communication may become a means of asserting differences.

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creates a resistance to learn new vocabulary or to constructing ordered sentences. From the child's point of view there is no need to specifically verbalize intent. Personal qualification through expressive symbolism, e.g., the use of 'I', is adequately communicated by tone-volume-physical set, not in the language he uses. His total perceptual system results in a sensitivity to the content of an object or its parts rather than the structure of the object, which induces a sensitivity to relationships among parts of the object or between one object and another.

The focus upon content with concrete, tangible and simple descriptive statements, with a 'now-orientation', results in further problems. The school, as an institution, emphasizes the structural features of events or objects, which might be used in the future for different and more complex means of handling data and thus perceiving one's environment. This means-end orientation is not a focus of the child who looks for immediate satisfactions. Piaget's (1958) differences in concrete and structural operations in cognitive development appears to lend support to the hypothesized operations which restricted and elaborated linguistic codes allow.

The research to be reported in this paper, discusses two linguistic codes which are used by people representing individuals from a heterogeneous social structure and/or family environment. The differing environments appear basic to the emergence of two codes, designated 'restricted'

and 'elaborated'. According to the socio-linguistic theory first postulated at the University of London by Basil Bernstein (1958), the two codes give rise to somewhat different ways of perceiving and manipulating phenomena, and specifically give rise to differing levels of performance and academic achievement in a formal school environment. To complete the cycle, Bernstein suggests that the codes developed reinforce the existing social structure which gave rise to the codes. Bernstein does state that restricted codes are not necessarily linked to any given social class. Restricted codes are used at times by all members of a society. The major function of this code is to define and reinforce the form of the social relationship by restricting the verbal signalling of individual experience. A restricted code does not necessarily affect the amount of speech, only its form. Examples of various uses of a restricted code at times are groups such as: husband-wife; a small prison group; or any closely knit group which has shared many common experiences together.

Before continuing a discussion of the nature of the two codes and the social environments which purport to influence the development and use of the codes, it would seem useful and perhaps more meaningful to first look at language and language codes in terms of an 'information processing framework' and particularly in terms of an analogy to the function of a machine language in computer processing.

Information Processing

The framework of information processing for a computer model consists of three basic components: an input-output system, a processing or programming component, and a storage or memory unit. The major concern here is the processing or programming component. In order to utilize the data input, the computer or the individual 'information processor' must have the basic 'program'. The program of the computer is transmitted through the use of machine language or a symbol system for 'telling' the machine what to do. The language of the program 'tells' the computer what information to accept, i.e., determines the input, where it is to be stored, what operations are to be performed, what order the operations are to follow, and what output is emitted.

The analogy of the computer to human problem-solving, decision making and thinking, in other words human information processing, was suggested more than a decade ago by H. A. Simon of Carnegie Institute of Technology and A. Newell and J. C. Shaw of the RAND Corporation (1958). More recently James Miller (1965) has viewed language as a special sort of human artifact, an information-processing artifact. Language, as with music, and other information transmission mediums, is designed to carry out some critical processes essential to a living system. Whether it is a natural language of man or a machine language of some computer system, Miller states that language is essential to information processing.

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As the machine language determines the processing functions of the computer, so human language programs what may be accepted, the interpretation of what is accepted, the integration and memorization of data, and the output of the system. Although language as a linguistic code is not the only medium for program direction in the human information processing unit, it seems to be the most important, especially in terms of academic studies. How effectively and efficiently the person functions is dependent on the 'program' that is used for processing the data. According to Labov (1970) one of the serious drawbacks in present linguistic knowledge, is that we don't know what programs or aspects of language actually help us to express our ideas clearly and facilitate cognitive development. Thayer (1967) contends that the notion of 'rules', 'policies' or 'programs' for information preferencing and processing lies at the heart of any study of human behavior. The problem is one of determining which rules, which policies, and which programs of linguistic behavior are significant.

Bernstein's Theory

Restricted and elaborated codes, or information-processing programs, as described by Bernstein, are tentatively interrelated with social class, but more specifically with the social structure of subgroups within a society, and in particular the structural patterns within a family unit.

Bernstein suggests that two general types of codes may be defined on a linguistic level in terms of the probability of the use of linguistic structural and lexical options. That is they can be defined in terms of the probability of predicting for any one speaker which structural elements will be used to organize meaning. A restricted code is a less informative code in that the kinds of structures employed by a speaker are fewer or more severely constrained, and the probability of predicting the pattern of organizing elements is greatly increased. An elaborated linguistic code-user will select from a relatively extensive range of alternatives from the syntactic and lexical options available in the language system. In other words, the two codes might be viewed as follows: given a theoretic set of all possible syntactic and lexicon options in the English language system, certain social-cultural environments seem to give rise to a language system which systematically selects a smaller subset of the universal set. Specific features of the linguistic system of the restricted code-user characterizes particular styles and kinds of role behaviors as well as perceptual and meaning functions that are markedly divergent from those behaviors emitted by the social-cultural environment of the elaborated code-user.

On a psychological level, Bernstein has distinguished the codes in terms of the extent to which each facilitates (elaborated code) or inhibits (restricted code) the orientation to symbolize intent in a verbally explicit form.

When the intent of the other person cannot be taken for granted, with the consequence that meanings must be explicitly verbalized, verbal planning promotes a higher level of syntactic organization and lexical selection. The preparation and delivery of relatively explicit meaning is the major function of the elaborated code. It is this construct, intent or greater or lesser explicitness, which is the overall characteristic of focus in Bernstein's theory. Exactly what aspects of the elaborated code are critical for symbolizing intent is not necessarily agreed upon by linguistic researchers. Bernstein (1966) suggests that whatever are the critical features of an elaborated code, they are interdependent with the child's socio-cultural environment which is transmitted to him through the linguistic process.

The code the child brings to the school symbolizes his social identity. It relates him to his kin and to his local social relations. The code progressively orients the child towards a pattern of relationships which constitute for him his psychological reality, and this reality is reinforced every time he speaks. (p. 259)

An example of the reinforced psychological reality which Bernstein provides, is the difference between the following two statements:

"I'd rather you made less noise, darling."

"Shut up."

The last statement is meaningful to a middle class child, but

what is important to stress is the fact that the middle class child has learned to be able to respond to both statements, and both are differentially discriminated within a finely articulated world of meaning. The working class child only has meaning for the one and if he hears the other he will translate it into his own language as "Shut up!" Thus the elaborated language code is mediated through the restricted code of the working class child in order for the message to be personally meaningful to him. Where the working class child cannot make this translation, he fails to understand and is left puzzled, according to Bernstein.

The middle class child's relation to the environment "is such that his range and expression of discriminative verbal responses is fostered by the social structure from the beginning. A virtuous circle is set up which is continually reinforced, for the mother will elaborate and expand the embryo personal qualificatory statements that the child makes." (Bernstein, 1958, p. 163) Thus the greater the differentiation of the child's experience the greater will his ability be to differentiate and elaborate objects in his environment. The point thus is not that the middle class child has more experiences but that they are more linguistically differentiated for him, thus in effect, creating more experiences.

Bernstein provides the following example of the difference between working class and middle class mother-

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child interactions. The pairs are on a bus and the child is setting on the mother's lap.

Restricted Code Users:

Mother: Hold on tight.
 Child: Why?
 Mother: Hold on tight.
 Child: Why?
 Mother: You'll fall.
 Child: Why?
 Mother: I told you to hold on tight didn't I?

Elaborated Code Users:

Mother: Hold on tight, darling.
 Child: Why?
 Mother: If you don't you will be thrown forward and you'll fall.
 Child: Why?
 Mother: Because if the bus suddenly stops you'll jerk forward on the seat in front.
 Child: Why?
 Mother: Now darling, hold on tightly and don't make such a fuss.

Although the example is very concrete and short, it highlights a couple of issues. A whole range of potential learning and connections have been cut out of the first example by the use of the categic statement. Natural curiosity is blunted. The notion of authority and status, potential social power, is revealed quickly. In the second example the child is exposed to a number of linguistic connections, reasons and sequence. If challenged a new set of reasons is employed. Although social power is finally revealed, it is much later and under different conditions. The frequent use of the categic statement limits learning and curiosity and induces a sensitivity towards a particular type of authority in which social power is quickly revealed.

The categoric statement becomes a part of a language which narrows the range of stimuli to which the child responds.

Restricted and elaborated codes may thus be considered as 'programs' for the human information processor and, therefore, as with the machine language of a computer system, different kinds of information are perceived and accented; the information may be interpreted differently; and thus behavior which may result from the 'same input' may quite possibly differ.

Because linguistic codes determine the 'planning procedure' or 'program' for information processing, and because an elaborated code produces a planning procedure which promotes a relatively higher level of syntactic organization and lexical selection than does a restricted code, that which is made available for learning by the two codes is different. Learning in this context, refers to what is significant, to what objects are made relevant, social, intellectual, and emotional objects.

Bernstein's theory may sound very similar to that of the Sapir-Whorf tradition, however its basic assumption is the inverse. For Whorf (1956), the language system is the basic and primary force creating different social and cultural environments, thus creating different ways of viewing and interpreting the world. For Bernstein, elements of the social-cultural structure are basic and underlie the formation

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In Bernstein's 1959 paper he discusses the important function which language plays in influencing behavior:

Language is considered one of the most important means of initiating, synthesizing and reinforcing ways of thinking, feeling and behaving which are functionally related to the social group. It does not of itself prevent the expression of specific ideas or confine the individual to a given level of conceptualization, but certain ideas and generalizations are facilitated rather than others, that is, the language used facilitates development in a particular direction rather than inhibiting all other possible directions.
(p. 312)

A restricted code facilitates the construction and exchange of communalized symbols and an elaborated code facilitates the same for individualized or personal symbols. Regulation and control patterns inherent in an elaborated code, induces its users to implications of separateness and differences in phenomena and points to the possibilities for the organization of experience inherent in a complex conceptual hierarchy. These two codes are induced by the social relationships or control patterns within the family. The intellectual and social procedures by which individuals relate themselves to their environment may very much be a question of their 'speech models' within the family and the codes these speech models employ. Middle class and associated

strata socialize their children to possess both an elaborated and restricted code; while children socialized in some sections of the lower working class strata, can be expected to possess only a restricted code. To succeed in school it is critical for the child to possess an elaborated code, or at least be oriented towards it.

The ability to switch codes for various social relationships, controls the ability to switch roles. Thus one of the consequences of these codes is the ability to empathize or switch roles--a necessary and important feature of effective communication (Berlo, 1958).

Although both Whorf and Bernstein posit different primary functions of human behavior, the language system vs. the social-cultural system, respectively, both would allow for an interdependence or interacting influence of the linguistic code and the social structure in which the code is used.

Watzlawick et al. (1967) in discussing the influence of communicative behavior, provide a similar view as the sociolinguistic theory of elaborated and restricted codes presented by Bernstein. The authors suggest two functions of a message, a 'report' and a 'command' function. A report function is basically the information which is transmitted between two individuals and the command function provides a definition of the relationship between the two individuals.

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In view of Bernstein's conception, different sets (groups) of individuals appear to employ characteristics of a language code which not only restrict the information value of the message transmitted but also frequently initiate a different definition of relationship. In essence it is the explicitness of intent and personalization of relationships which are provided by linguistic structures and lexicon in an elaborated code, but the same significances are more frequently and explicitly transmitted nonverbally and by context for a restricted code-user. Nonverbal information as well as particular lexical and grammatical alternatives (paralinguistic features of language) may provide 'command' or relationship functions. Thus for elaborated code-users, both 'structure' and 'content' are predominantly communicated through the linguistic code, while for restricted code-users, many of the 'structural' relationships are communicated nonverbally or in codes other than the linguistic one.

Nonverbal expression such as gestures, paralinguistic features, facial expressions, bodily movements, are termed 'immediate or direct expression', while words are termed 'mediate or indirect expression'. The importance of direct and indirect expressions is the relative emphasis and use made of one or the other. The working class child's language with a high proportion of commands, short simple statements and questions with simple, descriptive, tangible symbolism

of a low-order generality, relies heavily upon nonverbal means of expressing personal feelings. The language does not have the rich vocabulary and grammatical complexity to differentiate and finely distinguish personal qualification as does the middle class child's language. This form of language has many implications for the structuring of experiences and relationships with objects.

Although the middle class language code-user can use many of the nonverbal means of expressing feelings, they take second place to his sensitivity to verbal differentiations. The middle class child at an early age becomes sensitive to a form of language use which is relatively complex and which in turn acts as a dynamic framework upon his perception of objects. There is a pressure in the middle class social structure to intensify and verbalize an awareness of separateness and difference which increases the significance of objects in the environment.

Thus the distinction between structure and content is one of degrees within a conceptual hierarchy. What is implied is this: "Where there is sensitivity of content only the simplest logical implications or boundaries of the structure will be cognized." More specifically, certain aspects of an object will not register as meaningful cues; or if they do, the verbal response will be inadequately determined.

Because of the working class sensitivity to the content of objects and to personal qualification by means other than language structure, working class members learn to respond and make responses to cues which are immediately relevant. Stress on the present in the means of communication preclude the understanding of the meaningfulness of a time continuum other than of a limited order. Time-span of anticipation is brief and the working out of connections between means and distant ends is very immature. An important consequence of this patterning is that it produces a descriptive cognitive process, e.g., crude logical connections between events A, B, C, and D, and that sustained curiosity is not fostered or rewarded as answers to questions rarely lead beyond the object or further than a simple statement about the object (Schatzman and Strauss, 1955). The social structure continues to reinforce the early patterning of perception.

We have stated above that Bernstein talks about language codes (elaborated and restricted) or styles of language behavior in terms of a functional relationship with social interaction. Particular family control patterns or social structures influence the linguistic code learned and the nature and function of the code in human interaction or communicative environments, i.e., the language code creates particular cognitive styles of behaving. At this point let us turn to the underlying cultural and social subtleties which give rise to styles of interaction through linguistic code media.

Bernstein has found that social class is a variable which provides a gross distinction between restricted and elaborated linguistic codes. Social class variables which have been employed by Bernstein and others in England as well as by American researchers are those of occupation, income, mother's education, and place of residence. Bernstein (1962a) also employed the variable of 'which school the youngster attended' a regular high school or a vocational technical school. However, in his recent writings (1969) he placed greater emphasis upon the home environment and patterns of interaction or control within the home, specifically between the mother and child--the mother being the dominant adult language model during the early years of the child's language development.

Bernstein's argument seems to suggest that linguistic differences in education as well as other test measures are results of a different code; and a different code is a result of different family styles; and family styles may be generally distinguished by the notion of social class: lower-working class and middle class.

A dynamic interaction is set up in the middle class family and social structure. The pressure to verbalize feelings in a personally qualified way, the implications of the language learned, combine to decide the nature of the cues to which he responds--structural cues. And an orientation towards structure, rather than towards content as

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does the working class social structure, allows a number of alternative interpretations and meanings of an object which thus increases the area and intensity of the child's curiosity and receptiveness.

The middle class child grows up in a social environment where spatial and temporal sequencing is finely distinguished. Thus the child is inculcated with a fine sense of relationships between future goals with present activity. The sensitivity to the structural relationships among objects facilitates the development of conceptualizations which are unavailable to working class children.

Working class family structure is less formally organized than middle class family structure in relation to the development of the child. Although authority is specific within the family the values expressed do not provide the carefully ordered universe--spatially and temporally--of the child. Thus the specific character of long-term goals is replaced by more general notions of the future. Present activities have a much greater value and therefore postponement of present gratifications for future ones is difficult.

The language between mother and child is restricted for the working class child: one which contains few personal qualifications, for it is a language where the stress is on emotive terms employing concrete, descriptive, tangible and visual symbolism. The nature of the language tends to limit

verbal expression of feeling. Feeling between mother and child tends to be communicated nonverbally. Thus feelings are less differentiated by the working class child through the medium of language. Cues responded to in his environment are primarily of a qualitatively different order. He is sensitive to the content of objects. Of critical importance is the type of language-use upon which value is placed, for once a value is so placed, then that language-use will reinforce the emotional disposition which resulted in the initial preference.

Bernstein (1959) has distinguished two forms of linguistic codes which result from the kinds of family and social environments described above. He suggests that a family which employs a restricted language code provides a child with a language environment characterized by the following:

1. Short, grammatically simple, often unfinished sentences with a poor syntactical form stressing the active voice.
2. Simple and repetitive use of conjunctions (so, then, because).
3. Little use of subordinate clauses to break down the initial categories of the dominant subject.
4. Inability to hold a formal subject through a speech sequence; thus a dislocated informational content is facilitated.
5. Rigid and limited use of adjectives and adverbs.
6. Constraint on the self-reference pronoun; frequent use of personal pronouns.

7. Frequent use of statements where the reason and conclusion are confounded to produce a categoric statement.
8. A large number of statements/phrases which signal a requirement for the previous speech sequence to be reinforced: 'Wouldn't it?', 'You see.', 'You know.', etc. This process is termed 'sympathetic circularity.'
9. Individual selection from a group of idiomatic phrases or sequences will frequently occur.
10. The individual qualification is implicit in the sentence organization; it is a language of implicit meaning.
11. Symbolism is of a low order of generality.

On the other hand, a family which employs an elaborated linguistic code orients the child to a language environment characterized by the following:

1. Accurate grammatical order and syntax regulate what is said.
2. Logical modifications and stress are mediated through a grammatically complex sentence construction, especially through the use of a range of conjunctions and subordinate clauses.
3. Frequent use of prepositions which indicate logical relationships as well as prepositions which indicate temporal and spatial contiguity.
4. Frequent use of the personal pronoun 'I', and impersonal pronouns, 'it', and 'one'.
5. A discriminative selection from a range of adjectives and adverbs.
6. Individual qualification is verbally mediated through the structure and relationships within and between sentences.
7. Expressive symbolism discriminates between meanings within speech sequences rather than reinforcing dominant words or phrases, or accompanying the sequence in a diffuse, generalized manner.

8. A language use which points to the possibilities inherent in a complex conceptual hierarchy for the organizing of experience.

Behavioral scientists in the United States seem to support Bernstein's conception of the home as the dominant influence in determining the kind of linguistic code learned and used by children. Bloom (1965) has produced 104 pages of annotated abstracts from empirical research papers concerned with language and academic achievements. He writes on the basis of those documents: "...that the home is the single most important influence on the intellectual and emotional development of children particularly in the pre-school years." (p. 69) He continues by saying that for adequate language development, there is a necessity of frequent interaction between child and parent at mealtime, playtime, and throughout the day. Central to general learning and language development is the amount of interaction between parents and their children, and the amount of corrective feedback.

The notion of the importance of the expansion of language by the mother is also part of Roger Brown and associates' (1965) theory of language development of the child. Providing sequencing and sets of reasons for the child's 'Why?', 'How come?', etc. questions, are vital to the child's growth. As is the imitation with slight modification which provides 'correct' grammar plus many of the function words and auxiliary verbs, etc., which the early child leaves out.

Dave (1963) found that the home has the greatest influence on the language development of the child and the least on the skills taught primarily in the school. He further concludes that it is not so much the status characteristics of parents but what the parents do in the home in terms of interaction with each other and their children, which are most influential on the achievement of their children.

Labov's Theory

Although Bernstein, Bloom, Brown and Dave all suggest that the home is the most significant influence upon the child's language development, another sociolinguist in the United States, Labov, makes a strong argument for the peer group emerging as the most significant influence upon the child's language behavior. Labov (1970) states that in the sociolinguistic study of language learning, we can begin with the fundamental observation that "children do not speak like their parents." (p. 33) At first glance, the statement seems somewhat surprising as we obviously learn to speak from our parents. If the child's parents speak English, and he grows up in the United States, he will certainly have English as his native language. "Yet in almost every detail," states Labov, "his English will resemble that of his peers rather than that of his parents." (p. 33) Labov does agree that linguistic codes may differ between working and

middle classes. However, he states that children across both class levels will have a more homogeneous code than that code of parents and children within either of the two classes. The present study will provide a more critical test of Labov's hypothesis that peers rather than parents provide the most significant influence upon the child's use of a linguistic code.

Although Labov admits that as yet we have no thoroughgoing studies of the relation of parent, child, and peer group, all of the available evidence shows that the peer group has the greatest influence. Labov continues:

Most parents are not aware of how systematically their children's speech differs from their own; if they do inquire, they will be surprised to find that there is no fixed relation between their own rules and those of their children. Instead, it is the local group of their children's peers which determines this generation's speech pattern. This is the case with rules of non-standard urban dialects as well as the more neutral rules of regional dialects considered here. (1970, p. 34)

According to Labov, the full force of the peer group doesn't appear in the six-year-old in the first grade, but does occur in the fourth and fifth grade, when the ten-year-old begins to come under the full influence of the pre-adolescent peer group. Dialect differences and sharp downward trends in school records appear at this time and seem to not be "unconnected with the fact that peer groups present a more solid resistance to the schoolroom culture than any individual child can." (1970, p. 34)

Labov, then, as with Bernstein, has based his sociolinguistic theory of linguistic codes upon indirect research and upon conceptualizations of social psychology, education and sociology. The inconsistency which seems apparent has not been critically tested. The present study will provide a test of whether or not it is the parent or the child's peer group that has the greatest influence in determining the child's speech patterns. Limitations of the present research are that it is a correlational study and is conducted in the United States. Also the researcher has made no attempt to select a random sample from the population of teenagers or the population of all children.

Summary

Bernstein has discovered systematic differences between children of 6 years of age as well as teenagers up to 15 years of age. From these differences, one can make some assumptions about the nature of family communication styles or control patterns. If similar differences in language use can be found among American families, then it would be important to study family interaction patterns over time to obtain further insight into relationships among language development and academic potential in children. The present study is concerned with discovering language differences among heterogeneous families as regards social class variables of education level of mother and income level

of the family. In addition simple observation of physical characteristics of the home, both external and internal was made. Analyses of linguistic codes of teenagers, their mothers and their peer groups will be conducted.

If significant variables are found which distinguish elaborated and restricted codes, then implications for future research as well as practical application in the formal education system appear necessary and beneficial. It is important to point out that researchers in Britain have found that the use of a restricted or an elaborated code is relatively independent of intelligence and other psychological personality characteristics. However, such variables may influence the level at which one operates within a particular code.

The research proposal briefly described above (that is, determining whether or not similar general linguistic codes are used in 'white' American subcultures as has been found in Britain) seems to be a necessary pre-requisite to further analyses and message manipulations of linguistic and non-linguistic codes as they apply to formal education. The relationships among social structure, language-use, and subsequent behavior have direct bearing on questions such as the following: (1) What is available in the environment to be learned?; (2) What are the conditions for learning?; (3) What are the constraints on subsequent learning?;

(4) What are the major reinforcing processes?; and (5) What are the significant linguistic variables which facilitate intellectual and cognitive growth, or facilitate human functioning and adapting in a heterogeneous society.

When children respond differently or give 'wrong' answers, it is not so often that they are wrong as that they are answering another question. The two codes described above produce different restrictions on what is perceived as relevant and the interpretations of that which is perceived. An explanation of 'wrong' answers might partially be given by the linguistic characteristics of the two codes.

In the next chapter specific research related to elaborated and restricted codes is reviewed. Specific research questions and hypotheses are also presented.

CHAPTER II

RESEARCH LITERATURE AND HYPOTHESES

Presummary

In the previous chapter we reviewed the basic conceptual and theoretical sociolinguistic literature relevant to the emergence of two linguistic codes--elaborated and restricted. It was suggested that the two codes emerge from a difference in social class level of families with particular patterns of social interaction. One sociolinguist, Labov, presents an alternative conceptual framework from that of Bernstein, in that he hypothesizes that the child's peer groups have a greater influence upon the child's linguistic code than do the child's parents. Research reported in this study will attempt to provide empirical data relevant to the apparent conceptual differences between Bernstein and Labov.

The present chapter reviews empirical research relevant to the emergence of elaborated and restricted codes. In addition, general questions and research hypotheses based upon theory and research relevant to the sociolinguistic study of elaborated and restricted codes are presented.

Experimental Research

Three major experimental studies have been conducted which provide information directly relevant to the sociolinguistic theory explicated by Professor Bernstein. The authors of the research, Bernstein, Lawton and Pobinson, are presently associated with the Sociological Research Unit at the University of London. Each of the studies deserves discussion in depth.

Bernstein's Research

Two major experimental papers by Professor Bernstein are currently available to the experimenter. (Bernstein 1962a, 1962b) The same subjects were used for the two separate analyses designed (1) to see whether the two hypothesized codes - restricted and elaborated - were associated with social class, (2) to see whether the orientation to one or the other codes was independent of I.Q., and (3) to see what linguistic units were critical in distinguishing the two codes.

The samples of subjects consisted of sixty-one boys aged fifteen to eighteen of working-class background (messenger boys -- none of whom had been to grammar school) and forty-five boys of the same age from a public school. A tape recorded, relatively undirected discussion was taken with all groups on the topic of the abolition of capital punishment. A sample of 1800 words which followed the first five minutes of the discussions was used for the analyses.

Study I

In Bernstein's first analysis, he found that overall social class differences were significant as predicted:

- 1 - Working-class (WC) subjects used a longer mean phrase length, spent less time pausing and used a shorter word length.
- 2 - Holding nonverbal intelligence (Raven Progressive Matrices Test) constant, social class differences were found in the same direction.
- 3 - Holding verbal (Mill Hill Vocabulary Side Form I Senior) and nonverbal intelligence constant, social class differences were again found in the same direction except for word length.
- 4 - Within the middle-class (MC) group the sub-group with superior verbal intelligence used a longer phrase length, a faster rate of articulation and a longer word length.
- 5 - Within the WC group the sub-group with the average I.Q. profile spent less time pausing.

Bernstein concludes that there is a difference between working-class and middle-class linguistic codes which are revealed in verbal planning procedures as measured by hesitation phenomena. Although I.Q. does make a difference within a social class group, it appears to be independent of whether a 'restricted' or 'elaborated' code is employed.

Study II

Fernstein's second published paper "Social Class, Linguistic Codes and Grammatical Elements" employed the same samples as described earlier with analyses made on only ten middle-class subjects and fourteen working-class boys. Results of Fernstein's analyses of grammatical elements were as follows:

- 1 - No social class differences were found in the proportions used of finite verbs, nouns, prepositions, conjunctions and adverbs.
- 2 - "I think" (referred to as ego-centric sequence) was found to be much more frequently used by MC boys, whereas the sympathetic circularity sequence (e.g., 'wouldn't it', 'isn't it', etc., referred to a socio-centric sequence) occurred more frequently in working-class speech.
- 3 - The MC groups used a higher proportion of:
 - (a) subordinate clauses; (b) complex verbal stems; (c) passive verbs; (d) total adjectives and uncommon adjectives; (e) uncommon adverbs and conjunctions; (f) 'of' as a proportion of 'of', 'in' and 'into'; (g) personal pronoun 'I'.
- 4 - The WC groups used a higher proportion of (a) total personal pronouns, and (b) 'you' and 'they'.

Once again Bernstein defines the two codes in terms of predictability. The structural elements are highly predictable in the case of a restricted code and much less so in the case of an elaborated code. Although some of the criteria (e.g., uncommon adjectives) employed for differentiating the two codes are quite arbitrary, he has provided data in the form of linguistic units which support differences found in hesitation phenomena, verbal planning, and abstract-concrete levels of language.

Bernstein suggests that the best single indicator of the two codes is the proportion of subordinations to finite verbs. He restates that his findings clearly indicate that speech orientation to the two codes and verbal planning processes which they entail, are independent of measured intelligence.

Bernstein's research was stimulated by three questions. Are the elaborated and restricted codes associated with social class? The answer is 'yes'. Is an orientation to one or the other code independent of I.Q.? Again Bernstein found the empirical answer to be 'yes'. The third question concerns the linguistic units which are critical in distinguishing the two codes. Significant linguistic variables are summarized in the list of four conclusions stated above.

At this point we can say that the sociolinguistic theory of Bernstein discussed in Chapter I is generally supported. We turn now to research conducted by Denis Lawton.

Lawton's Research

Lawton (1968) conducted research for three reasons:

- 1 - to provide data which would support or refute Bernstein's research and theory;
- 2 - to extend the range of evidence by collecting 'discussion' speech from some boys younger than the subjects used by Bernstein; and
- 3 - to investigate other kinds of speech situations and the written language of the same boys.

Because of the large amount of work entailed in linguistic analyses, Lawton limited his sample to four groups of five boys each; five fifteen year-olds from each of the two social classes and five twelve year-olds from each of the two classes.

Each boy wrote four essays with a 30-minute time limit.

The topics were:

- 1 - A story ('Urashima the Fisherboy') was read to the group and they were immediately asked to rewrite it.
- 2 - 'Home'.
- 3 - 'My Life in Ten Year's Time'.
- 4 - To explain the game of 'soccer' to a foreigner who has neither heard of it nor seen it played.

In addition, each boy was to complete two Sentence Completion Tests.

The second part of the study was to attempt to replicate Fernstein's informal discussions by having the boys participate in a thirty-minute discussion of capital punishment.

The third part of Lawton's research consisted of individual interviews with each boy. The purpose of the interviews was to provide a context wherein it was possible to control the level of coding difficulty, and to contrast the performance of the groups differing in age and social class in two kinds of speech situations labelled 'Description' and 'Abstraction' (Goldman-Eisler, 1961).

The interview was divided into three sections:

- 1 - Four sets of picture cards: each set consisted of four or five cards which conveyed a story. The subjects were first asked to describe the picture (description), and then to abstract the point of the story (abstraction).
- 2 - Questions about school involving first descriptive, then abstract language.
- 3 - Four questions involving moral judgment (abstraction).

Results of Lawton's research suggest the following:

A. Written Language

- 1 - Clear evidence was found that the working-class/middle-class difference in usage of Restricted and Elaborated Code applies to written work as well as speech.

- 2 - Although there were social class differences even on narrative-description essays, the social class differences were greatest on essay subjects which enabled abstract writing to be selected.
- 3 - A new Sentence Completion Test (details not given) was devised which was successful in distinguishing working-class and middle-class boys in their use of subordinations.

B. Group Discussion

In the discussion situation, planned as a replication of the Bernstein experiment, linguistic results remarkably similar to Bernstein's were found, not only in the direction predicted, but in the actual numerical scores.

C. Individual Interviews

- 1 - Social class differences were still in evidence, but
- 2 - the actual numerical results were quite different from the figures relating to 'discussion speech'. Thus speech was found to vary not only according to social class, but also according to general context of situation, i.e., the mode of communication.

3 - Interesting differences were found in relation to description and abstract language, which suggests that working-class boys can be made to use something which is at least approaching an Elaborated Code.

All three studies of Lawton show significant differences in use of linguistic forms by the two social classes. These differences are greater at age fifteen than age twelve. The differences are stable across various modes of communication as well as subject matter and are less distinct when subjects are forced to speak or write about abstract subjects.

Once again the theory posited by Bernstein is basically substantiated. Support for the theory is further expanded to include various modes (communication mediums) of interactions as well as an extension of the age level of boys from 15 years to 12 years. Results of Lawton's study also suggest that the elaborated - restricted codes are on a continuum and that under appropriate conditions, a restricted code-user may be able to employ some of the characteristics which an elaborated code-user employs.

The final research reviewed in this chapter is that of Professor Robinson.

Robinson's Research

Robinson questions the validity of Bernstein's argument that many working-class children, especially those from the

lower working-class, have no access to an elaborated code. Both Bernstein (1962a, 1962b) and Lawton (1968) had reported social class differences in language consistent with Bernstein's sociolinguistic theory.

Four aspects of the experimental design employed by Bernstein and Lawton are questioned.

1 - The topic of communication - Capital Punishment. Robinson argues that there is a possibility of differential amounts of relevant information available to both groups.

2 - The type of receiver. The fact that working-class boys were talking with working-class boys who might expect "restricted" code utterances, may have deterred them from using the 'elaborated' code.

3 - The structure of the communication system. Because of the unstructured conversational atmosphere, the working-class boys may have been encouraged to use a 'restricted' code.

4 - The mode of communication. Perhaps speaking in a group did not offer the best opportunity for working-class boys to display their 'elaborated' code. Writing might allow use of an 'elaborated' code.

Robinson used over 120 boys and girls with ages between twelve and thirteen. All subjects wrote two letters -- one 'informal' and the other 'formal'. The informal letter was to be written to a friend whom the subjects hadn't seen

for a long time. Each subject was to write about the latest news and gossip. The 'formal' letter was addressed to the 'Governor' of the school explaining reasons for wanting to go to a particular location.

On a large number of linguistic variables Robinson found that on the 'formal' letters there were only a few statistically significant differences employing Wilcoxon Matched-Pairs Signed-Ranks Tests. The informal letters exhibited more significant differences.

Robinson concludes by saying that the restricted number of variables examined by Bernstein and Lawton, and the possible instability of differences found in his own study stemming from small language samples, make general evaluative comments tentative and imprecise. Lexical differences seem to support Bernstein and Lawton; however, structural results are not so consistent.

Robinson (1965) conducted one other analysis upon his subjects. He employed a special use of Cloze procedure (Taylor, 1953) to determine whether or not working class children would use a more predictable code (structural and lexical alternatives) than middle class children.

The subjects were given thirty-one experimenter created sentences, each sentence on a different page. One word was deleted from each sentence. Each subject was to fill in the first word he thought of, then put in another

word below it, and finally put down as many other words that he could think of which might 'fit', the deleted word. At a later time subjects ranked their responses having the opportunity to change their first response.

Robinson deleted the following words; 4 nouns; 4 adjectives; 4 verbs; 4 prepositions; 2 conjunctions; and a number of others, unspecified. Results indicated that middle class boys used a wider range of words and working class boys had greater conformity of responses. General results supported Bernstein's conceptions of differential predictability within middle and working class codes. Robinson summarizes with the statement that "Cloze procedure seems to be a useful way of exploring the nature of language differences." (p. 55)

A number of problems arise in attempting to compare the works of Bernstein-Lawton and that of Robinson. The following speculations may be operating:

- 1 - Writing a letter to the 'Governor' may have decreased the use of an elaborated code for middle-class children because of the uniqueness of the task.
- 2 - Different research designs were employed.
- 3 - Boys and girls were used by Robinson and only boys were subjects for Bernstein and Lawton.

- 4 - Different topic areas and constraints were employed.
- 5 - Linguistic units studied varied in many instances.
- 6 - Age differences of the children varied.

Robinson's research generally supports that of Bernstein and Lawton. Further evidence is provided which suggest that a restricted code-user may be forced to use a code more similar to that of the elaborated code-user.

As the present study did not analyze 'writing' of the various subjects, it cannot examine Robinson's consideration that perhaps working-class children have an elaborated code available but are not stimulated to use it. Robinson's alternate suggestion is that linguistic differences between social classes may be operant at early ages, diminish around age 10 or 12 because of common school influences and then widen again around age 15. The 'age hypothesis' was not explored in the present research. Only one communication mode is employed in the present research - a family discussion. Thus the possibility that teenagers who predominantly use a restricted code could be forced to employ a code more similar to an elaborated code is not tested.

The following section discusses general research questions, a summary of hypotheses derived from the reviews in Chapter I and II, and a rationale for each specific hypothesis.

Research Areas and Hypotheses

Research Areas

A review of the sociolinguistic theory posited by Professors Bernstein and Labov and an analysis of three major research studies suggests the following two relationships:

1. Individuals identified as belonging to a lower socio-economic class will employ a 'restricted' language code whereas individuals representing a middle class environment will employ an 'elaborated' communication code. The two codes demand particular information processing programs which are quite different in terms of orientations toward other people, objects and ideas as well as different levels of verbalizing explicitness or intent of those objects.

The two codes are differentiated in terms of the probability of predicting which structural and lexical elements will be used to organize meaning. An elaborated code-user (middle class) will select from a relatively extensive range of alternatives. The restricted code-user (lower working class) will employ a limited number of the linguistic structures and lexicon.

2. Social class has a greater influence upon the linguistic code used by individuals than peer group influence. Specifically, Bernstein, though not Labov of the United States, predicts that children will employ a communication code more homogeneous with other members of their family

than with their peers representing a different social class. In the present study, a teenage boy will use a code more like his mother than like a teenager from another social class level. Similarly, a mother in a family will employ a code more similar to her son than a code used by the maternal parent from a different social class.

The two general areas described above lead to the specific hypotheses stated below. The hypotheses are designed to test whether or not linguistic differences relevant to elaborated and restricted codes would be found among a heterogeneous group of 16 families. Descriptive data obtained through content analyses of the speech of the family members are used to test the hypotheses.

General Hypotheses

Ten measures of a communication code will be employed to determine if significant differences are revealed between two samples of families - one designated 'working class' and the other 'middle class'. On all ten linguistic variables the following two general hypotheses are suggested on the basis of sociolinguistic theory and research related to the emergence of elaborated and restricted code systems.

- 1 - Members of families of the 'working class' sample will exhibit significantly different scores on all dependent linguistic variables than members of families of the 'middle class' sample.

- 2 - Mothers and sons of each sample will exhibit a more homogeneous use of linguistic variables than will mothers or sons across samples.

Specific One-Alternative Hypotheses

- H1: Working class families will exhibit a greater proportion of pronouns/total words than will middle class families.

Numerous studies (Lawton, 1968, Chapter III) regard a diminishing percentage of pronouns as an indication of increasing maturity of writing, abstract writing and more impersonal writing. Use of personal pronouns also suggests an insufficient specificity whereas a noun or noun phrase would be more appropriate and indicate a greater specificity. One may also interpret the use of a pronoun combined with a non-verbal signal as adequately communicating intent and specificity in many concrete situations.

- H2: Working class families will exhibit a greater proportion of pronouns 'you' and 'they' to total pronouns than will middle class families.

A ready identification or implicit agreement in referent is implied by the use of 'you' and 'they'. Inasmuch as referents are not finely differentiated, the global term 'they' will be adapted as a general label. Both pronouns are nonspecific and arise out of an attempt to concretize experiences.

- H3: Working class families will exhibit a greater proportion of socio-centric sequences/total words than will middle class families.

When used repeatedly, socio-centric sequences discourage further analysis, and close the discussion at that particular level. Curiosity is limited. Meanings signaled in this code tend to be implicit and so condensed. The socio-centric sequences may be transmitted as a response of the speaker to the condensation of his own meanings. The speaker requires assurance that the message has been received.

- H4: Linguistic codes of working class families will exhibit a higher Cloze score than will the linguistic code of middle class families.

Cloze Procedure is a measure of readability or complexity of a message. It also may be a score correlated with an information theory measure of redundancy. According to Bernstein, a restricted code uses fewer grammatical and lexical options than an elaborated code. Thus predictability should be greater for the restricted code and the Cloze score would thus be greater than for an elaborated code.

- H5: Middle class families will exhibit a higher proportion of the pronoun 'I'/total pronouns than will working class families.

The pronoun 'I' increases the differentiation of self. A restricted code does not encourage specificity or separation of self from others who are considered as a common or

like group. A middle class family stresses the person-relationships and thus qualifies and differentiates what he would say from that of someone else. Thus a middle class member uses the pronoun 'I' more frequently than a working class member.

H6: Middle class families will exhibit a higher proportion of ego-centric sequences/total words than will working class families.

The preface 'I think', an ego-centric sequence, is probably an indication of semantic uncertainty. It invites a further 'I think' on the part of the receiver. The sequence signals difference and relates the sequence to the person. It symbolizes discretion. An ego-centric sequence also allows the listener far more degrees of freedom and may invite the listener to develop the communication on his own terms. It facilitates logical development and exploration of a particular area. Thus middle class families should show a greater tendency to employ ego-centric sequences in their elaborated code than working class families.

H7: Middle class families will exhibit a higher proportion of subordinate clauses/total finite verbs than will working class families.

Recent studies quoted in Chapter III of Lawton (1968) agreed that 'maturity' of expression is marked not only by an increase in the frequency of use of subordinate clauses, but also in the complexity of their structuring. Subordinate

clauses are clearly identified with using an elaborated code which is associated with middle class writings.

H8: Middle class families will exhibit a greater proportion of passive verbs/total finite verbs than will working class families.

A greater proportion of passive verbs is an obvious example of an impersonal form which is more suitable for less concrete writing. Jespersen (1924) suggests that passive voice may be used when there are special reasons like tact or delicacy for not mentioning the active subject and where the passive may facilitate connection between one sentence and the next. These examples of the use of passive voice are fairly sophisticated, requiring a high degree of control over the language forms.

H9: Middle class families will exhibit a higher proportion of the preposition 'of'/of and in and into than will working class families.

An elaborated code, suggests Bernstein, is associated with greater selection of propositions symbolizing logical relationships than with those indicating spatial or temporal relationships. The preposition 'of' has the logical relationship connotation as well as an adjectival quality, and thus greater restraint is placed on this form of qualification and use.

H10: Linguistic codes of middle class families will exhibit a higher abstraction index score than will the linguistic codes of working class families.

Bernstein's thesis maintains that there is a relation between speech systems and orientation towards abstract formulation, and thus 'abstract' writing would be revealed in middle class language more than in working class communication codes. In addition, abstraction and generalization are usually closely connected and these two (scales) concepts are generally associated with middle class language.

Summary of Specific Hypotheses

- 1 - Working class family members will exhibit a greater proportion of:
 - a-pronouns to total words
 - b-pronouns 'you' and 'they' to total pronouns
 - c-socio-centric sequences to total words
 - d-Cloze Procedure score completions
- 2 - Middle class family members will exhibit a greater proportion of:
 - a-pronoun 'I' to total pronouns
 - b-ego-centric sequences to total words
 - c-subordinate clauses to total finite verbs
 - d-passive verbs to total finite verbs
 - e-use of preposition 'of' to of, in, and into
 - f-abstraction index level

Summary

Sociolinguistic research reviewed in Chapter II has provided significant information for the development of a set of ten hypotheses designed to test the sociolinguistic theories discussed in Chapter I. The linguistic variables used in the ten hypotheses were selected because of their critical role in distinguishing elaborated and restricted codes in previous research. Two of the variables, Cloze Procedure and the Abstraction Index, were employed because of their apparent conceptual value for Bernstein's development of a sociolinguistic theory of linguistic codes, education and social class.

Chapter III will provide a description of the research design, sampling procedures, operationalization of linguistic variables, data collection and statistical analyses.

CHAPTER III
RESEARCH DESIGN

General Study Design

The present study employed a select group of 16 families in the Holt, Michigan, area. As no experimental variables were manipulated, descriptive data were employed to test the hypotheses, based upon content analyses of the linguistic responses obtained in the 16 personal interviews.

Sampling Procedure

The respondents selected for the present study were 16 families (from a larger sample of 25 families) with the following characteristics:

- 1 - each family has a boy between 14 and 16 years-of-age;
- 2 - each family consists of the boy's natural parents;
and
- 3 - that the boy and his parents have been living together, as a family.

The sample was limited to boys and their parents as it would require a much larger sample to make adequate comparisons between boys and girls on the major linguistic variables under study.

Listings of families based on the above criteria were obtained from school census records. A final list was compiled of approximately 100 families which met the qualifications established by the investigator. A personal letter was sent to each family, explaining the purpose of the study and asking for their cooperation. (See Appendix A for letter). After two or three days, the letter was followed by a phone call, to set up an appointment-time for the interview.

Of the 100 families, one out of every four indicated that they would take part in the study. Four call backs were made on the remaining 75 families, with approximately 20% of the families not being contacted. Of the remaining 60 families who were reached, most refusals were due to a conflict with summer vacation schedules and a general inability to get three family members together for the interview. Interviews were conducted over a seven-week period in the months of July and August, 1968.

Of the 25 families interviewed 16 were selected to maximize differences on criteria considered significant in terms of Bernstein's sociolinguistic theory of elaborated and restricted code-users. The criteria are listed in order of importance.

- 1 - mother's education level
- 2 - father's education level
- 3 - annual family income

- 4 - general reactions of the investigator as to family's job description, appearances of family's home, etc.

These four criteria allowed a distinction between the two samples, Working Class and Middle Class, as follows: Education level was arbitrarily set as 12 years of school or less for working class mothers and over 12 years of education for middle class mothers. With this criterion five families (coded 01, 03, 07, 09, and 12) were placed in the working class and four families (coded 11, 13, 15, and 17) placed in the Middle Class. Seven other mothers all had an even 12 years of school. Employing the criterion of 12 years of school to the father's educational level enabled the investigator to place three more families whose fathers had less than 12 years of school, in the Working Class sample. Five other families had fathers with a high school education or above and were thus placed in the Middle Class sample. Income levels substantiated the placement of the seven mothers who all had a high school education. The three placed in the Working Class sample had an annual median income of \$8,000, while the four placed in the Middle Class had an annual median income of \$17,000. The Working Class and Middle Class each contained eight families upon which the analyses for the present study were made. A description of the two samples are in Table 1 below.

Table 1.--Descriptive Characteristics of Working and Middle Class Samples

Working Class			Middle Class		
Income*	Education Level# Father	Mother	Income*	Education Level# Father	Mother
15.0	6	10	30.0	12	12
11.0	7	10	8.5	12	14
Retired	12	11	13.0	12	16
8.4	8	12	14.0	15	12
11.0	12	10	15.0	15	13
13.0	12	10	13.5	21	16
7.0	11	12	20.0	18	12
8.0	11	12	12.0	16	12
MD.=9.7	11	10.5	13.7	15	12.5

*Income in thousands. #Education Level is last year attended school. Ages of parents was exactly one year younger for both father and mother in the Middle Class families than in the Working Class families.

Definitions of Dependent Variables

The variables defined below are those used as dependent variables in the ten hypotheses discussed in Chapter II. Definitions for all but Cloze Procedure and the Abstraction Index are taken from definitions used by Bernstein, Lawton or from the Revised Plain English Handbook, by Walsh and Walsh, 1959. The definition of Cloze Procedure is taken from the author of the measurement technique, Wilson Taylor (1953). Paul Gillie (1957) constructed the Abstraction Index, a simplified formula for measuring degrees

of abstraction in writing. The variables or linguistic units are defined immediately following each hypothesis.

Hypothesis I: Pronouns/total words are essentially a type of noun that cannot take the word 'the' immediately in front of it. Doubtful words are tested by trying to insert a 'the' in a sentence similar to the one in question.

Ex.: _____ is very sad. _____ went away.

Examples of pronouns are: I, you, he, she, it, we, they, me, yours, him, her, its, us, them, mine, yourself, his, hers, itself, ours, theirs, myself, themselves, this, that, such, some, several, all, any, most, each, either, both, few, many, none, anyone, somebody, something, everyone, nobody, no one, nothing, one, two, three, etc.

Hypothesis II: The pronouns 'you' and 'they'/total pronoun were defined simply by counting each instance of use of the pronouns by the subjects.

Hypothesis III: Examples of socio-centric sequences (S.C.)/total words are: 'isn't it', 'wouldn't it', 'wouldn't you', 'hadn't it', 'you know', 'ain't it', etc. Socio-centric sequences are usually used at the end of a sentence. Bernstein suggests that "socio-centric sequences which are generated basically by uncertainty, may be transmitted as a response of the speaker to the condensation of his own meanings. The speaker requires assurance that the message has been received and the listener requires an opportunity to indicate the contrary.... S.C. sequences test the range of identifications which the speakers have in common." (1967, p. 205)

Hypothesis IV: Cloze Procedure is designed to index the correspondence of a source's system of language habits - including both semantic and grammatical habits - to those of another user of the same language. A Cloze score is a measure of degree of ease or difficulty of a particular message for a particular receiver. The score is determined by the ability of an individual to replace items deleted from a message.

Taylor has found that deleting every 5th word, with a random selection of the 1st word deleted (the procedure followed by this investigator) is a sensitive measure of readability or comprehension. Scoring the percentage of 'exact' words correctly replaced provides the same order of difficulty level as allowing synonyms. Taylor also suggests that scoring 'exact' words is probably more sensitive to fine differences in style of different sources. Only exact words replaced were scored as 'correct' in the present research.

Cloze scores were employed in this study to draw inferences about, or make comparisons between, elaborated and restricted code-users with a constant set of receivers.

Hypothesis V: The pronoun 'I'/total pronouns is defined simply by counting each instance of use of the pronoun in a subject's speech.

Hypothesis VI: Examples of ego-centric sequences (E.C.)/total words are: 'I think', 'I believe', 'I know', 'I mean', etc. As with socio-centric sequences, E.C. sequences are generally found at the end of a sentence, although sometimes at the beginning when the verb of the sequence is not the main verb of a clause. E.C. sequences do not usually require affirmation but "often invites a further 'I think' on the part of the listener," according to Bernstein. "The sequence signals difference and relates the sequence to the person." (1967, p. 206) E.C. sequences allow greater freedom for the listener and may suggest to the receiver that he develop the communication on his own terms with further elaboration. Both ego-centric sequences, used more frequently by elaborated code-users, and socio-centric sequences, used more frequently by restricted code-users, "play an important role in maintaining the equilibrium which characterizes the different codes." (1967, p. 207)

Hypothesis VII: Subordinate clauses/finite verbs or dependent clauses are introduced by subordinate conjunctions such as: as, as if, because, before, if, since, that, till, unless, when, where, and whether. According to Walsh, a subordinate clause does not make sense when

standing alone, that is, it is dependent upon other words to give it 'complete' meaning. The subordinate conjunctions connect two clauses of unequal rank, a dependent clause and an independent clause on which it depends. Examples of subordinate clauses are:

1. I was here before you came.
2. Robert delivers papers before he comes to school.
3. When I leave, I will take the North road.

Hypothesis VIII: Passive verbs/finite verbs are verbs of the passive voice which denote that the subject of a sentence receives the action. The passive always has a verb phrase composed of a form of the auxiliary verb 'be', followed by a past participle. Examples of passive verbs are:

1. The dog was called by the man.
2. The letter has been written by the manager.

Hypothesis IX: The preposition 'of', in proportion to the use of prepositions 'of' plus 'in' plus 'into' were counted by noting each instance in which a subject used one of the three prepositions in his speech.

Hypothesis X: The Abstraction Index is described by Gillie (1957) as a simplified formula which was derived in part from the Flesch abstraction formula. The correlation between Flesch and Gillie's Abstraction Index (AI) yields a multiple R of .8229. Gillie's AI composed of three units is thus equivalent to Flesch's 16-unit measure, but yet significantly easier to apply to messages.

Directions for use of the AI are as follows:

- 1 - Do not use on messages less than 200 words in length.
- 2 - Count the number of finite verbs per 200 words. Do not count any form of the verb 'to be' when used only as a copula to link the subject and predicate complement.
- 3 - Count the number of definite articles and their nouns per 200 words. Do not count any definite article - noun sequences if there is an intervening adjective or when 'the' modifies an adjective or noun-adjective.

- 4 - Count the number of nouns of abstraction per 200 words. Count all nouns ending in the suffixes "-ness, -ment, -ship, -dom, -nce, -ion, and -y," including the plurals of such nouns.
- 5 - Add the numbers found in Steps 2 and 3 and add '36' to this sum.
- 6 - Multiply the number found in Step 4 by '2'.
- 7 - From the total found in Step 5, subtract the result of Step 6. The result of this subtraction is the abstraction score.

Abstraction scores found by the above procedure are interpreted as follows. Gillie suggests that when describing the abstraction level of a message, one should use the verbal descriptions rather than the numerical descriptions so as not to suggest the preciseness often associated with numbers.

- 0 - 18, very abstract
- 19 - 30, abstract
- 31 - 42, fairly abstract
- 43 - 54, standard
- 55 - 66, fairly concrete
- 67 - 78, concrete
- 79 - 90, very concrete

The definitions of variables given above composed the criteria employed for content analyses of the taped discussions among three family members, of which only the mother's and teenager's utterances were analyzed in this study.

The following section briefly describes the procedures employed for collecting the research data.

Data Collection

Personal interviews were carried out in the home of each family. After some preliminary remarks to place everyone



at ease, the interviewer introduced the family to the immediate task at hand, namely, their discussion of various topics dealing with adolescent problems.

The discussion topics selected were designed to meet several criteria. They had to be sufficiently interesting to the subjects to insure motivation for communication. They had to involve questions of social reality for which there were no 'correct' answers. They had to permit several alternative solutions and to allow for differences of opinion among family members. They had to be topics on which all subjects would have adequate information to carry on a discussion. They had to allow for various levels of a specificity-generality dimension or a concrete-abstract dimension.

The interviewer read the following instructions:

"Below are a series of situations which are discussed in most families at one time or another. Families seem to handle the problems in different ways. We would like for you to discuss among yourselves as many points of view that you are familiar with. From these different views, select a view which represents the thinking of your family.

Please spend some time with each of the situations. There is no right or wrong answer...only what your family feels is the most appropriate answer for the situation. You will have 30 minutes to discuss all four situations below. Don't worry about the time; we will inform you when the half hour is up."

The list of suggested discussion questions given to the subjects is reproduced in Appendix B.

After reading the instructions, the interviewer answered any questions that the subjects asked. At this point, the interviewer turned on the tape recorder and indicated that he would leave the room until they finished their discussion, or until the 30-minute time limit for discussion had elapsed. Actual discussion time for three members of the family unit, father, mother and teenager, ranged from 10 minutes 30 seconds to 31 minutes 4 seconds, with an average (mean) time of 18 minutes 45 seconds. The average time for the groups designated Working Class and Middle Class were 19 minutes 39 seconds and 17 minutes 51 seconds, respectively. The average time for each group may not correlate with total number of words as the word counts used in this study are only for mothers and teenagers and not for fathers. Upon completion of their discussion, the interviewer handed out a brief questionnaire to each member of the family. The complete questionnaires given the respondents are presented in Appendix C. Only a few questions relevant to demographic information were used. The other parts of the questionnaire were administered for purposes of another study (Costello, 1969). After respondents had filled out the questionnaire, the interviewer again answered any questions they had. This completed the data collection stages for each family participating in the study.

Data Analyses

Content analyses were made of ten different linguistic units or dependent variables. In light of the non-random sampling procedures, small samples, and the characteristics of the variables used in the hypotheses only ordinal levels of measurement were assumed. Thus nonparametric statistical analyses were made. Four major statistical procedures were employed:

- 1 - Kendall Coefficient of Concordance: W (Siegel, 1956) was used for overall analysis of eight variables (variables in Hypotheses 1-2 and 5-9) by four samples (Working Class teenagers and mothers and Middle Class teenagers and mothers). That is, the Kendall W was used to test statistical differences among the four samples or groups.
- 2 - Kruskal-Wallis one-way analysis of variance (Siegel, 1956) was used to analyze each of nine linguistic units (the eight mentioned above plus the Abstraction Index) by the four groups, that is, the Kruskal-Wallis was used to test any differences among the four groups on any one given variable.

- 3 - The Mann-Whitney U test (Siegel, 1956) was used to analyze individual differences among all combinations of two groups from the four samples on each of the nine variables mentioned above.
- 4 - A t-test (McNemar, 1962), the only parametric statistic employed was used to test for statistical differences between Middle Class families (father, mother and teenager) and Working Class families on the Cloze Procedure data. Cloze Procedure scores were conducted on one of the three discussion topics, 'fads'. A section of discussion approximately 432 words in length was selected from six of the interview discussions, three each from family discussions labeled Working Class and Middle Class. Approximately 87 blanks or deleted words were in each segment of discussion analyzed by the Cloze method. Two subjects were randomly selected from a University of Montana basic speech class, to fill in the blanks on each message. Thus a total of 12 subjects were used on which the Cloze score is based. The percentage of exact words correctly replaced was the basis for the Cloze score. (See Appendix D for specific instructions and a copy of the messages used for the Cloze Procedure.)

All linguistic counts were made by a coder trained by the experimenter. The first three family discussions, Coded 01, 03 and 04, were completed by both the coder and the experimenter. The coder was allowed to continue once the experimenter and the coder obtained identical counts on all linguistic variables. Disagreements were obtained on 'finite verbs' and 'passive verbs'. With further discussion and clarification of criteria for these variables, agreement was obtained. A random sampling of further discussions and linguistic variables suggested that the coder and the experimenter were in perfect agreement.

CHAPTER IV

RESULTS

The results of the present research are based upon data from four samples, eight members per sample (a total of 32 subjects). Linguistic content analyses were performed on taped discussions of mothers and teenagers of 'Working Class' families and of 'Middle Class' families. The average number of words upon which the analyses were based for the four groups were: (1) working class mothers (1119); (2) working class teenagers (515); (3) middle class mothers (1058); and (4) middle class teenagers (531).

Bernstein's sociolinguistic theory as well as previous research suggested that differences in frequency of usage should be observed for all linguistic variables studied. In addition, it was predicted that teenagers would exhibit a linguistic code more similar to their mother's code than to their peers from another social class level.

Social class distinctions were not designed to follow specific criteria generally accented in the United States, but rather upon criteria (education levels of parents) employed by Bernstein in his research in Britain. Thus, all analyses were tested for significance at $\alpha = .10$ level of confidence. However, exact probability levels obtained are reported in the chapter.

First, overall differences among the four groups are given. Second, results for each hypothesis are presented which predict differences between working and middle class families. Finally differences among mothers and teenagers of both social classes are presented.

Kendall W: Overall Analyses

The first analysis was conducted to determine if overall differences among the four groups and eight linguistic variables (excluding Cloze Procedure and the Abstraction Index) are revealed. A Kendall Coefficient of Concordance: W (Siegel, 1956) was employed for this purpose. As expected no significant differences ($\alpha = .10$) were found in terms of frequency of use among the four groups. The reason was that on three of the variables the two working class groups were predicted to have a greater percentage of use than middle class groups; similarly, five of the variables predicted greater middle class usage than working class groups.

In terms of an ordering effect, i.e., which variables were used most frequently and which ones least frequently, all four groups exhibited a nearly identical ranking. A $\chi^2 = 26.74$ associated with the Kendall W was significant beyond $\alpha = .001$ level of confidence. Thus the proportion of prepositions 'of'/of + in + into were used most frequently by all groups while socio-centric sequences were used least frequently by all groups.

When comparing the four groups with their usage of the five variables on which the prediction was that Middle Class groups would have a greater usage than Working Class groups, the variance s , associated with a Kendall W , was significant beyond $\alpha = .05$ level of confidence. Thus the null hypothesis that the four groups would use the five variables equally, could be rejected. Once again the ordering of use of the variables was similar for all groups but Middle Class teenagers used the variables most in their code; Middle Class mothers were second, Working Class mothers third, and Working Class teenagers used the five variables least frequently of all the groups.

The variance s , associated with a Kendall W employed to analyze differences among the four groups across the three variables of total pronouns, pronouns you and they, and socio-centric sequences, was not significantly different from zero. Thus overall, these three variables for which Working Class groups were predicted as more frequent users than Middle Class groups, were found not to significantly discriminate among the four groups.

A summary of the Kendall W analyses can be found in Table 2.



Table 2.--Kendall Coefficient of Concordance: W Analyses of Eight Linguistic Variables Across Four Groups, WC Mothers and Teenagers and MC Mothers and Teenagers.

Variables	Significances Among Four Groups
Total Pronouns	
Pronouns 'You and They'	WC = MC n.s. ($\alpha > .10$)
Socio-centric Sequences	
Pronoun I	WC = MC n.s. ($\alpha > .10$)
Ego-centric Sequences	
Subordinate Clauses	MC > WC s. ($\alpha = .05$)
Passive Verbs	
Preposition 'of'	

Mann-WhitneyU: Combined Working Class vs. Combined Middle Class

Scores for Working Class mothers and teenagers were combined and tested for differences against the combined scores for Middle Class mothers and teenagers. The Mann-Whitney U test revealed the following information.

Table 3.--Combined Scores of Working Class Mothers and Teenagers vs. Combined Scores for Middle Class Mothers and Teenagers as Tested by the Mann-Whitney U Statistic

Variables	U statistic	Alpha Level Attained
Pronouns/total words	103	.20
Pronouns you and they/total pronouns	85	.10*
Socio-centric sequences/total words	78	.05*
Pronoun I/total pronouns	93	.15
Ego-centric sequences/total words	87	.10*
Subordinate Clauses/total finite verbs	83	.05*
Passive verbs/total finite verbs	102	.20
Preposition of/ of plus in plus into	95	.15

*Indicates significant differences at $\alpha \leq .10$ level of confidence.

Working class groups were predicted to have a greater usage index on the first three variables in the above table than the index of Middle class groups. Support was found for two of these, 'pronouns you and they' and 'socio-centric sequences', but no significant difference was obtained between Working and Middle class groups on total pronouns used.

Applying the Mann-Whitney U to variables 4 through 8, for which Middle class groups were predicted to have greater usage indices, reveals that only 'ego-centric sequences' and 'subordinate clauses' indicated that combined MC groups used a significantly greater percentage of the two variables than combined mother-teenager MC groups.

Reasons for lack of significant differences on more of the variables when combined groups are tested, will be revealed more clearly when we look at differences among the four groups on each variable and then between all combinations of two groups on each variable.

Kruskal-Wallis one-way Analysis of Variance

The Kruskal-Wallis test (Siegel, 1956) was employed to analyze differences among the four groups, WC mothers and teenagers and WC mothers and teenagers, on each linguistic variable separately. Setting significance levels at $\alpha = .10$ level of confidence, Kruskal-Wallis (H) analyses revealed the following.

Table 4.--Kruskal-Wallis one-way Analysis of Variance Among Four Groups (WC and WC Mothers and Teenagers) on Each of Eight Variables

Variables	H statistic	Alpha Level Attained
Pronouns/total words	6.183	.20
Pronouns you and they/total pronouns	4.270	.30
Socio-centric sequences/total words	3.746	.30
Pronoun I/total pronouns	6.926	.10*
Ego-centric sequences/total words	2.590	.50
Subordinate Clauses/total finite verbs	6.863	.10*
Passive verbs/total finite verbs	4.334	.30
Preposition of/ of plus in plus into	1.201	.99

*Indicates significant differences at $\alpha \leq .10$ level of confidence.

Only two variables, the 'pronoun I' and 'subordinate clauses', reached the required level for obtaining significant differences when the four groups are tested on each variable separately. Once again some of the significant differences between class groups is not revealed because of either similarities between mothers and teenagers of a given class, or, in many instances, similarities between the WC mothers' and MC mothers' linguistic codes, as measured on the eight linguistic variables. More clear evidence concerning the social classes and the mother-teenager groups is revealed by making individual group comparisons with the Mann-Whitney U test.

Mann-Whitney U test: Individual Comparisons

Forty-eight Mann-Whitney U tests were calculated which is equal to comparisons between four groups taken two at a time for eight linguistic variables. Each variable will be discussed in terms of significant differences in frequency of use among the four groups. The hypothesis associated with each variable is also given. Although the hypotheses were stated in terms of Working Class (WC) families and Middle Class (MC) families, results are reported for each of the two groups within each class as the overall general hypothesis is concerned with differences between classes as well as differences between individual groups within and between social classes.

Hypothesis 1: Working class families will exhibit a greater proportion of pronouns/total words than will middle class families.

The results from the Mann-Whitney U test revealed that MC teenagers (MT) used a significantly greater proportion of pronouns (see Table 5 below) than the second place Working Class teenagers (WT) ($\alpha = .065$), the third ranked Working Class mothers (WM) ($\alpha = .05$), or the fourth ranked Middle Class mothers (MM) ($\alpha = .05$). No other significant differences were revealed. The results did not support the hypothesis.

Hypothesis 2: Working class families will exhibit a greater proportion of pronouns you and they to total pronouns than will middle class families.

Results of the tests indicated support for the directional hypothesis. (See Table 5 below.) The ordering of the groups in terms of most to least frequent usage, was WT, WM, MM and MT. The only significant differences were between WT and MT ($\alpha = .032$), and WM and MT ($\alpha = .097$).

Hypothesis 3: Working class families will exhibit a greater proportion of socio-centric sequences/total words than will middle class families.

Once again only partial support was obtained. (See Table 5 below). The order of most frequent usage is MT, WM, WT, and MM. MT was significantly different from WM ($\alpha = .026$) and MM ($\alpha = .018$). WM was significantly

different from MM ($\alpha = .024$), and WT was significantly different from MM ($\alpha = .02$).

Hypothesis 4 was concerned with the Taylor Cloze Procedure and is discussed later in the chapter.

Hypothesis 5: Middle class families will exhibit a higher proportion of the pronoun I/total pronouns than will working class families.

Sufficient support was obtained for this prediction. (See Table 5 below.) MT used the pronoun 'I' most frequently followed by WT, MM and WM. Significant differences were obtained between MT and MM ($\alpha = .07$), MT and WM ($\alpha = .014$), and WT and WM ($\alpha = .032$).

Table 5.--Man-Whitney U Test of Significant Differences between Pairs of Working and Middle Class Mothers and Teenagers

Variables	Significant Differences in Frequency of Usage
Pronouns	MT > WT (.065); MT > WM (.05); MT > MM (.05)
You & They	WT > MT (.032); WM > MT (.097)
Socio-centric sequences	MT > WM (.026); MT > MM (.02); WM > MM (.024) MT > MM (.018)
Pronoun I	WT > WM (.032); MT > WM (.014); MT > MM (.097)
Subordinate Clauses	WM > WT (.052); MT > WT (.065); MM > WT (.005); MM > MT (.052)
Ego-centric sequences	None
Passive Verbs	WM > WT (.041); MT > WT (.032)
Preposition of	MT > WT (.025)

Hypothesis 6: Middle class families will exhibit a higher proportion of eco-centric sequences/total words than will working class families.

Although the order of frequency of usage was in the predicted direction (MT, MM, WT and WM), no significant differences were obtained. (See Table 5 above.)

Hypothesis 7: Middle class families will exhibit a higher proportion of subordinate clauses/total finite verbs than will working class families.

Partial support was obtained for this hypothesis. (See Table 5 above.) The order of most frequent usage of subordinate clauses was MM, WM, MT and WT. MM was significantly different from MT ($\alpha = .052$) and WT ($\alpha = .005$). In addition WM was significantly different from WT ($\alpha = .052$), and MT was significantly different from WT ($\alpha = .065$).

Hypothesis 8: Middle class families will exhibit a greater proportion of passive verbs/total finite verbs than will working class families.

General support was obtained for this hypothesis (See Table 5 above) with the following order of most frequent usage: MT, WM, MM and WT. MT was significantly different from WT ($\alpha = .032$) and WM was significantly different from WT ($\alpha = .041$).

Hypothesis 9: Middle class families will exhibit a higher proportion of the preposition of/of + in + into than will working class families.

The ordering of frequency of usage was MT, WM, VT and MM. Only the difference between MT and VT was significant ($\alpha = .025$). (See Table 5 above.) Thus support for the hypothesis was obtained for teenagers but not for mothers.

Hypothesis 10 concerns the Abstraction Index and is discussed below.

The following chart summarizes the order of rankings according to usage of the linguistic variables by the four groups. A rank of '1' indicates that that group used the variable most frequently, while a rank of '4' indicates least usage of the variable. Not all rankings indicate significant differences. (See Table 5 above.)

Variables	Class Groups			
	VT	WM	MT	MM
Pronouns/total words	2	3	1	4
You & They/total pronouns	1	2	4	3
Socio-centric Sequences/total words	3	2	1	4
I/total pronouns	2	4	1	3
Ego-centric Sequences/total words	4	2	3	1
Subordinate Clauses/total finite verbs	3	4	1	2
Passive Verbs/total finite verbs	4	2	1	3
Of/of + in + into	3	2	1	4

Chart 1.--Summary of ranks assigned horizontally to each of four groups in terms of variable usage.

Two other variables were employed to test differences between the four groups -- Taylor Cloze Procedure and the Abstraction Index. The two hypotheses concerned with these two indices are discussed below.

Hypothesis 4: Linguistic codes of working class families will exhibit a higher Cloze score than will the linguistic code of middle class families.

The parametric t-test typically used to test Cloze scores was used to test differences between the combined working class family discussions (father, mother and teenager), and the discussions of the same family members of middle class families. The data are shown in Table 6 below, which shows strong support ($\alpha < .005$) for the directional hypothesis. The Cloze score suggests that the working class discussions were more readable, redundant or more predictable in terms of

Table 6.--Differences between Working Class and Middle Class Family Discussions as Measured by Taylor's Cloze Procedure with Use of the t-test.

	WC	MC
Mean Percent Correct	60.3%	47.2%

$$t_{df=10} = 3.652; \alpha < .005$$

the completion scores, than were the Cloze scores of middle class families.

Hypothesis 10: Linguistic codes of middle class families will exhibit a higher abstraction index score than will the linguistic code of working class families.

No support was obtained for this hypothesis. All abstraction scores fell within the range of 55 - 66, labeled by Gillie as 'fairly concrete'. Reasons for lack of significant differences among the four groups will be discussed in the following chapter.

The following list summarizes the results obtained from the present research as regards two general and ten specific hypotheses.

General Hypotheses

- 1 - Members of families of the 'Working Class' sample will exhibit significantly different scores on all dependent linguistic variables than members of families of the 'Middle Class' sample. (Partial Support)
- 2 - Mothers and sons of each sample will exhibit a more homogeneous use of linguistic variables than will mothers or sons across samples. (Supported)

Specific Hypotheses

- 1 - Working class families will exhibit a greater proportion of pronouns/total words than will middle class families. (Not supported)
- 2 - Working class families will exhibit a greater proportion of pronouns 'you and they' to total pronouns than will middle class families. (Supported)
- 3 - Working class families will exhibit a greater proportion of socio-centric sequences/total words than will middle class families. (Partial Support)

- 4 - Linguistic codes of working class families will exhibit a higher Cloze score than will the linguistic code of middle class families. (Supported)
- 5 - Middle class families will exhibit a higher proportion of the pronoun 'I'/total pronouns than will working class families. (Supported)
- 6 - Middle class families will exhibit a higher proportion of ego-centric sequences/total words than will working class families. (Not Supported)
- 7 - Middle class families will exhibit a higher proportion of subordinate clauses/total finite verbs than will working class families. (Partial Support)
- 8 - Middle class families will exhibit a greater proportion of passive verbs/total finite verbs than will working class families. (Supported)
- 9 - Middle class families will exhibit a higher proportion of the preposition 'of'/of + in + into than will working class families. (Partial Support)
- 10 - Linguistic codes of middle class families will exhibit a higher abstraction index score than will the linguistic codes of working class families. (Not Supported)

The analysis of specific relationships is thus completed. In Chapter V a summary and interpretation of these results will be presented along with suggestions for further research.

CHAPTER V

CONCLUSIONS

Introduction

The conclusions drawn in Chapter V are based upon linguistic content analyses of the oral code systems of Working Class and Middle Class mothers and teenagers. Data consist of analyses of oral discourse of mothers and their teenage sons while the family (father, mother and teenage son) was discussing social problems of concern to the family and specifically with issues the teenager would or already had encountered. The family discussed the following topics: age for obtaining a drivers license, adult rated movies, modern styles of dress, and teenage smoking. Sixteen families were involved in the research. Analyses were conducted on combined Working Class (WC) scores of mothers and teenagers versus combined Middle Class (MC) scores of the same family members. In addition, individual analyses examined differences among the four groups.

General Hypotheses

The first general hypothesis suggested that members of families of the WC sample will exhibit significantly

different scores on all dependent linguistic variables than members of the MC sample. In addition, it was predicted that WC families would use 'total pronouns', 'pronouns you and they' and 'socio-centric sequences' more frequently than MC families. WC families would also reveal a higher Cloze score than the MC. On all other variables, it was predicted that MC families would exhibit a higher frequency of usage than WC family groups. Results generally supported that prediction. Significant differences occurred in the predicted directions on five of the ten variables with two other variables yielding highly suggestive results. One of the ten variables, the AI, was not critical in distinguishing among any of the four groups.

Specifically, variables 'you and they' and 'socio-centric sequences' yielded significant differences between WC and MC as predicted. Two other variables, 'subordinate clauses' and 'ego-centric sequences', in which MC was predicted to have a higher frequency than WC, yielded significant results. Pronoun 'I' and preposition 'of' were suggestive in that they reached $\alpha = .15$ level of confidence.

Cloze procedure was one of the best predictors of difference between WC and MC as the WC linguistic code was more predictable ($\alpha = .005$) than the MC codes.

The Abstraction Index did not differentiate among any of the four groups. Two probable reasons exist for the



observed lack of difference between the two classes. First the Abstraction Index developed by Gillie and validated further by Haskins has only been employed with written materials and not oral as in this study. Particular differences between written and oral discourse may account for the lack of significance observed in the present research. One of the factors seems to be that written messages result in a greater amount of time spent in planning procedures and thus the result is a more formalized style of writing than the more informal style likely employed by family members orally discussing topics of concern to a teenager.

The second probable reason is that the Abstraction Index was employed on the basis of Bernstein's conceptualization that a MC code allowed for more abstract thinking with a greater number of relationships considered among objects. Thus one possible reason for not finding significance is that the measures employed in the Gillie Abstraction Index are not necessarily relevant to the ability for abstract thinking or more complex relationships being developed. Further discussions of differences between WC and MC will not include the Abstraction Index as it was the only variable of the ten employed which was not discriminatory among any of the four groups.

Seven of the remaining nine variables suggest differences between WC and MC individuals with five of the variables yielding significant differences.

If one looks only at class differences between teenagers, we observe that six of the nine variables yield significant differences. All differences except 'total pronouns' are in the predicted direction. Two other variables, 'pronoun I/total pronouns' and 'ego-centric sequences/total words' were suggestive but only reached an $\alpha = .20$ level of confidence. No differences were observed on 'socio-centric sequences'.

Mothers of both classes seem to suggest the reason for fewer significant overall differences between classes. Only one linguistic variable, 'socio-centric sequences', was critical in distinguishing between mothers. Four other variables (pronouns you and they, pronoun I, ego-centric sequences and subordinate clauses) yielded differences, though not significant, in the predicted direction.

Thus in terms of overall differences between a WC code and a MC code, some support was found, however the support was observed predominantly between the teenagers' codes.

The second general hypothesis suggested that mothers and sons within each class will exhibit a more homogeneous use of the linguistic variables than will mothers or sons across classes. This hypothesis arose from the conceptual differences between Bernstein and Labov. Bernstein hypothesizes that mothers have a greater influence on the development of their son's linguistic code than do the sons'

peer group. Thus, within class differences between mother and son should be less than the differences between sons of different classes. Labov suggests that peer groups have the most significant influence and thus the teenagers would have more similar linguistic codes than mothers and their sons.

Differences between teenagers and between teens and their mothers yielded evidence that would tend to support Bernstein's theoretical considerations rather than Labov's hypothesis. Teenagers from the two classes yielded similar results on three of the nine linguistic variables and significantly different results on six of the nine variables. (The Abstraction Index is not considered as it seems irrelevant as a critical variable among any of the four groups.)

Teenagers yielded significant differences on Cloze score, total pronouns, pronouns you and they, subordinate clauses, passive verbs, and the preposition of. Pronoun I and ego-centric sequences were observed in the predicted direction, but differences were at the $\alpha = .20$ level of confidence. No differences existed between the teenagers in socio-centric sequences.

Mothers were different between classes on Cloze Procedure and socio-centric sequences but equivalent on all other variables.

On the other hand, WC mothers and teenagers were similar (not significantly different) on six variables and only different on three: Pronoun I, Subordinate clauses and passive verbs. MC mothers and teenagers were similar on five variables but different on total pronouns, socio-centric sequences, pronoun I and subordinate clauses.

Thus it is observed that the mother seems to have a more significant influence on her teenage son than does the son's peer group. The mother's influence is greater in the WC than for the MC. Support for Bernstein's thesis was obtained for teenagers. Neither theorist provided hypotheses on similarities or differences among the maternal parents between the two social classes.

The following chart suggests the relationships among the four groups of individuals as they are ranked in terms of frequency of use of a particular variable. A rank of '1' indicated that the group employed that variable more frequently than any other group.

Variable	Classes and Groups			
	WT	WM	MT	MM
Pronouns	2	3	1	4
Pronouns You and They	1	2	4	3
Socio-centric sequences	3	2	1	4
Pronoun I	2	4	1	3
Subordinate Clauses	4	2	3	1
Ego-centric sequences	3	4	1	2
Passive verbs	4	2	1	3
Preposition of	3	2	1	4
Totals	22	21	13	24

Chart 2.--Group ranking in terms of usage of eight linguistic variables.

The MC teenagers' code employed the variables most frequently on all variables except 'pronouns you and they' and 'subordinate clauses'. The sum of ranks also suggests in addition to the social class differences between teenagers, that MC mothers have a greater influence on their sons than do the sons' peer groups, MT. Although the rankings do not suggest the same for MM and their influence on MT, MM and MT are similar on five of nine variables whereas WT and MT are similar on only three of nine variables.

In the following section, each hypothesis is discussed in terms of support from combined WC groups versus MC groups and also in terms of individual group support.

Individual Hypotheses

The first hypothesis suggested that WC families will exhibit a greater proportion of pronouns/total words than MC families. Combined scores did reveal significant differences between the two classes, however, individual group analyses suggest that MT have a significantly greater frequency of use of pronouns than other groups. No apparent reasons can be found for the reversal of the predicted relationships with teenagers, although not with mothers.

The second hypothesis predicted similar results as hypothesis one but in terms of the proportion of pronouns you and they to total pronouns. Both combined scores and individual comparisons provide support for the hypothesis. Individual support came predominantly from teenager differences. MM appear more like WC family members as revealed in many of the hypotheses and the chart providing rankings of groups on each variable (p. 86).

Hypothesis three as with hypotheses one and two, predicted greater usage by WC members. WC families should exhibit a greater proportion of socio-centric sequences/total words. Although combined WC versus MC scores resulted

in significant differences, individual group comparisons are tentative because of the infrequent use of socio-centric sequences in the discussions. Support is partially provided except for WT who were significantly different from both mothers groups but not from MT.

Two WM and five MM used no socio-centric sequences while four WT and three MT used no such variable. Proportions of usage by the four groups were: WT = .001; WM = .002; MT = .0025; and MM = .0005. Thus with the no usage of socio-centric sequences by half the sample and very infrequent usage by the remainder of the sample, interpretations of the results would be highly suspect.

Hypothesis four was the best predictor of differences between social classes. Taylor's Cloze Procedure applied to WC members' code systems resulted in a much greater predictability score than when applied to MC members' code systems. Further clarification has been provided to Bernstein's somewhat vague description of 'predictability' as he applied that concept to WC and MC code systems. Even though a very small sample of University freshmen and sophomores were employed to fill in the blanks of the experimental sample's messages, highly significant results were obtained. Greater application of the Cloze technique in language behavior research would appear to provide fruitful insights into sociolinguistic behavior.

The remaining six hypotheses all predicted that MC families would have a larger frequency of-use-index than that exhibited by the code systems of WC families.

Hypothesis five concerned the proportions of the pronoun I/total pronouns. Only partial support is provided for this hypothesis. Combined scores were suggestive ($\alpha = .15$) as were individual analyses. MT exhibited the largest index score followed by WT, MM and WM. With larger samples and greater control of the kinds of samples selected, the pronoun I might well be a significant variable differentiating restricted and elaborated codes as employed by WC and MC, respectively.

Hypothesis six, the proportion of ego-centric sequences/total words, is interpretable much like that for hypothesis 3, or socio-centric sequences/total words. Although combined MC versus WC scores were significantly different in the predicted direction, no significant differences occurred among individual groups. Rank ordering of the groups in terms of frequency of use of ego-centric sequences was in the predicted direction, however. Proportions of frequency of use were very low as follows: WT = .0135; WM = .011; MT = .019; and MM = .016. Low frequency of usage probably suggests the reason for lack of significant differences.

Hypothesis seven suggested that MC families would use a greater proportion of subordinate clauses/total finite verbs than WC families combined scores supported that prediction (α .05). Only partial support was provided by individual comparisons. MM used the most subordinate clauses and WM were second although not significantly different from the MM scores. MT were third and significantly greater in usage than fourth ranked WT.

Hypothesis eight predicted that MC would use a greater proportion of passive verbs/total finite verbs than would WC families. No differences were observed between combined scores, however partial support was provided from individual comparisons, predominantly from teenager differences. MT used the passive verbs most frequently and significantly more so than WT. WM, second in terms of most frequent usage, used a significantly greater proportion than their teenage sons. Once again there exists a problem in interpretation because of infrequent use of passive verbs. One WM, three WT and one MT used no passive verbs. Proportions of usage were very low: WT = .016; WM = .0345, MT = .048, and MM = .0315.

Hypothesis nine suggested a greater proportion of use of the preposition 'of'/of + in + into by MC than WC families. Combined analyses were only suggestive (α = .15). Individual support was provided by significant differences observed

between MT and WT. One interesting observation is that mothers were very infrequent users of the preposition 'into' while teenagers used both 'in' and 'into' very infrequently or not at all. Thus the proportion of 'of'/of + in + into is greatly increased. What affect this might have overall is not clear at this time.

The final hypothesis concerned with the abstraction index was discussed earlier. Two suggested reasons for the Abstraction Index not being discriminative among the four groups were its application to oral rather than written messages, and the conceptual inadequacy for employing the variable.

Summary and Interpretations

In summary, seven of the ten hypotheses provided support on the directional hypotheses although hypotheses 5 and 9 only reached the $\alpha = .15$ level of confidence. Individual support for the ten hypothes was mainly gained from teenager differences. Eight of the ten hypotheses received partial support from analyses of WT and MT. Hypothesis one was not supported in that the observed relationship was in the opposite direction of that predicted. Hypothesis ten suggests that the Gillie Abstraction Index may not be applicable with the kinds of samples employed or with the oral code systems.

From the data analyzed in the present research, it appears that Bernstein's theory of sociolinguistic behavior or restricted and elaborated code systems, is supported generally and specifically on many of the individual linguistic variables. In that mothers of the two classes were significantly different on only one variable, socio-centric sequences, a slight modification in Bernstein's theory may be desirable. That is, that age may in the long run override any differences in restricted and elaborated code systems which appear at earlier ages. (Bernstein had found differences at ages 5, 12 and 16.)

A further consideration must be made in light of the particular design employed in this research. Mothers and their sons discussed the topics while at home and in interaction with one another. Thus it is possible that both WC and MC families would employ a common restricted code. Bernstein's research and theory suggests that an elaborated (MC) code user can also use a restricted code and frequently does when in closely related groups such as families, prison groups, and close friends. It would seem that observed differences are all the more significant in light of this conceptualization. However, this reasoning might place some qualification on the stated support for Bernstein's rather than Labov's predictions that mothers have a greater influence on the code system of their sons than do peer

groups as Labov predicts. Under the present design, the researcher perhaps biased the results in favor of the Bernstein prediction.

Both Lawton and Robinson had suggested that given appropriate design features, restricted code users could be forced to use "something that approaches an elaborated code". Certainly more research with carefully created designs must be employed to further test the hypothesis that WC or restricted code users can also employ an elaborated code. In an environment as constructed in the present research, it was found that where both classes might well use a restricted code, significant differences were obtained.

In the first chapter the writer drew an analogy between the effect that a machine language has upon the information processing of a computer with that of the human linguistic code system and its probable effect upon human information processing. Although the present study was not designed to determine effects of restricted and elaborated codes on further educational potential, and in essence, one's Weltanschauung, Bernstein (1961), provides considerable explanation of patterns of difficulty which the working class student might have in trying to cope with education as it is given in our schools. These patterns of difficulty are only suggestive from past research. Bernstein states that we can say that the probability of finding a pattern

of difficulties is greater if the pupil's origin is lower working-class.

Thus a longitudinal study is necessary in order to determine the possible detrimental effect that a restricted code might have on a pupil's information processing abilities. Only with such studies will one be able to begin to understand and thus facilitate the lower working class individual in preparing to cope with modern society and white middle-class school systems. And in turn one would be able to better adapt our school systems to different subsets of people in our society.

The present chapter discussed particular and general conclusions regarding differences between restricted and elaborated linguistic code systems as they relate to Working Class and Middle Class families respectively. Some implications were suggested in terms of further research into socio-linguistic behaviors. The final chapter will briefly summarize the research reported in previous chapters.

CHAPTER VI

SUMMARY

The research reported here was based upon content analyses of the responses of eight Working-Class family discussions and eight Middle-Class family discussions. The 16 families all resided in the Holt, Michigan area and all teenagers, age 14 to 16, attended a common High School in Holt. Ten hypotheses concerning different linguistic variables were tested by developing proportions for frequency of usage of the ten variables. Only the code systems of mothers and their sons were analyzed in this study.

The ten hypotheses were developed from the socio-linguistic theory proposed by Basil Bernstein of the University of London. Professor Bernstein proposes that family control patterns within Working Class families give rise to a linguistic code system (restricted) which is significantly different from the code system (elaborated) developed in Middle Class homes. The differences, both structural and lexical, between the two codes give rise to quite different means of perceiving identical phenomena (social, intellectual and emotional objects). A key difference in the two codes is the degree of explicitness or intent which each expresses. An elaborated code expresses a greater degree of intent and thus reflects a different form of the structuring of

feeling and so the very means of interaction and response to the environment, i.e., a different means of processing information.

From Bernstein's sociolinguistic theory it is suggested that the linguistic code of a WC teenager will be more similar to his mother than it will to his peer groups. The same prediction is made for MC teenagers. William Labov of Columbia University suggests the opposite, that is, that the peer group has the greatest influence on a teenager's code system and thus the teenagers of Working and Middle class societies will be more similar than the mother-teenager codes within the same social class.

Family discussions of social issues were taped and transcribed. It was predicted that mothers and teenagers of the same social class would be more similar than teenagers from different classes. Support was provided for this general hypothesis. It was also predicted that WC families would differ from MC families on the variables listed in the ten hypotheses. Again, support was obtained.

Specific hypotheses in which WC members would exhibit a greater proportion of frequency of use of the linguistic variable than MC members, were developed for proportions of pronouns/total words, pronouns you and they/total pronouns, socio-centric sequences/total words and the Taylor Cloze Procedure. Support for the hypotheses was obtained

for all but pronouns/total words. Cloze scores yielded the most significant criterial attribute of all variables in distinguishing between the two social classes.

For six hypotheses, codes of MC families were predicted to have a greater proportion of usage than WC members' code systems. These variables were: pronoun I/total pronouns; ego-centric sequences/total words; subordinate clauses/total finite verbs; passive verbs/total finite verbs; preposition of/of + in + into; and the Gillie Abstraction Index. The Abstraction Index was the only variable which did not distinguish between any pair of the four groups. All other variables yielded data strongly favoring the predicted direction although the greatest differences were found between teenagers and not mothers.

The data obtained for the present research provides evidence supporting Bernstein's socio-linguistic theory both for differences in codes systems between social classes and for a more significant influence of the mother, rather than the peer group, on the teenager's code system. The support for Bernstein's theory may be even more potent in that his sociolinguistic theory and research was based upon British social class systems whereas the present research was conducted in the United States where a quite different class system exists.

Needed research is on the refinement of linguistic

variables, specifically structural units based upon a generative grammar.

In addition, longitudinal research is urgently needed to determine the extent to which two code systems, restricted and elaborated, may influence educational potential and communicative effectiveness. That is, how does the differential use of communication codes affect human information processing, human problem solving, decision-making, and thinking?

REFERENCES

- Pereiter, Carl. "The Relative Importance of Verbal and Nonverbal Factors in Cultural Deprivation: Evidence from Children with Sensory Handicaps," (Urbana, Ill.: Institute for Research on Exceptional Children [mimeo], 1965).
- _____, and Ingemann, Siegfried. Teaching Disadvantaged Children in The Preschool, Englewood Cliffs, N.J.: Prentice-Hall, 1966.
- Berlo, David. The Process of Communication, New York: Holt, Rinehart & Winston, Inc., 1958.
- Bernstein, Basil. "A Public Language: Some Sociological Implications of a Linguistic Form", Brit. J. Sociol., 10, 311, 1959.
- _____. "Elaborated and Restricted Codes: An Outline", Sociological Inquiry, New York: 36 (2), 1966, p. 259.
- _____. "Linguistic Codes, Hesitation Phenomena and Intelligence", Language and Speech, 5, Part 1 (October-December 1962a), pp. 31-46.
- _____. "Social Class, Linguistic Codes, and Grammatical Elements", Language and Speech, 5, Part 4 (October-December, 1962a), pp. 221-240.
- _____. "Some Sociological Determinants of Perception", Brit. J. of Sociology, 1958, p. 161.
- _____, and Henderson, D. "Social Class Differences in the Relevance of Language to Socialization", Sociology, 3, (1), January, 1969.
- Bloom, Benjamin S., Davis, Allison, and Hess, Robert. Compensatory Education for Culture Deprivation, New York: Holt, Rinehart and Winston, Inc., 1965.
- Brown, Roger. Social Psychology, New York: Free Press, 1965, See Chapters 6 and 7.
- Chomsky, Noam. Syntactic Structure, The Hague: Mouton, 1957.
- Costello, Daniel E. "Study of the Relationships Between Family Communication Patterns and Adolescent Autonomy," Unpublished dissertation, Department of Communication, Michigan State University, East Lansing, Michigan, 1969.

- Dane, F. P. "The Identification and Measurement of Environmental Process Variables That are Related to Educational Achievement," Unpublished Ph.D. dissertation, University of Chicago, 1963.
- Gillie, Paul J. "A Simplified Formula for Measuring Abstraction in Writing," J. of Applied Psychology, Vol. 41 (4), 1957.
- Goldman-Hisler, F. "Continuity of Speech Utterance: its Determinants and its Significance," Language and Speech, Vol. 4, 1961.
- Jespersen, O. The Philosophy of Grammar, London, 1924.
- Labov, William. The Study of Nonstandard English, published by the National Council of Teachers of English, 1970.
- Lawton, Denis. Social Class, Language and Education, Routledge and Kegan Paul, London, 1968.
- Miller, James. "Living Systems: Basic Concepts," Behavioral Science, Vol. 10, No. 3, July, 1965.
- Newell, A., Shaw, J. C. & Simon, H. A. "Elements of a Theory of Human Problem Solving," Psychological Review, 65 (3), 1958, 151-166.
- Piaget, Jean. The Language and Thought of the Child, New York: Meridian Books, 1955.
- Robinson, W. P. "The Elaborated Code in Working Class Language," Language and Speech, Vol. 8, 1965.
- Sapir, F. Culture, Language and Personality, Univ. of Calif. Press, 1956, p. 70.
- Schatzman, Leonard, and Strauss, Anselm. "Social Class and Modes of Communication," The American Journal of Sociology, 60:329-38, 1955.
- Shuy, Roger W. "Bonnie and Clyde Tactics in English Teaching," The Florida F. L. Reporter, V. 7 (1), 1969. A paper presented at the 1968 NCTE Convention in Milwaukee.
- Taylor, W. "Cloze Procedure: A new tool for measuring readability," Journalism Quarterly, 30, 1953, pp. 415-433.

_____. In Trends in Content Analysis (ed.) Ithiel de Solo
Pool. U. of Illinois Press, 2nd. ed., 1964, pp. 78-88.

Thayer, Lee. "Communication and Organization Theory," in
Human Communication Theory: Original Essays,
(ed.) Frank, F.X. Dance, New York: Holt, Rinehart
& Winston, Inc., 1967.

Watzlawick, Paul, Peavin, Janet, and Jackson, Don. Pragmatics
of Human Communication, New York: W. W. Norton &
Company, Inc., 1967.

Whorf, B. L. Language, Thought and Reality, New York:
Wiley & Sons, 1956.

APPENDIX A
LETTER SENT TO RESPONDENTS

LETTER SENT TO RESPONDENTS

July, 1968

Dear Mr. & Mrs. _____:

Most of us recognize that what we say to others is pretty important. We are interested in the important communication within families; that is, what do families talk about and how do they talk about certain topics. We would, therefore, like to study the communication which goes on between members of a family.

We are graduate students in the Department of Communication at Michigan State University. Our interests are in looking at patterns of discussion within families as they relate to other kinds of social activity, such as, where you go to look for ideas about particular topics, and how you go about making decisions about things of concern to the family.

Your family (father, mother, and teen-age son) would be asked to participate by sitting and discussing a few topics, such as school activities, dating, and so forth. This discussion would take about one half hour followed by a short questionnaire concerning how you make the daily decisions of concern to your family. You can be assured that the answers of any specific family will not be made public. We are interested in groups of families only, and in their patterns of discussion.

In two or three days we will be contacting you by phone to ask for your cooperation in discussing among yourselves, topics concerned with areas of interest to you and your family. We hope that you will agree to help us in our graduate programs.

Thank you for your time in reading this letter. We hope that you will be interested in our research and find an hour in your day in which to help us.

Sincerely,

Duane D. Pettersen
Graduate Assistant

Daniel F. Costello
Graduate Assistant

APPENDIX B
LIST OF DISCUSSION QUESTIONS

DISCUSSION QUESTIONS

Below are a series of situations which are discussed in most families at one time or another. Families seem to handle the problems in different ways. We would like for you to discuss among yourselves as many points of view that you are familiar with. From these different views, select a view which represents the thinking of your family.

Please spend some time with each of the situations. There are no right or wrong answers...only what your family feels is the most appropriate answer for the situation. You will have 30 minutes to discuss all four situations below. Don't worry about the time; we will inform you when the half hour is up.

- (1) It has been proposed that the minimum age for getting a drivers' license be raised from age 16 to age 18. Discuss the different points of view that you are familiar with on this topic, and select one which represents the thinking of your family.
- (2) Some parents feel that if their teen-age son or daughter wants to smoke, the choice should be left up to the teen-ager. Other parents insist that their teen-age son or daughter may smoke only when the parents consider them ready to smoke. Discuss the different points of view that you are familiar with on this topic, and select one which represents the thinking of your family.
- (3) Some parents allow their teen-age son or daughter to go to movies based on violence, sex, and other adult themes. Other parents regard films recommended for adults only as strictly off-limits, until the teen-ager is older and more mature in his thinking. Discuss the different points of view that you are familiar with on this topic, and select one which represents the thinking of your family.
- (4) Some parents feel that their teen-age son or daughter should be allowed to wear their hair or clothes in keeping with the current fads. Other parents insist that conformity to teen-age fads is unnecessary and that teen-agers should leave the final decision up to the parents. Discuss the different points of view that you are familiar with on this topic, and select one which represents the thinking of your family.

APPENDIX C
QUESTIONNAIRES

CHILD'S QUESTIONNAIRE

To begin with...what specific topics are discussed most often in your family at meal-time?

I'd like you to read each of the following questions carefully... then place an "X" in the blank in front of the answer you consider most appropriate. Please choose only one answer for your father and one answer for your mother for each question.

- 11-12 About how often would you say your parents ask you for your opinion on family decisions?

MOTHER

☐ Several times a week
☐ About once a week
☐ Once or twice a month
☐ Less than once a month

FATHER

☐ Several times a week
☐ About once a week
☐ Once or twice a month
☐ Less than once a month

- 13-14 If your parents said that they depended a great deal on your judgment regarding family decisions, would you believe them?

MOTHER

☐ Yes
☐ I guess so
☐ Probably not
☐ No

FATHER

☐ Yes
☐ I guess so
☐ Probably not
☐ No

- 15-16 Compared with other teen-agers...are you more likely, or less likely...to be asked by your parents for opinions on family decisions?

MOTHER

☐ More likely
☐ Less likely
☐ About the same

FATHER

☐ More likely
☐ Less likely
☐ About the same

- 17-18 In regards to family decisions, would you like to think your parents consider your opinions?

MOTHER

☐ Yes
☐ I guess so
☐ Probably not
☐ No

FATHER

☐ Yes
☐ I guess so
☐ Probably not
☐ No

19-20 When you discuss family decisions with your parents, what part do you usually play?

MOTHER

_____ I talk mostly
 _____ I mainly listen
 _____ A little of both

FATHER

_____ I talk mostly
 _____ I mainly listen
 _____ A little of both

Now, I would like for you to read about some problems that teen-agers your age sometimes face. Listed below are some of the possible ways of finding answers to these problems.

If you were concerned about finding a part-time job and uncertain as to what choice to make, how often would you look for . . .

	<u>OFTEN</u>	<u>NOW & THEN</u>	<u>SELDOM</u>	<u>NEVER</u>
21. <u>IDEAS</u> from newspapers	_____	_____	_____	_____
22. <u>IDEAS</u> from your mother	_____	_____	_____	_____
23. <u>IDEAS</u> from television	_____	_____	_____	_____
24. <u>IDEAS</u> from others your age	_____	_____	_____	_____
25. <u>IDEAS</u> from magazines	_____	_____	_____	_____
26. <u>IDEAS</u> from your father	_____	_____	_____	_____
27. <u>IDEAS</u> FROM MOVIES	_____	_____	_____	_____
28. <u>IDEAS</u> from other relatives	_____	_____	_____	_____

If you needed to buy clothes for school and uncertain as to what choice to make, how often would you look for . . .

	<u>OFTEN</u>	<u>NOW & THEN</u>	<u>SELDOM</u>	<u>NEVER</u>
29. <u>IDEAS</u> from newspapers	_____	_____	_____	_____
30. <u>IDEAS</u> from your mother	_____	_____	_____	_____
31. <u>IDEAS</u> from television	_____	_____	_____	_____
32. <u>IDEAS</u> from others your age	_____	_____	_____	_____
33. <u>IDEAS</u> from magazines	_____	_____	_____	_____
34. <u>IDEAS</u> from your father	_____	_____	_____	_____
35. <u>IDEAS</u> from movies	_____	_____	_____	_____
36. <u>IDEAS</u> from other relatives	_____	_____	_____	_____



37. On matters such as jobs and clothing, if you could ask for ideas from only one of your parents, which parent would you ask?

_____Mother _____Father

Now here is a different kind of question. Place an "X" in the blank in front of the answer you consider most appropriate.

38. If you had just bought new clothes for school, how sure would you be that you had made the best choice possible?

_____Very sure
 _____Sure
 _____Not sure

39. If you had just joined a new club at school, how sure would you be that you had made the best choice possible?

_____Very sure
 _____Sure
 _____Not sure

40. If you had just accepted a part-time job for this summer, how sure would you be that you had made the best choice possible?

_____Very sure
 _____Sure
 _____Not sure

41. Finally....just a few more questions about yourself... what is your age? _____

42. And what was the last grade you completed in school? _____

43. Are you taking or going to take a college prep or vocational or business training courses in high school?

_____College prep.
 _____Vocational
 _____Business

44. What subject is easiest for you? _____

45. What subject is hardest for you? _____

46. For the first 10 years of your childhood, what state or country did you live in for most of these years? _____

Did you live primarily in a rural (farm) or urban (city) area during this time? _____rural _____urban

47. Do you speak a language other than English? ☐ Yes ☐ No

What language? _____

Does anyone else in your family speak it? ☐ Mother ☐ Father

Is it used frequently in the home? ☐ Yes ☐ No

MOTHER'S QUESTIONNAIRE

To begin with...what specific topics are discussed most often in your family at meal-time?

I'd like you to read each of the following questions carefully... then place an "X" in the blank in front of the answer you consider most appropriate. Please choose only one answer for each question.

In general, how are most decisions made between you and your teenage son on the following situations . . .

11. If your son needed new clothes for school...does he usually choose his own, or do you decide for him?

☐ I always decide for him
☐ I often decide for him
☐ Every now and then I decide for him
☐ I seldom decide for him
☐ I never decide for him

12. In regards to your son's friends...does he usually choose his own, or do you suggest who they should be?

☐ I always suggest to him
☐ I often suggest to him
☐ Every now and then I suggest to him
☐ I seldom suggest to him
☐ I never suggest to him

13. When your son goes out with others his own age...does he usually come home when he wants to, or do you usually remind him of what time to be home?

☐ I always remind him
☐ I often remind him
☐ Every now and then I remind him
☐ I seldom remind him
☐ I never remind him



14. In regards to your son's dating...does he usually determine how often he goes out, or do you tell him when he is allowed to date?

☐ I always tell him
☐ I often tell him
☐ Every now and then I tell him
☐ I seldom tell him
☐ I never tell him

15. Finally...a few questions about yourself...what is your age? _____

16. And what was the last grade you completed in school or college? _____

17. How many children do you have living? _____

What are their ages? _____

18. Does anyone else live with your family? Who?

19. Do you speak a language other than English? ☐ Yes ☐ No

What language? _____

Does anyone else in your family speak it? ☐ Husband
☐ Teen-age Son

Is it used frequently in the home? ☐ Yes ☐ No

20. For the first 10 years of your childhood, what state or country did you live in for most of these years? _____

Did you live primarily in a rural (farm) or urban (city) area during this time? ☐ rural ☐ urban

21. What is your family's religion?

☐ Protestant
☐ Catholic
☐ Jewish
☐ Other

FATHER'S QUESTIONNAIRE

To begin with...what specific topics are discussed most often in your family at meal-time?

I'd like you to read each of the following questions carefully... then place an "X" in the blank in front of the answer you consider most appropriate. Please choose only one answer for each question.

In general, how are most decisions made between you and your teenage son on the following situations . . .

11. If your son needed new clothes for school...does he usually choose his own, or do you decide for him?

☐ I always decide for him
☐ I often decide for him
☐ Every now and then I decide for him
☐ I seldom decide for him
☐ I never decide for him

12. In regards to your son's friends...does he usually choose his own, or do you suggest who they should be?

☐ I always suggest to him
☐ I often suggest to him
☐ Every now and then I suggest to him
☐ I seldom suggest to him
☐ I never suggest to him

13. When your son goes out with others his own age...does he usually come home when he wants to, or do you usually remind him of what time to be home?

☐ I always remind him
☐ I often remind him
☐ Every now and then I remind him
☐ I seldom remind him
☐ I never remind him

14. In regards to your son's dating...does he usually determine how often he goes out, or do you tell him when he is allowed to date?

☐ I always tell him
☐ I often tell him
☐ Every now and then I tell him
☐ I seldom tell him
☐ I never tell him

15. Finally...a few questions about yourself...what is your age? _____

16. And what was the last grade you completed in school or college? _____

17. What kind of work do you do or usually do?

What type of business or industry do you work for?

18. What was your family's approximate total annual income for last year (1967)? _____

19. Do you speak a language other than English? ☐ Yes ☐ No
What language? _____

Does anyone else in your family speak it? ☐ Wife
☐ Teen-age son

Is it used frequently in the home? ☐ Yes ☐ No

20. For the first 10 years of your childhood, what state or country did you live in for most of these years?

Did you live primarily in a rural (farm) or urban (city) area during this time? ☐ rural ☐ urban

APPENDIX D

INSTRUCTIONS AND SAMPLE MESSAGE

FOR CONDUCTING TAYLOR'S CLOZE PROCEDURE

INTRODUCTION AND INSTRUCTIONS

Introduction

I'm conducting some research that to me is very important and I hope that you will consider it important and thus do your best on the materials that I'll hand out in a moment. It will take approximately 15 minutes to complete the exercise.

Now, many of you probably know that the nature of research is such that if I told you beforehand what I was trying to determine or what I was studying, that information might bias or influence your behavior and thus the results of this study. Psychological research shows that this is the case. In other words, you might try to help me out or hinder me in obtaining fairly accurate behavior on your part. I will explain in detail, afterwards, exactly what I'm trying to find out and how it might be relevant to you.

OKAY?

Instructions

If I said 'Red, white and ____.' What would you say? Now if I said 'Chickens cackle but ____ quack,' what would you say?

OK. That's the task I want you to do. You all have different messages. Work rapidly but try to fill in the exact word that you think is missing.

Any questions?

Begin.

A: I don't _____ they should be allowed _____ wear their hair as _____ as they want to. _____ clothes in the current _____. I think when you're _____ to school you should _____ dressed neat, in respect.

P: _____ all your long hair _____ lice in it.

C: Well _____ you really think about _____ it's really stupid to _____ long hair and clothes _____ if you start out _____ yourself halfway neat and _____ go through school that _____ and maybe you go _____ college that way, if _____ want to get a _____ with a big company _____ something they're gonna look _____ you before they look _____ anybody that's a beatnik _____ something.

B: That's more logical _____ that's more practical. That's _____ Uncle Sam gives you _____ hair cut when you _____ in the Army. I _____ know about the final _____ being left up to _____ parents, I think they should _____ to a decision together.

P: _____ right.

C: In the long _____ you'll probably end up _____ better friends, too because

A: _____, some of your long _____ friends wouldn't agree with _____ there.

C: Now, usually the _____ that are dressed neat _____ usually more intelligent anyways.

- A: _____ most of the kids _____ here don't have real
_____ hair, not what you'd _____ long for college kids.
_____ kids wear their hair _____ compared to them.
- B: Wearing _____ hair and dressing like _____, it takes
so much _____ their thought away from _____ else. They
spend too _____ of their thoughts on _____ they dress.
- C: And it _____ costs a lot more _____
- B: Surprising if they take _____, look at the money _____
save on soap.
- A: I'll _____ the soap.
- B: They spend _____ that much on deoderant _____ they
can stand themselves.
- A: _____, they don't. They don't _____ bother with the
deoderant _____ of them. No, I _____ that, I don't
think _____ can insist on conformity _____.
- B: Well, the thing is _____ in a logical way, _____
should be all right. _____ why I'm in favor _____
dropping the driver's age _____ to 14.
- C: Actually when _____ going into fads and _____, you're
changing your mind _____ the time. You're changing _____
what everybody else is _____ theirs too. Whenever
you _____ your job the employers _____ want somebody
that isn't _____ to change his mind. _____ be wanting
you for _____ ideas and if you _____ changing then
you're not _____ use to them. So _____ gonna drop you
for _____ better.

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