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**COMMUNICATION SKILLS IN THE INNER CITY: EFFECTS OF RACE
AND DIALECT ON DECODING**

City University of New York

PH.D. 1981

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COMMUNICATION SKILLS IN THE INNER CITY:
EFFECTS OF RACE AND DIALECT
ON DECODING

by

THOMAS O. EDWARDS

A dissertation submitted to the Graduate
Faculty in Education in partial fulfillment of the
requirements for the degree of Doctor of
Philosophy, The City University of New York.

1981

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This manuscript has been read and accepted for the Graduate Faculty in Education in satisfaction of the dissertation requirement for the degree of Doctor of Philosophy.

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Abstract

COMMUNICATION SKILLS IN THE INNER CITY:
EFFECTS OF RACE AND DIALECT
ON DECODING

by

Thomas O. Edwards

Adviser: Professor Barry J. Zimmerman

Many studies have examined issues related to communication skills in young children while other investigations have explored and delineated linguistic features of young children's speech. This study integrated research in referential communication and studies of dialects, Standard English and Black English. The problem of this investigation was to determine the effects of race and dialect in communicative effectiveness. It further explored the relationship among race, dialect and communicative topics associated with the cultural background of the subjects being examined. It was hypothesized that decoding within race and within dialect would be more effective than decoding across dialect or across race. It was further hypothesized that decoding within dialects would be equally effective and the decoding of messages relating to stimuli associated with one's background would be more effective than

the decoding of messages of stimuli extrinsic to one's cultural frame of reference.

One hundred-five (105) Black children and fifty (50) White children between the ages of 8-10 years old were presented with the Sentence Repetition Test (Baratz, 1969) which assessed their abilities in Standard English and Black English. Three experimental groups of forty (40) each were organized from these results: Black Black English speakers, Black Standard English speakers, and White Standard English speakers. These children decoded Standard English and Black English messages, presented via tape-recorder, about stimuli that were designated Intrinsic to Ghetto Culture or Extrinsic to Ghetto Culture. While decoding messages, the children viewed a photograph of a young Black or White woman. These photographs served as the race of the speaker variable. The children received scores for accuracy in decoding and length of response time.

The results of this investigation showed that sex was not a factor in communicative effectiveness, race differences had minimal effects and dialect differences did significantly influence the communicative effectiveness of both listener and speaker. While Black and White children did not differ in the accuracy measure, Black children required significantly more time to respond to the stimuli whether presented in Standard English or Black English. Standard English was a more effective dialect for decoding even for Black English speakers. Black English speakers needed more time to re-

spond than both Black Standard English and White Standard English speakers. There were no significant differences reported for the type of stimuli except that Black children needed more time to respond. Several interactions were observed among the race and dialect factors.

The more effective performance by the White Standard English speaking children was explained by their greater sensitivity to language, and the better performance in Standard English by all children was attributed to the greater exposure of the children to this mainstream language. The various interactions suggested a situational context explanation for the use of dialect and stimuli associated with a cultural frame of reference. Several implications for education were listed, most notably the consideration of the additional time needed by Black English speaking children to respond.

Acknowledgements

I wish to express my sincere thanks and appreciation to many individuals who go unnamed, but however, were instrumental in bringing this research project to its fruition.

To Dr. Barry J. Zimmerman, the chairman of my committee, who provided academic guidance and inspirational leadership throughout this arduous task.

To Dr. Shirley C. Feldmann, who provided invaluable resources and personal encouragement.

To Dr. David J. Bearison who provided critical commentary and positive suggestions.

I am also very grateful to Mr. Stanley Russell who devoted his time and energy into developing the photographs used in the study, to Drs. Luberta Mays and Clara Alexander who recorded the messages, and to Ms. Patricia L. McFadden who aided in the collection of the data.

Special thanks go to the personnel of the New York City school system: the Metropolitan Educational and Development Research Project Committee of the Office of Educational Evaluation; the two principals of the schools used, whose cooperation and participation expedited the collection of the data; the teachers of both schools who cooperated eagerly in encouraging their pupils to participate in the study; and to the children of the classes who were simply marvelous in their participation.

Finally my gratitude is extended to my children, Loretta,

Kuturi and Tomia; and my wife Loretta, all of whom provided love and understanding which were essential for the completion of this research project.

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Chapter 1

Introduction

There have been many studies of referential communication in young children over the last decade and a half, yet very little is known about what contributes to communicative accuracy in minority group Black children. The reason for this paucity of knowledge is that most investigators have been concerned with general questions such as the existence of the egocentric hypothesis, developmental trends or socio-economic status differences. To date, relatively little attention has been devoted to the relationship of minority group dialects and communicative accuracy.

The major concern in the proposed investigation is the communicative effectiveness of speakers of Black English compared to speakers of Standard English. A systematic examination of race and dialect is proposed in order to determine if these factors affect communicative accuracy. Also, the cultural relevance of communicative topics will be explored to determine the pervasiveness of communicative patterns.

Features of Black English

The language of the majority of American Blacks differs from the language of mainstream White Americans. Since language is the most significant factor in verbal communication, one must empirically investigate the relationship between linguistic competence and communication accuracy or communicative competence in order to determine if differences in language background affect intergroup communication.

White Americans speak Standard English, which is characterized by the conventional grammatical patterns that are pervasive in the mainstream of the American society, such as business and educational institutions. Many Black Americans speak Black English, which is postulated as having its own grammar and syntax which are rather distinct from Standard English (Dillard, 1972; Labov, 1972).

There are primary linguistic differences between Black and Standard English (Smitherman, 1977). The most obvious difference between Black and Standard English is in pronunciation. For example, the /th/ sound in Black English is pronounced as /d/ or /f/, depending on its position within the word. The word, "then," with the /th/ sound in the initial position would be pronounced "den," whereas the final /th/ sound as in "mouth" would be pronounced as "mouf." On the other hand, a voiceless /th/ sound as in the word "thought" would be pronounced the same as in Standard English.

Other differences in pronunciation involve deletions of certain sounds such as: /r/ in "during" = "doing," "more" =

"mow;" /l/ in "help" = "hep," "will" = "wi"; several final consonants as in "hood" = "hoo"; "test" = "tes." Further, the vowel /i/ plus /ng/ in words such as "thing," "ring," and "sing" become "thang," "rang," and "sang," respectively. These are some of the more salient features in pronunciation which distinguish Black English from Standard English.

However, there is also a linguistic difference between Black and Standard English on the level of grammatical structure. Syntactically, in Black English, a "be/non-be" rule operates. The presence of "be" (also "bees" and "bes") denotes a condition that occurs habitually; while on the other hand, the absence of "be" indicates that the event or condition is one that does not recur. For instance,

"The train bees crowded" means that every
day the train is crowded, and

"The train crowded" means that today or
now the train is crowded.

Note that the use of "be/non-be" in Black English corresponds to the use of the conjugated forms of the infinitive "to be" in Standard English. Dillard (1972) has referred to the "be/non-be" rule as the presence or absence of the copula.

Black English speakers use "been" to express past action that has recently been completed. A speaker of Black English would say,

"She been late twice this semester" but
not "She been late twice last semester"

because

"this semester" indicates recent past action, while "last semester" expresses past action, distantly past action.

Another distinguishing characteristic of Black English is its lack of verb markers; that is, the same verb form is used for all subjects, singular or plural. Usually, the subject and number of the verb are marked by the context of the sentence or by some word in the sentence. There are definitely the concepts of plurality and possession in Black English, but the additions of (s) for plural and ('s) for possession do not exist. To illustrate,

"Two girl just left the room" and

"Mr. Brown store got burned down"

are sentences which show plurality (two) and possession (the position of Mr. Brown in the second sentence).

Black English speakers place emphasis on the subjects of sentences. For example, "The teachers, they git mad if we talk in class." As exemplified in the preceding sentence, the repetition of the subject in the form of the pronoun "they" is characteristic of Black English.

In Black English there is no concept of double negatives as in Standard English. The rules for negation in Black English are as follows, along with examples:

If the statement consists of only one clause, negate every item;

"Don't nobody never help me do my work" corresponds to Standard English

"No one ever helps me do my work."

If the statement consists of two or more clauses combined as one, all negatives indicate "positives":

"It ain nobody I can't trust" corresponds to the positive statement in Standard English,

"I can trust everyone."

And all negatives plus one positive indicate "negatives";

"It ain nobody I can trust" equals the negative statement in Standard English

"I can trust no one."

Other differences between Standard and Black English in grammatical structure include over-generalization of the /s/ rule,

"They does" or "three childrens";

omission of the /ed/ in the past tense or past participle construction,

"I look for him all day yesterday" and

"This guy I know name Malcolm;"

and "done" used by itself to indicate past action,

"I done my homework yesterday" corresponds to

"I did my homework yesterday."

These Black English sounds and patterns definitely exist, but do they impede communication between Black and White Americans? The significant question is, therefore, do these language differences result in differences in communication accuracy? In other words, is there a one-to-one correspondence between linguistic performance, meaning facility in

speaking grammatically correct Standard English, and communicative competence or communication accuracy, the degree to which intended meaning of the speaker is understood by the listener?

One of the considerations of this present investigation is to determine if these differences in pronunciation and syntactic structures affect communicative competence.

Linguistic Performance vs. Communicative Competence

The acquisition of language or linguistic competence occurs at a very early age. For example, McNeill (1966) indicates that children achieve grammatical competence by the age of three and a half years. Furthermore, by the seventh or eighth year, children's linguistic performance is comparable to that of adults, and the only major difference is in greater vocabulary knowledge possessed by adults. However, this linguistic performance cannot be construed as being synonymous with communicative competence. Several authors (Cazden, 1970; Hymes, 1964; Krauss and Glucksberg, 1970; Olson, 1970) have argued against the assumption that linguistic performance is equivalent to communicative competence and suggest that effective communication requires the development of other skills, many of them non-linguistic, such as the informational analyses of the stimuli as well as of the listener.

Communicative competence or communication accuracy can be conceptualized in the following manner which in no way suggests a one-to-one correspondence between language and communication. The communication situation can

be analyzed in terms of the following five sets of variables; (Figure 1, Theoretical Model of Referential Communication) attributes of the communicator (speaker or encoder), of the addressee (listener or decoder), of the channels (spoken or written), of the communication (message or encoding) and of the referent (Mehrabian and Reed, 1968). These five factors are considered the variables which determine the quality of communication accuracy. The communicator's attributes may be temporary or permanent in nature. These attributes include his subculture or reference group, cognitive development, encoding rules, and attitudes toward contents being communicated as well as toward the listener. The attributes of the listener correspond to the communicator's attributes with the exception that decoding rather than encoding rules are appropriate. A channel attribute refers to any aspect of communication which can alter the message in transmission, for example, feedback, rate of transmission, and number of channels used, that is, oral versus written or face to face versus telephone. The attributes of the message concern the structural quality of a communication such as its degree of redundancy, organization or objectivity. Lastly, the referent attributes are those qualities of the object, event or person being communicated about such as its ambiguity or complexity. A referent is ambiguous if it is not readily discernible. Complexity of the referent is determined by the number of parts and relationships contained in the structure of the referent, since the more complex the referent the greater the amount of in-

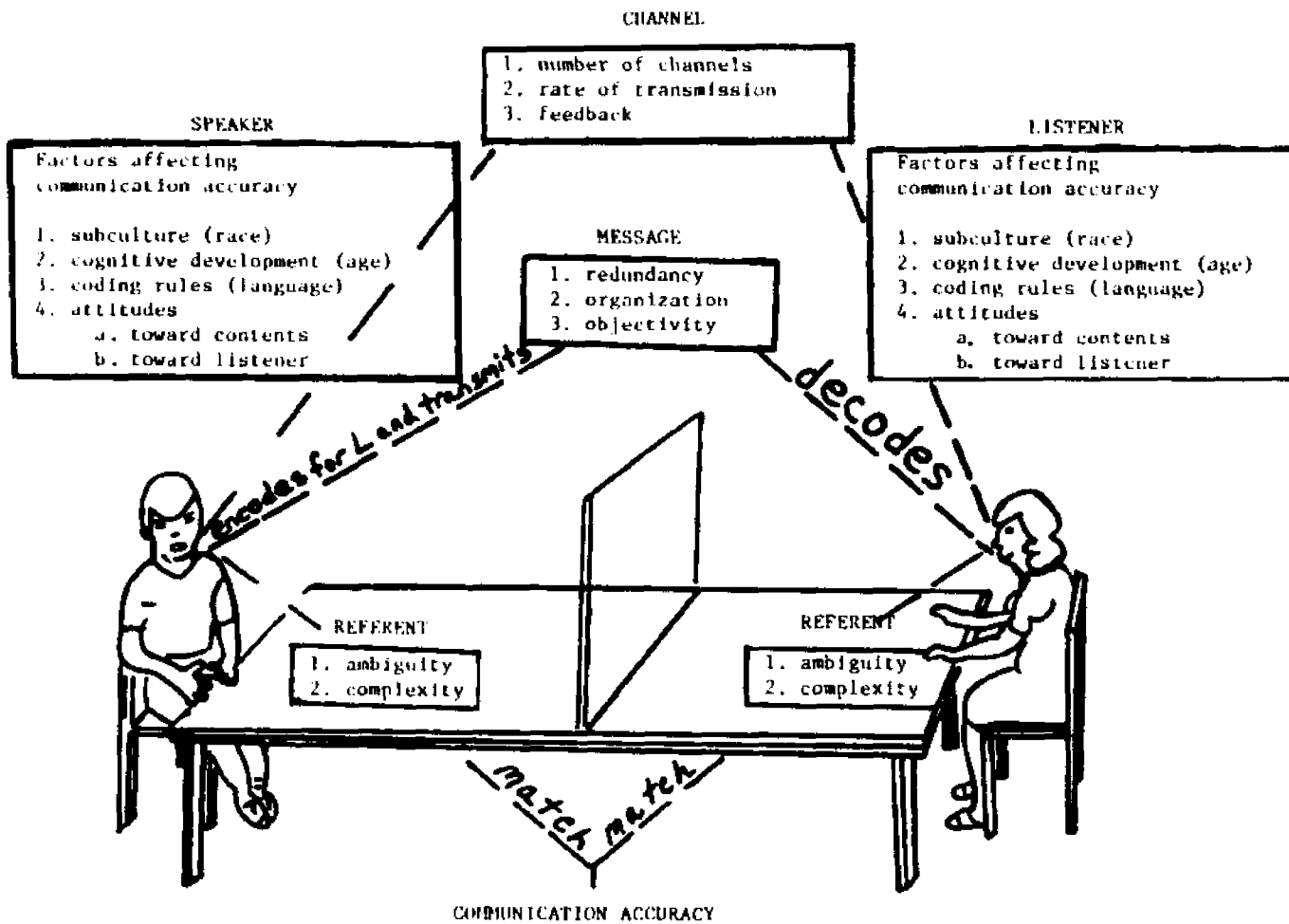


Figure 1

Theoretical Model of Referential Communication

formation needed to adequately specify it.

Instead of further considering the independent variables in isolation and in order to conceptualize more accurately the communication situation, consider the following paradigm. There are two participants referred to by the investigator as encoder and decoder. There is also a referent stimulus and one or more stimuli which are considered non-referent. The encoder's task is to present a message which will enable the decoder to select the referent from among the non-referents, and the decoder's task is to select the referent based on the message received from the encoder.

Models of Communicative Interaction

Still another conceptualization of communicative competence may be understood by viewing theoretical models of speaker-listener interactions. Rosenberg and Cohen (1966) proposed a two-stage stochastic model in which the speaker's encoding has two choices and the listener's decoding has a single choice. Their theory is based on experimental evidence obtained from speaker-listener interactions when word pairs (similar words, such as "woman"- "lady") are presented, and one word is designated as the referent while the other is non-referent. For the speaker, the encoding process operates in these two probabilistic stages: sampling and comparison. In the first stage, the speaker samples from his repertoire of associative responses (words) to the referent. The probability of a word being selected is determined by its associative strength to the referent. In the

comparison stage, the selected word from the sampling process is compared in associative strength to both the referent and the non-referent; the speaker will transmit a sampled word if there is a great difference between the associative strength of referent and non-referent, and that difference, of course, is in favor of the referent. The listener's response or choice is the result of a probabilistic process which is a function of the associative strength of the speaker's response to the stimulus word. The listener compares the associative strength of the clue word or stimulus both with the referent and with the non-referent and chooses as a function of the difference.

Flavell, Botkin, Fry, Wright and Jarvis (1968) have proposed a model of communicative competence based on listener evaluation. In this model, first the speaker encodes a message for himself; then he evaluates this message in terms of the listener's attributes that are relevant to the referent, non-referents and the potential message itself. After this evaluation, the encoder may alter his message to suit his listener. The recoding may be the same as the speaker's initial self-encoding, or it may involve either a modification of the original message or a completely new message. According to Flavell et al. (1968), the failure to alter the self-encoding in order to consider listener's attributes results in egocentric messages which are usually non-communicative.

Generally, these two models are consistent with each

other, even though the Rosenberg and Cohen's model (1966) is presented with greater specificity than the Flavell et al.'s model (1968).

In summary, the problem of the present investigation is to determine if there are race and dialect differences in referential communication due to distinctive language patterns. Furthermore, since linguistic performance is not synonymous with communicative competence, what are the language features that account for effective communication? It can be concluded that all persons, both Black and White, are linguistically competent, provided that they are eight years old or older (McNeill, 1966). That is, these individuals possess syntactic, semantic and phonological competence in their native language. However, do these same persons manifest communicative competence? Are there differences among these groups in communicative accuracy which can be explained in terms of their differences in language patterns? Moreover, are there other factors in their languages which can account for differences in communication accuracy, both qualitatively and quantitatively? In order to understand the role of dialect and race in communication accuracy one must examine the experimental studies relating Black English and race to communication. As one reviews the previous studies of referential communication which considered race as a major variable some of these questions can be partially answered; nevertheless, there remains a great amount to be learned about the role of the race variable,

due to inconsistent and controversial findings.

Chapter II

Review of Related Literature

Studies of Race and Communication Accuracy

While there have been a considerable number of studies concerned with the egocentric speech hypothesis (Cohen and Klein, 1968; Flavell et al., 1968; Glucksberg and Krauss, 1967; Glucksberg, Krauss and Weisberg, 1966; Krauss and Glucksberg, 1970; Krauss and Glucksberg, 1969; Maratsos, 1973; Meissner and Apthorp, 1976; Menig-Peterson, 1975; Mueller, 1972; Shatz and Gelman, 1973; and Wellman and Lempers, 1977), developmental trends (Asher and Oden, 1976; Asher and Parke, 1975; Bearison and Levy, 1977; Cohen and Klein, 1968; Flavell et al., 1968; Ford and Olson, 1975; Glucksberg, Krauss and Weisberg, 1966; Higgins, 1978; Higgins, 1977; Ironsmith and Whitehurst, 1978; Karabenick and Miller, 1977; Krauss and Glucksberg, 1969; Markman, 1977; Whitehurst, 1976; Whitehurst and Merkur, 1977; and Whitehurst and Sonnenschein, 1978), and social class (Alvy, 1973; Baldwin, Mc Farlane, and Garvey, 1971; Harms, 1961; Heider, 1971; Higgins, 1977; Krauss and Rotter, 1968; Peisach, 1965; Pozner and Saltz, 1974; Quay, Mathews and Scharzmueller, 1977; Rackstraw and Robinson, 1967; Ruth, 1966; and Schatzman and Strauss, 1955; only three have considered race as an independent variable. In two of the three studies (Heider, 1971 and Quay et al.,

1977) no race differences were found in communicative accuracy, but in the other (Baldwin et al., 1971) White dyads were significantly more accurate than Black dyads in the communication task.

Heider (1971) was interested in studying the effects of specific language variables on communication. Dependent variables were: (a) how many different things were said about the stimulus, (b) whether the whole stimulus or a part of it was referred to in the description, and (c) whether the description used "metaphorical" or "descriptive" language. Her design was basically as follows: (a) middle and lower class speakers would encode stimuli in a standardized communication situation; (b) she would then analyze the encodings to discover if any race or class differences could be found in those linguistic variables mentioned above; and (c) she would use the dependent variable of the first experiment as independent variables in a second experiment. In the first experiment, the sample included middle-class Whites, lower-class Whites, and lower-class Blacks. After practicing with an array of abstract figures and one of faces, the subjects were presented with five abstract arrays and then five arrays of faces. They were told to describe the target object, which was below the non-referent stimuli, all mounted on a cardboard, so that another child his age could select it from the others, based on the verbal description. Each encoding of each child was divided into units (a single statement or piece of information). Each unit was classified

on two dimensions: (a) whole-part or (b) inferential-descriptive. Heider found that there were class differences but no race differences. Lower class subjects produced fewer units, referred more to the whole stimulus and used more inferential language than did middle class encoders.

In the second experiment, the effects of coder group (particularly class) and the effect of encoding style on decision accuracy were the main concern. For example, one major difference between middle- and lower-class encodings was length. The middle-class encodings were redundant, and the repetitions were in different encoding styles--whole-inferential (WI) and part-descriptive (PD). Did the length and presence of both styles affect communicative accuracy? The same subjects in Experiment I were used for Experiment II. The same abstract and face arrays were used as the stimuli. The subjects were presented with encodings of the first experiment that were divided into six types: (1) Composite, (2) Complete WI, (3) Partial WI, (4) Complete PD, (5) Partial PD, and (6) Partial PI. The experimenter read each encoding and the subject pointed to the abstract figure or face in the array that he thought the encoder had been describing. In this part of the study Heider found that middle-class encodings were, across class of listener, better understood than lower-class encodings; middle-class decoding was superior to lower-class; and one race difference, lower-class White encodings of faces were slightly superior to lower-class Blacks. Otherwise, there were no other race differences

nor was there any general tendency for within-group codings to be superior to between-groups.

Baldwin et al. (1971) were interested in discovering whether there are differences between disadvantaged children and middle-class children in the use of language to exchange task-relevant information and if there are differences, to identify the characteristics of communications which account for the differences in accuracy and efficiency. The sample included Black and White fifth graders from low and middle SES backgrounds. Twelve students from each group were randomly assigned to dyads with the companion being of the same sex, race and SES group. The communication task was as follows: the encoder was given a card containing one picture; the decoder, seated on the opposite side of a partition, was given an array with seven pictures; no restrictions were placed on the dyad's verbal communication; the trial ended when the decoder showed the experimenter the picture that matched the one of the encoder. Ten different trials were presented. The material consisted of an index card (3 x 5 inch) with a single picture and a page (8½ x 11 inch) with seven different pictures on it. Each picture consisted of one figure that possessed four attributes, each attribute having one of two dimensions. This particular figure was a bird with the attributes of having a beret or crown, an open or closed beak, a fluffy or smooth tail, and knobby or straight knees. The dependent variable, communicative accuracy, was measured by the number of critical

attributes present in the selections made at the end of each task. There were ten tasks and four attributes, with scores ranging from 0 to 40. Significant differences were found for SES and race. Middle-class dyads were more accurate than lower-class dyads and White dyads were more accurate than Black dyads.

Communicative efficiency, based on the relationship between total verbal output (TVO) and communication accuracy, was also observed with significant differences for SES and race. White dyads and middle-class dyads were more efficient than their respective counterparts, Black dyads and lower-class dyads. The differences between SES were attributed to their differences in describing and requesting information about the figures; that is, the verbal exchanges of the middle-SES dyads included more critical attributes than the low-SES dyads. However, this same factor could not account for differences between racial groups and no other explanation was suggested by the authors.

In one other study, Quay et al. (1977) found social class differences in encoding but no race differences. These investigators were interested in examining the source of the SES and race differences in communication accuracy as reported by Baldwin et al. (1971). Were the explanations for these differences a result of encoding or decoding or both? To examine encoding and decoding separately, as a function of social group, encodings from children of each social class and racial group were presented to children from the same and

all other social class/racial groups. Using the same material and scoring procedure as Baldwin et al. (1971), Quay et al. (1977) instructed 10 eight- and nine-year old encoders from each of three populations: lower-SES Black, lower-SES White, and middle-SES White, to describe each stimulus picture to a classmate so that it could be selected from the array. The encodings were recorded on tape. For the decodings, 30 children from each group listened to the 10 encodings and selected from each set the picture which he thought was described. Quay et al. found that there were no main effects for decoding, but there were significant differences between groups on the main effect of encoding, with a difference between social class but not between racial groups.

Finally, a study by Krauss and Rotter (1968) has some relevance to race differences in communication accuracy. These investigators were interested in testing the hypothesis that communication between members of the same subcultural group is more effective than communication between members of different subcultural groups. In order to assure themselves that the sample included distinctively different subcultural groups, Krauss and Rotter used lower-class Black and middle-class White school children as their subjects. The lower-class Black children were designated the Low Status (LS) group and the middle-class White, the Middle Status (MS) group. In addition, the LS subjects were from a New York City public school in Harlem whereas the MS subjects attended a Catholic

parochial school in the borough of Queens. Even though there was no direct verbal exchange between the two groups of subjects, Krauss and Rotter predicted within class superiority in encoding and decoding, or, in other words, LS speakers would be understood more accurately by LS listeners than MS listeners; conversely, MS speakers would be better understood by MS listeners than by LS listeners. Secondly, LS listeners would respond with greater accuracy to messages from LS speakers than from MS speakers; conversely, MS listeners would respond more accurately to messages from MS speakers than from LS speakers.

The experiment was conducted in two different stages. In the first stage, 20 subjects (5 from each of these groups: LS 7 yrs., LS 12 yrs., MS 7 yrs., and MS 12 yrs.) named each of six novel graphic forms. From these names, two names for each figure from each age-status group were randomly selected and presented to 60 new subjects, 15 each corresponding to the above groups. A total of 48 names was read to each listener while the six novel figures were displayed. The listener's task was to select the figure based on the labels read by the experimenter. Krauss and Rotter's data did not support the hypotheses concerned with greater effectiveness of within status communication. On the other hand, they found that MS speakers were more effective whether communicating to MS or LS listeners and MS listeners were more accurate than LS listeners whether responding to MS or LS speakers.

From these studies of race differences in communication accuracy, no conclusive statements can be made concerning the relationship between race and communicative accuracy. First, there have been only a few studies. Secondly, there has been no consistency in the findings of these few studies. Heider (1971) and Quay et al. (1977) found no race differences in communicative accuracy, whereas Baldwin et al. (1971) did find race differences in communicative accuracy and efficiency. And finally, only one study has used a middle-class Black sample which is essential if race and class differences are to be studied independently (Baldwin et al., 1971). In addition, there are other methodological problems with these studies of race differences, such as asking subject to speak to an imaginary listener (Heider, 1971 and Quay et al., 1977).

Critical Analysis of these Studies

Race as an Independent Variable

In all the published studies that included race as an independent variable, socioeconomic status (SES) was also included as a major variable. Only in the Baldwin et al. (1971) study were race and SES independently varied and controlled. That is, these investigators included in their sample middle-class Blacks, middle-class Whites, lower-class Blacks and lower-class Whites. In the other two studies (Heider, 1971 and Quay et al., 1977) there were no Black middle-class subjects and the results have been interpreted in terms of class differences. If class differences are the

major concern of these studies, then why is a Black sample included? On the other hand, if race is a variable under investigation, then the possible source of confounding between class and race must be eliminated by implementing the proper type of design.

In addition, in the studies of race and communication accuracy, there have been no racially mixed dyads. Baldwin et al. (1971) randomly assigned twelve (12) subjects within each sex, race and SES group to dyads, that is, two Black middle-class boys, two White lower-class girls, etc. Heider (1971) did not divide the subjects into dyads, but each subject was given an encoding task, to describe the referent so that any other boy or girl the age of the subject could pick it out from other similar ones. Krauss and Rotter (1968) followed a similar procedure, simply asking their subjects to name figures as they were presented. In the Heider study not only were there no racially-mixed dyads, but there were no dyads whatsoever; the subjects spoke to imaginary listeners. Quay et al. (1977) used a similar procedure to the one employed by Heider (1971) but attempted across-race communication by having decoders from low-SES Black, low-SES White, and middle-SES groups listen to encodings from all three groups. More rigorous experimental designs are needed in order to assess adequately the effect of race on communication accuracy.

Methodological Considerations

Another major source of inconsistencies among the find-

ings relating race to communicative accuracy can be attributed to methodological divergences. There has been a wide range of stimuli used in these studies. Various types of demands have been made on perceptual and linguistic skills. Finally, there have been variations in the nature of the communication interaction.

The constant use of the same or similar stimuli would have generated data to aid in developing theory of race differences in communicative accuracy. Baldwin et al. (1971) and Quay et al. (1977) did use the same stimuli. They presented their subjects with sets of pictures, consisting of variations of one figure that possessed four attributes, each having two dimensions (i.e., attribute-hatness; dimensions-beret or crown). On the other hand, Heider (1971) and Krauss and Rotter (1968) used novel graphic forms, that is, abstract figures, since these forms were considered to have low codability: they were difficult to name, and elicited a wide range of verbal labels. Heider (1971) showed faces with different expressions.

In communication studies involving race differences, there have been varying degrees of demands on perceptual and linguistic skills. Heider (1971) required her subjects to make perceptual discriminations between the referent and non-referent which were novel designs or abstract stimuli.

Baldwin et al. (1971) and Quay et al. (1977) presented their subjects with nearly identical figures, as referent and non-referent. Subjects must be given practice to respond correctly to this type of perceptual discrimination task.

With her second type of stimuli Heider (1971) asked her subjects to describe the facial expressions or bodily postures of persons in drawings. This perceptual task involved being able to make discriminations from the perceived characteristics of the person or posture. If perceptual discrimination is involved in studies of referential communication between races, then it should be controlled so that it does not have the effect of a confounding variable.

In reference to linguistic skills in the Baldwin et al. (1971) and Heider (1971) studies, there was some demand on the vocabulary of the subjects. For example, the description of novel stimuli requires a certain amount of language facility in order that the encoder can appropriately label attributes. Likewise, the distinguishing attributes of the figures in the Baldwin et al. (1971) study must be encoded and transmitted to the decoder in order for effective communication to occur; this, also requires language ability. For the most part, however, the linguistic requirement for subjects in studies of referential communication between races has not been excessive.

In general, in past communication studies the content of the task was never examined as an issue. Many of the tasks used did not simulate real life situations well. The tasks

were highly artificial, using unusual cartoon-like characters. Many of these stimuli were depicted in inactive states, thus taxing linguistic skills of the speakers to a minor degree. No studies utilized stimuli which were familiar to the children and which depicted activity as well as static persons or characters.

Still, a final source of inconsistent findings may be the communicative interaction itself. There has been a wide range of communication tasks, some appearing almost like natural communication while others were designed strictly for the laboratory. For instance, in the Baldwin et al. (1971) study, the communicative interaction was very much like normal conversation. The dyads had face-to-face contact, the listeners were permitted to give feedback to the speakers, and there were no restrictions on the message length. Krauss and Rotter (1968) instructed their subjects to name figures and these labels were presented subsequently to other subjects. In the Heider (1971) and Quay et al. (1977) studies, the encoder was told that he was speaking to an imaginary listener. Specifically, Heider (1971) told her subjects to describe the referent "so that any other boy or girl his age could pick out that one from what he said about it if it was mixed up with all the others." p. 35.

Since communication accuracy is the major concern of the experimental procedure, a realistic communication paradigm, involving interaction between encoder and decoder, even if the interactive process is minimal, must be followed

in order to collect the proper type of data. Perhaps the more similar the communication task is to natural conversation, the greater the communicative accuracy.

It seems that a standard methodology of referential communication needs to be developed so that certain parameters are well understood. With the standardized procedures, investigators will be better equipped to interpret their findings in order that they can begin to build theories concerning the referential communication process.

Studies of Black English and Communication

Since Turner (1949) established the fact that African linguistic influences still existed in the Gullah language of the Black population of the Sea Islands, near the coast of South Carolina and Georgia, students of language began to investigate the speech of Black Americans without advancing denigrating hypotheses such as the "thick lips" explanation. (This refers to earlier conclusions by linguists that Blacks could not speak English properly because of their thick lips and sluggish tongues, Gonzales, 1922 and Krapp, 1925.) This objective attitude of students of language enabled researchers to conclude that the unique characteristics of the language of Black Americans may have had an origin other than incorrect reproductions of Southern White English; hence, the term "Black English" was coined, even though there have also been many other labels and phrases for the speech of Black Americans, such as, Negro Non-standard English, Negro English, Black American English, Black English Vernacular, etcetera.

Through the work of Bailey (1965); Dillard (1972); Labov (1972); Stewart (1967); and Wolfram (1979), Black English underwent scholarly investigations which enabled its study to be recognized as a legitimate, linguistic, psychological and educational enterprise. However, these works were only concerned with establishing the major phonological, syntactical and semantic differences between Black English and Standard English. Other studies attempted to describe the existence of Black English features in the speech of young children while simultaneously showing how Black English speech patterns interfered with young children's ability to learn to read Standard English (Baratz, 1969; Baratz and Shuy, 1969; Fasold and Wolfram, 1972; Gantt, Wilson and Dayton, 1974-75; Goodman, 1965; Hall and Freedle, 1973; Labov, 1972; Shuy, 1969; Shuy, Wolfram and Riley, 1968; Stewart, 1969; and Wolfram and Fasold, 1969. While there have been numerous descriptive studies of Black English (that is, investigations which show the existence of Black English patterns in the speech of young children), relatively few empirical investigations have been conducted (Baratz, 1969; Gay and Tweney, 1976; James, 1976; Marwit and Marwit, 1976; Marwit, Marwit and Boswell, 1972; Mays, 1977; Nurss and Day, 1971; and Seitz, 1975). Several studies have been concerned with Black children's perception of their language (James, 1976; and Mays, 1977), and others have measured the use of Standard English and Black English in young children (Baratz, 1969; Hall and Freedle, 1973; Garvey and McFarlane, 1970). However, once Black English has

been established as the dominant language of some children, there has been no substantial research which has examined the ability of speakers of Black English to communicate with others, either speakers of their own dialect or speakers of other dialects.

Even though no previous studies have directly examined communicative effectiveness and Black English, several investigations have considered aspects of the communication process and the language of Black children.

Peisach (1965) investigated the ability of children from different social backgrounds to comprehend the teacher's speech as well as the peer group's speech. The investigator hypothesized that a teacher's speech, which is usually middle class or Standard English, would be less familiar to lower-class children than to middle-class children, resulting in poorer comprehension by lower-class children. Significant differences were also predicted between the ability of Black and White children to comprehend teacher's speech. In addition, it was predicted that children from similar socio-economic and racial backgrounds would better comprehend speech spoken by their respective peers. Using the Cloze procedure (a method of deleting every nth word from a written passage), Peisach examined the relative success of first-grade and fifth-grade children, matched on social-class levels (SES), race and sex, to supply the missing word from the recorded and written speech of teachers and their respective peers. The comprehension of teacher's speech was

found to be significantly different for fifth-grade children; that is, the higher SES group was superior to the lower SES group and the Black children were less accurate than the White children in replacing the deleted words from the teacher's speech. With respect to the first graders, the higher SES group was superior to the lower SES group, but there were no differences between the Black and White children. In reference to the comprehension of the peer-group speech, significant SES differences were found but no race differences were obtained. The major difference was that lower SES group, while doing as well as the SES group with the passages of lower-class and Black children's speech, did not perform as well when the passages were derived from the higher SES and White children. While there was no significant main effect for Race, there were several significant interactional effects involving race. There were significant Race by Paragraph Race and Race by Paragraph Sex interactions. That is, paragraphs devised by children of a particular race were better understood by peers of the same race. Black children did as well as White children on passages spoken or written by Blacks, but obtained lower scores on passages by Whites. The significance of dialect as a factor in Black-White communication makes this study relevant to the present investigation. However, the use of the Cloze procedure is not an adequate technique for investigating communication. For example, reading ability and grammatical knowledge become important factors and must be controlled.

Gantt, Wilson and Dayton (1974-1975) were interested in investigating the relationship between syntax and listening; more specifically, these investigators' purpose was to determine: (a) the relationships among measures of oral language production and measures of listening skills in Black children, (b) the differences in listening skills of Black children from lower socioeconomic backgrounds and those from middle class neighborhoods, (c) the relative effects of language production as a function of type of tester (Black adult, White adult or Black peer) and (d) the differences in use of specific categories of Standard and Black English on the language production measures as a function of SES and type of tester. Black children who served as subjects were selected from two public schools in Washington, D.C. One school, designated Title I, meant that a high concentration of the children were from poverty level families; the Non-Title I school was located in a lower middle class neighborhood. Forty-eight third-grade children were randomly selected from each school and were given interviews to obtain language samples by the Black adult, the White adult and a sixth-grade child, who was pre-trained for interviewing techniques. Each child subject was asked to tell a story about a picture depicting a boy and girl in an urban setting looking at several bags of scattered groceries lying in the street. These language samples were recorded, transcribed, and analyzed for Standard and Black English syntactical characteristics. The listening scores were obtained by administering the Word and Sentence Listening Sections of the Durrell Reading Series, Form D. Gantt et al. found significant dif-

ferences between the listening skills performance of the Title I and Non-Title I schools, favoring the Non-Title I school. With respect to differences in language production measures as a function of type of school or type of tester, the investigators noted the Non-Title I school students produced significantly more Standard English than the Title I school students. There were no significant differences between schools in the production of Black English, but the Black adult tester elicited more Black English from the subjects than did the White adult or the Black peer tester. In reference to differences in the use of specific Standard and Black English features on the language production measures as a function of type of school or type of tester, certain significant differences were found. The Non-Title I school subjects used the copula at a significantly higher rate than did the Title I school subjects. On the other hand, Title I subjects used the Black English negatives and past tense markers significantly more often than did subjects in the Non-Title I school. Another interesting finding was that the Black adult and Black peer tester elicited significantly more Black English past markers than did the White adult tester.

In reference to communication, this study did examine both language production and listening. However, the language was produced in isolation and listening skills were determined by administering a reading test. Therefore, no substantial conclusion can be made concerning the children's ability to communicate, that is, to present a message that

is conveyed and received by a listener.

Several studies have been concerned with children's ability to imitate or recall verbal messages in either Standard English or Black English. Weener (1969) found that when low SES children are presented with messages from adult speakers of their own dialect and from middle-class adult speakers, there were no significant differences in their ability to recall the respective sentences. However, the performance of middle SES children was sharply reduced by hearing messages presented by a speaker of a different dialect. This striking finding was explained by suggesting that lower SES children are exposed to two dialects, their own and Standard English in school, and as a result develop bidialectal comprehension skills, but can produce (speak) only their own dialect.

Hall, Reder and Cole (1975) were interested in the effect of dialect differences when children must retain and then reproduce a substantial body of meaningful material; consequently, a story recall task was presented to 16 young Black children in a Head Start program in Harlem and 16 White children who attended a nursery school in lower Manhattan in order to study the relationship between dialect usage and cognitive performance. The race of the experimenter was varied, also, to explore the race by dialect effect. The children were presented with four stories, two in each dialect, Standard English or Black English, by a White and Black experimenter, respectively. After hearing the story, the subjects were asked to retell the story; then

several questions designed to probe recall were presented in the appropriate dialect. Hall et al. found no main effects for racial group or dialect, but there was a significant Racial Group X Dialect interaction. The Black subjects performed better in Black English and the White group performed better in Standard English. The scores of Blacks tested in Black English were equivalent to Whites tested in Standard English. Analysis of the dialect of output revealed that Black children spoke predominantly a mixed dialect and Black English, whereas the White children spoke exclusively Standard English. There was no effect of experimenter on the dialect used; Black children spoke a mixed dialect 80% of the time, and White children spoke in Standard English 93% of the time. The mixed dialect spoken by the Black children supports the conclusion of Weener (1969) that Black children are bidialectal but contrasts with Baratz's (1969) statement that Black children are not bidialectal, and their Black English interferes with their ability to learn Standard English. Hall, Turner and Russell (1973) also found no evidence to support the hypothesis that Black dialect interferes with Standard English comprehension.

Tests of Black English

Baratz (1969) devised a sentence repetition test in order to compare the language behavior of Standard and Black English speakers. The test consists of 30 sentences, 15 in Standard English and 15 in Black English (Appendices A₁ and A₂). Several investigators have used this material

in their studies of language differences between Black and White speakers (Hall and Freedle, 1973) while others have used the principles delineated by Baratz (1969) and constructed their own material (Gay and Tweney, 1976; Hall, Reder and Cole, 1975; Hall, Turner and Russell, 1973).

Recently, Lewnau (1979) constructed a battery of tests to determine the primary linguistic orientation of children who have been exposed to both Standard English and Black English. This Test of Dialect Dominance consists of three principal subtests. In addition, there is a guide to assess Standard English Articulation. The subtests are: Sentence Imitation: Black English and Standard English; Sentence Production; and Grammatical Comprehension. The Sentence Imitation and Sentence Production subtests measure the child's expressive ability whereas the Grammatical Comprehension gauges the child's ability to comprehend contrastive linguistic features of Black English and Standard English.

The Sentence Imitation task consists of 20 corresponding sentences in Black and Standard English. The grammatical structures include subject-verb agreement-third person singular, present tense; noun pluralization; past tense inflection; possessive inflection; and future marker "will." The structures were chosen because they provide contrastive elements in the two dialects.

The Sentence Production task involves presenting the subjects with a set of twelve pictures designed to elicit specific linguistic features. The grammatical structures

under investigation are the same as those in the Sentence Imitation test; however, the Sentence Production test requires self-generated utterances which are more informative to a communicative context.

The Grammatical Comprehension task consists of 34 sets of pictures, with three pictures per page. The child is asked to point to a picture which matches the sentence produced by the examiner. Each sentence contains a target language feature which can be contrasted in the two dialects, but all sentences are presented in Standard English and the child is required to make no verbal response. Performance on the test involves the child's ability to discriminate among three pictures on the basis of his understanding of Standard English grammatical structures which are encoded differently in Black English. One particular group of pictures involves (a) a woman holding a cat in her arms, (b) a cat and a kitten, and (c) two cats. The sentence is, "This is a mother cat," and the target feature is the possessive-adjective distinction. Lewnau postulates that semantic relations, assessed in the Grammatical Comprehension task, occur in both dialects but are realized through different surface structure, thereby coding different meanings in each dialect. For example, the phrase, mother cat in Standard English refers to a cat who is a mother, whereas in Black English, since there is no rule requiring inflection of the noun for possession, the phrase in Black English can mean either the cat who is a mother or the cat that belongs

to the mother, mother's cat in Standard English.

The Test of Dialect Dominance appears to have a promising future in research with dialectal performance. As this test is new, there are very little data to evaluate its reliability and general performance as a research instrument. With the comprehensive nature of this test one can determine the expressive dialect dominance, receptive competence in Standard English and bidialectalism of the children tested. These factors will definitely become important effects in future research studies which examine dialect as an independent variable.

From the above discussion and review of relevant research, one can see the need to integrate the study of communicative effectiveness with the study of language, specifically, dialect differences. The language variables in communication need to be explored in conjunction with the informative quality of messages expressed in dialect. The purpose of this study is to explore race and dialect variables as they relate to communicative ones, such as the speaker and listener.

Chapter III

Rationale and Hypotheses

Many studies have examined issues related to communication skills in young children. Other investigators have explored and delineated linguistic features of young children's speech. This study integrates research in communication and studies of dialect. The problem of this investigation involves determining if race and dialect influence communicative competence. The relationship among race, dialect and phenomena that are closely associated with dialect and race will be explored. Do race and dialect affect the decoding accuracy of communicative statements in general, or do these factors become significant only with stimuli that are culture-specific? Culture-specific stimuli refer to activities that are associated with one's subculture.

Moreover, several theoretical and empirical issues concerning race, dialect and communication accuracy will be clarified. A theoretical model has been proposed to account for referential communication in general and communicative interaction within and across race specifically (Figure 1). Within this model, several variables with distinct attributes determine communication accuracy (Mehrabian and Reed, 1968). In the present investigation, the following variables will be studied: speaker and listener factors affecting communication accuracy, subculture (race) and coding rules (dialect); and referent (stimuli Intrinsic to Ghetto versus stimuli Extrinsic

to Ghetto culture). Empirically, for the first time, stimuli that are related to the cultural frame of reference of the children being investigated are examined within the paradigm of communicative interaction. In addition, the dependent measures will include response time as well as the conventional non-verbal measure, pointing to the target referent. The length of time required to decode messages in different dialects has not been explored in research on communication and dialect.

The need for this study is also apparent as there are controversial issues concerning the presence and use of Black English in the "inner city" schools of major metropolitan areas. This study will provide empirical data concerning the use of Black English, and this information can be used to formulate policy on this issue.

Hypothesis I

Decoding within dialect will be more effective than decoding across dialect. Black English speakers will decode messages in Black English more effectively than in Standard English. Standard English speakers will decode Standard English more effectively than they do Black English. Effectiveness is determined by the greater number of correct responses and lesser amount of time in seconds to respond to stimuli.

Hypothesis II

Decoding within race will be more effective than decoding across race. Black subjects will decode more effectively when the photograph of the speaker is Black, and White subjects will

decode better when the photograph of the speaker is White.

Hypothesis III

Black English speakers will decode Black English messages as effectively as White and Black Standard English speakers decode Standard English messages.

Hypothesis IV

White Standard English speakers will decode Black English messages as effectively as Black Standard English speakers decode Black English messages. Dialect differences impede communication more than race differences do.

Hypothesis V

Black English speakers will decode more effectively messages about Intrinsic to Ghetto Culture (IGC) photographs than messages about Extrinsic to Ghetto Culture (EGC) photographs.

Hypothesis VI

White Standard English speakers will decode messages more effectively about Extrinsic to Ghetto Culture (EGC) photographs than messages about Intrinsic to Ghetto Culture (IGC) photographs.

Hypothesis VII

Black Standard English speakers will decode Intrinsic to Ghetto Culture (IGC) photographs as effectively as they decode Extrinsic to Ghetto Culture (EGC) photographs.

Chapter IV

Method

Subjects

The subjects were one hundred-twenty (120) eight to ten-year-old children in the New York City public schools. There were 28 eight-year-olds, 53 nine-year-olds, and 39 ten-year-olds. Eighty children were Black and forty were White. There were fifty-five (55) boys and sixty-five (65) girls. Forty of the Black children were speakers of Black English and forty were speakers of Standard English. The White subjects were all speakers of Standard English. The Black children attended a public school in Brooklyn, New York and the White children attended a public school in Queens, New York. The New York City Board of Education's "Tenth Annual Ranking of Schools by Reading Achievement" (December, 1979) listed the Brooklyn school as having 41.4% of the children reading at or above the national standardized reading grade level, and the Queens school as having 43.1%.

Materials

Sentence Repetition Test

The screening test material consisted of the Sentence Repetition Test (Baratz, 1969) which was revised in order to adjust for locality and time. The original form was constructed ten (10) years ago for use in the Baltimore, Maryland area. This test has a total of thirty (30) sentences, fifteen (15) in Black English and fifteen (15) in Standard English. For a

Black English sentence, the content is also expressed in Standard English (See Appendices A₁ and A₂). This Sentence Repetition Test has both phonological and syntactical features of Black English such as pronunciations of the initial, medial and final /th/ sound; repetition of the subject pronoun, lack of verb markers, and double negative.

Stimuli - Arrays

The primary stimuli consisted of photographs that were taken from popular magazines such as Ebony, Time, and Smithsonian. The content of these photographs included persons engaging in activities of work, play, sports and entertainment. Half of the pictures selected were related directly to the Black culture while the other half involved depictions of the mainstream culture. Activities that were portrayed in one culture were counterbalanced by similar activities in the other culture. All pictures were grouped into arrays with three (3) pictures in each. One set of the photographs relating to Black culture included children sitting on the steps of apartment buildings. The counter balanced, mainstream culture set was various families sitting on steps of their houses. One photograph of the array served as the referent object while the other two were designated as non-referents.

The photographs relating to Black culture were designated the Intrinsic to Ghetto Culture (IGC) category while those photographs relating to the mainstream culture were assigned to the Extrinsic to Ghetto Culture (EGC) category. There were ten arrays of photographs for each of the two categories.

The designation of these photographs as Intrinsic to Ghetto Culture versus Extrinsic to Ghetto Culture was determined by the following procedure. Eight adult college evening students, who attended Medgar Evers College and who resided in the vicinity of the Brooklyn school that was used in the study, were asked to rate the photographs as being related or non-related to the ghetto. The specific instructions were "Indicate whether each photograph is related to the ghetto or not. Write the number which is on the back of the photograph in its respective column, RG (Related to Ghetto) or NRG (Not Related to Ghetto)." There were actually eighty-four individual photographs presented, twenty-eight arrays. The highest consensual ratings for the best ten arrays from each category, Intrinsic to Ghetto Culture and Extrinsic to Ghetto Culture, were selected for the study (See Appendix B). Of the 60 photographs used, 31 received 100% agreement, 18 received 87.5% agreement, and 11 received 75% agreement.

Picture of the Speaker

Photographs of a young Black woman and a young White woman served as the Race of the Speaker. These 8" X 10" photographs were in color and were presented in metal frames.

Messages

For each array, a message was constructed and recorded on cassette taperecorder in both Standard English and Black English (See Apendices C₁ and C₂). These encodings were approximately the same length in both Standard English and Black English.

and represented the natural forms of expressions in both dialects. Three children, speakers of Black dialect, were asked to make a statement about the target picture of each array and the responses were recorded. These Black English responses were edited by an adult "expert," female Black English speaker, one who has done considerable research in Black dialect. The Black English messages were also recorded on tape for presentation by this individual. The Standard English messages were obtained by asking two Standard English-speaking children, one 8 years old and the other 9 years old, to make a statement about the referent photographs. These messages were also edited to be consistent with the Black English messages.

In one array, the message was, "The family members are sitting on the steps of their house." If a child added "with their dog," the phrase was eliminated because, even though there was a dog in the picture, this information was not needed since there was only one family sitting on the steps of their house. A female English instructor recorded the Standard English messages for subsequent presentation to the subjects.

Procedure

Screening Test

One hundred-five (105) Black children between the ages of eight and ten years old were given the revised Sentence Repetition Test which assessed their abilities in both Standard and Black English. This test was presented on tape to the subjects who were asked to repeat each sentence after hearing it twice. These instructions were given: "With this tape-

recorder, I am going to play some sentences. I want you to listen carefully. After you have heard each sentence two times, please repeat it. I will turn on this other tape-recorder so that we can record your sentences. Do you understand? Please listen." In addition to the preceding instructions, when the tape began, the subjects heard, "Please repeat each sentence after you have heard it two times." The randomized order of the sentences of the revised Sentence Repetition Test as they appeared on the recorded tape are listed in Appendix D.

The children's responses were recorded on tape. The protocols were analyzed by examining what happened to the critical Standard English Structures--third person singular, presence of copula, treatment of negation, past tense markers, possessive and plural markers. In addition, the Black English critical structures were examined--non-addition of the "s" in the third person, zero copula, double negation and ain't, zero past marker, zero possessive marker, and the use of "be." A sample data sheet used to score the Sentence Repetition Test is represented in Appendix E.

Children who correctly repeated at least twelve of the Standard English sentences were designated speakers of Standard English and those who correctly repeated in Black English twelve of the Black English sentences were considered speakers of Black English. Children who successfully repeated twelve sentences correctly in both Standard English and Black English were categorized bidialectal and, therefore, were not used in

the treatment phase of the study. Moreover, evidence of translation behavior provided additional information which aided the assignment of subject to their respective language category. Translation behavior refers to the tendency of a dialect speaker to repeat in his own dialect a stimulus sentence which was presented in a different dialect. For example, the Standard English sentence, "She was the girl who didn't go to school because she had no clothes to wear," is translated to, "She was the girl dat didn't go to school 'cause she ain't got no clothes to wear," by a Black English speaker. From the Sentence Repetition Test given at the Brooklyn school to Black subjects, 45 subjects were assigned to the Black English speakers group and 51 were assigned to the Standard English group. There were nine bidialectal children. However, only 40 children from each group were used in the second phase of the study.

At the Queens school 50 White children who were non-Hispanic and non-recent immigrants were given the Sentence Repetition Test. There were 2 children categorized as bidialectal. The remaining 48 were speakers of Standard English, exclusively, and 40 of these children were selected for the treatment phase of the study.

The protocols of the Sentence Repetition Test were scored individually by the Experimenter and a college instructor of English as a Second Dialect. Each sentence of each protocol was classified as either a statement of Black English or Standard English, depending upon the number of

critical features of the respective dialect. After examining each sentence, a score was given for the number of sentences that were repeated in Standard English and in Black English. The greater number of sentences repeated in the dialect determined the classification of the protocol. There was approximately 94% agreement for the 155 examined protocols.

Experimental Phase

The subjects were taken individually to the experimental area which was an isolated classroom. The room was arranged in the following manner. There was a small table with the tape-cassette recorder, the photograph of the speaker, and the arrays of the IGC (Intrinsic to Ghetto Culture) and EGC (Extrinsic to Ghetto Culture) photographs on it. Chairs for the subject decoder and the experimenter were placed near the middle of the table. At one end of the table an assistant to the experimenter sat and recorded the response time with a stop watch.

After the subject had taken his seat, these instructions were given:

Today we are going to see some pictures and you will hear some sentences about them. The tape-recorder and this photograph (the photograph of the speaker was pointed to by the experimenter) will serve as the speaker. You are going to be the listener. You will hear messages on the tape recorder that will ask you to select a picture from a group of three. After you have heard the message, point to the correct picture and say, "This one." I will give you another set of pictures until they are all completed. I want you to do your best and I'll give you a gift when you are finished. Do you understand?

The experimenter controlled the tape recorder and re-

corded the correctness or incorrectness of the response by making a check (✓) or check and a minus sign (✓-) on the score sheet. The time in seconds, measured by counting the number of seconds that lapsed between the ending word of the message and the response by the subject, was determined by the assistant with the use of a stop watch and recorded adjacent to the score for the response by the experimenter. The subject was asked to turn over the next array which was face-down on the table in front of him. As he looked at the array, the message about the referent photograph was presented. Five of the ten IGC stimuli sets were presented, followed by five of the EGC, then five additional IGC. The final EGC arrays concluded the presentation of the stimulus material. After the completion of the experimental task, the subject was escorted back to his classroom, thanked and given his gift which was candies.

Experimental Groups

There were twelve different groups of ten subjects each; six groups were presented the messages with the Black photograph of the speaker and six with the White photograph of the speaker. Six groups were given Black English messages and six Standard English messages. Figure 2 lists the experimental groups.

Scoring

Each subject received a total score (0-20), intrinsic score (0-10), and an extrinsic score (0-10). Total response times in seconds for the intrinsic and extrinsic categories were also determined.

<u>Race-Dialect of Listener</u>	<u>Race-Dialect of Speaker</u>			
	Black		White	
	BE	SE	BE	SE
Black(B)-Black English(BE)	BBE-BBE	BBE-BSE	BBE-WBE	BBE-WSE
Black-Standard English(SE)	BSE-BBE	BSE-BSE	BSE-WBE	BSE-WSE
White(W)-Standard English	WSF-BBE	WSE-BSE	WSE-WBE	WSE-WSE

Figure 2
 Chart of Experimental Groups

Chapter V

Results

The data were analyzed by analysis of variance (ANOVA). There were six independent variables: Race of Listener, Dialect of Listener, Sex of Listener, Race of Speaker-Photograph, Dialect of Speaker-Message and Type of Stimuli. The statistical design was a 3(Race and Dialect of Listener) X 2(Sex of Listener) X 2(Race of Speaker-Photograph) X 2(Dialect of Speaker-Message) X 2(Type of Stimuli) repeated measures model. The Dialect of the Listener factor was nested within the Black race children. There were five between-subject factors and one within-subject factor (Type of Stimuli). The dependent measures were accuracy of choice for both Intrinsic to Ghetto and Extrinsic to Ghetto stimuli and length of responding time for each of the above categories. In addition, t tests, F tests, and post hoc tests were conducted as follow-up procedures as well as to answer questions raised in the hypotheses.

Accuracy in Choice of Pictures

The significant results of the analysis of variance for the choice of pictures are listed in Table 1. The classifying variables are: Race-Dialect of Listener (R-D), Race of Speaker-Photograph (P), Dialect of Speaker-Message (M), Sex of Listener (Sex), and Stimuli (S)--Intrinsic to Ghetto Culture (IGC) and Extrinsic to Ghetto Culture (EGC).

There was a significant main effect for the Dialect of

Table 1
 Significant F Test Results for the Accuracy in
 Choice of Pictures Measure

<u>Source</u>	<u>df</u>	<u>MS</u>	<u>F</u>
Dialect of Speaker-Message(M)	1	30.95	22.59***
Race-Dialect of Listener (R-D) X M	2	7.62	5.72**
R-D X M X Race of Speaker- Photograph(P)	2	4.15	3.12*
R-D X M X P X Stimuli	2	3.11	3.38*

* $p < .05$

** $p < .01$

*** $p < .001$

Speaker-Message(M) variable, and there were three significant interactions, a two-way, a three-way and a four-way. Regarding the main effect for Dialect of Speaker-Message, the mean for the children who decoded Standard English messages was 17.8 whereas the mean for the children who decoded Black English was 16.3. Thus, the children as a whole could understand the Standard English messages significantly better than the Black English messages.

The two-way interaction involved the Race-Dialect of Listener (R-D) X Dialect of Speaker-Message (M) factors. That is, the race and dialect of the child interacted with the dialect of the recorded message which was presented in either Black English (BE) or Standard English(SE). Table 2 presents the means of the two-way R-D X M interaction for each experimental group. For each experimental group, the higher decoding score was attained with the Standard English messages. Post hoc analyses using the Duncan's Multiple Range Test revealed several significant findings. The Black English-dominant group of Black youngsters decoded Standard English messages more accurately than Black English messages although this difference did not attain statistical significance. The Standard English-dominant group of Black children showed virtually equal proficiency in decoding Black or Standard English messages. The White group of youngsters were significantly more accurate in decoding Standard English messages than Black English ones ($p < .05$).

There was a three-way interaction among the Race-Dialect

Table 2
Means for the Race-Dialect of Listener
X Dialect of Speaker-Message
Interaction

<u>Race-Dialect of Listener</u>	<u>Dialect of Speaker-Message</u>			
	<u>Standard English</u>		<u>Black English</u>	
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
Black-Black English	17.6	1.1	16.1	1.2
Black-Standard English	17.8	.95	17.3	1.4
White-Standard English	18.3	.88	15.6	1.1

of Listener (R-D) X Race of Speaker-Photograph (P) X Dialect of Speaker-Message (M) factors. Table 3 lists the means of this interaction. Post hoc tests revealed that Black English dominant youngsters displayed significantly ($p < .05$) more decoding ability with Standard English messages while viewing a photograph of a White speaker than with Black English messages when viewing the same photograph. No differences of significance emerged when these youngsters decoded Black or Standard English messages while viewing a Black speaker photograph. The decoding of messages by the Standard English-dominant group of Black youngsters for Black English messages with a White speaker photograph was significantly ($p < .05$) lower than their decoding of Standard English messages with the White speaker photograph or the Black speaker photograph. In addition, for this group the decoding of Black English messages while viewing the Black speaker photograph was significantly higher ($p < .05$) than the decoding of these same messages while viewing the White speaker photograph. White children, however, showed significantly lower comprehension of Black English messages, particularly when the photograph presented was a Black speaker (both $ps < .05$).

The significant four-way interaction involved the R-D X M X P X Stimuli factors. Table 4 presents the means for the Intrinsic to Ghetto Culture (IGC) and Extrinsic to Ghetto Culture (EGC) scores for this interactional effect. Consistently, the White Standard English speakers scored relatively higher with Standard English than Black English messages re-

Table 3

Means for the Race-Dialect of Listener X Race of Speaker-Photograph
X Dialect of Speaker-Message Interaction

<u>Race-Dialect of Listener</u>	<u>Race of Speaker-Photograph</u>							
	White				Black			
	<u>Dialect of Speaker-Message</u>							
	SE		BE		SE		BE	
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
Black-Black English(BE)	18.0	1.4	16.0	1.7	16.4	1.8	16.2	2.7
Black-Standard English(SE)	17.9	1.7	16.7	1.6	17.8	1.6	17.8	2.4
White-Standard English	18.0	1.8	16.2	1.8	18.5	1.8	14.9	2.3

Table 4

Means for the Interaction of the Race-Dialect of Listener X Dialect of Speaker-Message
 X Race of Speaker-Photograph Factors on Stimuli

--Intrinsic to Ghetto Culture (IGC)

and Extrinsic to Ghetto

Culture (EGC)

<u>Race-Dialect of Listener</u>	<u>Dialect of Speaker-Message</u>	<u>Race of Speaker-Photograph</u>							
		Black				White			
		<u>Type of Stimuli</u>							
		IGC		EGC		IGC		EGC	
		M	SD	M	SD	M	SD	M	SD
Black-Black English(BE)	BE	8.3	1.4	7.6	1.3	8.2	.88	7.9	.88
	SE	8.3	.97	8.0	1.4	9.0	1.0	8.8	.88
Black-Standard English(SE)	BE	9.2	.92	8.6	1.4	7.8	1.6	8.9	1.0
	SE	8.8	.97	8.8	.87	8.9	.94	8.8	1.1
White-Standard English	BE	7.3	1.4	7.4	.97	8.8	.83	7.5	.97
	SE	9.4	.97	9.2	.88	9.1	1.1	9.0	.67

ardless of the race of photograph or type of stimuli. However, a score of 8.8 was achieved with the IGC stimuli and the White photograph. Of interest, also were the high 9.0 IGC score attained by the Black English-dominant speakers with Standard English and the White photograph, and the low 7.6 EGC score attained with Black English and the Black photograph. With the Black Standard English-dominant speakers, their scores were rather uniform throughout, with the exception of the 9.2 IGC score for Black English and the Black photograph compared to the 7.8 IGC score for Black English and the White photograph. Post hoc tests revealed that none of these means were significantly different at a level of significance set at $p < .05$.

There was no Sex, Race-Dialect group or Race of Speaker-Photograph main effect for the picture selection task.

Response Time

The analysis of variance for the response time factor produced two main effects: Race-Dialect and Stimuli. There were also two two-way interactions: The Dialect of Speaker-Message X Stimuli and the Race-Dialect X Stimuli. Table 5 lists the F tests for these significant results. With regard to the main effect for the Race-Dialect of the Listener, post hoc tests revealed that Black youngsters who were Black English-dominant ($M = 82.6$ seconds) required significantly

Table 5
Significant F Test Results for the
Response Time Measure

<u>Source</u>	<u>df</u>	<u>MS</u>	<u>F</u>
Race-Dialect of Listener(R-D)	2	3556.05	8.91***
Type of Stimuli(S)	1	253.95	7.26**
R-D X S	2	108.94	3.12*
Dialect of Speaker-Message(M) X S	1	237.81	6.80*

*p < .05

**p < .01

***p < .001

more time than either Black ($\underline{M} = 62$ seconds) or White ($\underline{M} = 60.3$ seconds) youngsters who were Standard English speakers (both $p < .01$). The latter two groups did not differ significantly.

The main effect for stimuli was created by the children's significantly greater reaction time to stimuli that were intrinsic to the ghetto ($\underline{M} = 35.3$ seconds) than stimuli which were extrinsic to it ($\underline{M} = 33$ seconds).

The cell means involved in the interaction between the Race-Dialect of the Listener and the Type of Stimuli are presented in Table 6. The Black English-dominant group of Black youngsters showed virtually equivalent response times when responding to stimuli which were intrinsic or extrinsic to the ghetto. Likewise, Standard English-dominant Black children showed virtually equivalent response times to stimuli which were intrinsic or extrinsic to the ghetto. The White group of youngsters showed significantly ($p < .05$) longer response times to ghetto-related stimuli compared to non-ghetto pictures.

The interaction of Dialect of Speaker-Message and Stimuli is presented in Table 7. Standard English messages were responded to equally quickly whether the stimuli were intrinsic or extrinsic to the ghetto. However, messages presented in Black English that referred to the ghetto culture required substantially longer response times than messages which referred to mainstream culture. This difference was statistically significant, $p < .05$.

There were no Sex, Race of Speaker-Photograph or Dialect

Table 6
 Mean Number of Seconds (M) Required by Each
 Race-Dialect Group to Respond to Intrinsic
 to Ghetto (IGC) and Extrinsic to
 Ghetto (EGC) Stimuli

<u>Race-Dialect of Listener</u>	<u>Type of Stimuli</u>	
	IGC	EGC
Black-Black English	$\frac{M}{41.4}$	$\frac{M}{41.2}$
Black-Standard English	31.9	30.1
White-Standard English	32.5	27.8

Table 7
 Mean Response Time in Seconds for
 the Dialect of Speaker-Message
 X Stimuli Interaction

<u>Dialect of Speaker-Message</u>	<u>Type of Stimuli</u>	
	Intrinsic to Ghetto Culture	Extrinsic to Ghetto Culture
Standard English	31.7	31.7
Black English	39.2	34.9

of Speaker-Message main effects for the response time measure.

Analyses Based on Hypotheses

The preceding analyses represented a summary of the significant findings. In the following section, the specific hypotheses will be tested. In cases where the general results bear directly on the hypothesis, these results will be recalled. In cases where the general testing procedures did not relate to the specific hypothesis, a priori contrasts will be performed, using t tests and F tests (Winer, 1971). Such tests are usually more powerful than post hoc tests.

Hypothesis I stated that decoding within dialect would be more effective than decoding across dialect. More specifically, Black English speakers were expected to decode messages in Black English more effectively than in Standard English. Standard English speakers were expected to decode Standard English more effectively than they did Black English. This hypothesis was only partially confirmed. Post hoc tests on the dependent variable of number of correct responses indicated that while Black English speakers did not decode more effectively when the message was presented in Black English, Standard English speakers did decode messages more effectively in Standard English than in Black English.

Table 8 lists the means of these within- and across-dialect decoding comparisons. The Black English group actually achieved a higher score with Standard English than with Black English. However, this difference was not statistically significant at the $p < .05$ level of confidence. On the other hand, the Standard English group did decode more effectively

Table 8
 Means for Within-Dialect and Across-Dialect Decoding
 for Black English(BE) and Standard
 English(SE) Listeners

<u>Dialect of Speaker-Message</u>	<u>Dialect of Listener</u>	
	SE	BE
Standard English	18.0	16.4
Black English	17.3	16.2

in Standard English than in Black English ($p < .05$).

In reference to the response time, this hypothesis was not confirmed (see Table 9). The Standard English speakers used more time to decode Black English messages than Standard English messages; however, this difference was not significant. The Black English speakers required more time for within-dialect decoding than across-dialect decoding ($p < .01$). This difference, however, did not support Hypothesis I since the Black English group's decoding was more effective across dialect rather than within dialect.

Hypothesis II stated that decoding within race would be more effective than decoding across race. Black subjects were expected to decode more effectively when the Race of the Speaker-Photograph was Black, and White subjects were expected to decode significantly better when the Race of the Speaker-Photograph was White. Since this hypothesis suggested a Race of Listener X Race of Speaker-Photograph interaction and the R-D factor included both dialect and race, analyses were conducted to separate these two factors. That is, a two-way analysis of variance, repeated measures design, for both the correct response and time measures was examined to test this predicted interaction. The (2) Race of Listener X (2) Race of Speaker-Photograph was not significant for either the number of correct response pictures task or the time measure. The cell mean for these groups' decoding accuracy are presented in Table 10. None of these cell means differed significantly. For the time measure, the means are presented in Table 11. None of

Table 9
 Mean Number of Seconds for Within-Dialect and Across-
 Dialect Response Time for Black
 English(BE) and Standard
 English(SE) Listeners

<u>Dialect of Speaker-Message</u>	<u>Dialect of Listener</u>	
	SE	BE
Standard English	58.2	69.1
Black English	64.1	95.4

Table 10
Means for Within-Race and Across-Race Decoding
for Black and White Listeners

<u>Race of Listener</u>	<u>Race of Speaker-Photograph</u>	
	Black	White
Black	17.1	16.5
White	16.7	17.1

Table 11
 Mean Number of Seconds for Within-Race and
 Across-Race Response Time for
 Black and White Listeners

<u>Race of Listener</u>	<u>Race of Speaker-Photograph</u>	
	Black	White
Black	71.8	72.8
White	61.4	59.1

these within race differences in response time were significant at the $p < .05$ level of confidence. Thus Hypothesis II was not confirmed.

Hypothesis III predicted that within-dialect decodings would be equal to each other. Black English speakers were expected to decode Black English messages as effectively as White and Black Standard English speakers decoded Standard English messages. Hypothesis III is not supported by the data since post hoc comparisons showed that there was a significant difference ($p < .01$) between the Black English speaker group's decoding of messages in Black English and Standard English speakers' decoding of messages in Standard English (see Table 8). Moreover, the Black English speakers required a significantly ($p < .001$) greater amount of time to respond to the messages in their own dialect than the Standard English speakers needed to respond to Standard English (Table 9).

Hypothesis IV predicted that there were no over-all differences in the decoding effectiveness of Black English messages by Black Standard English speakers and White Standard English speakers since dialect differences impede communication more than race differences do. The mean of the Black Standard English dominant children for messages presented in Black English was 17.3 and the mean for the White Standard English children for messages presented in Black English was 15.6. This difference was significant, $t(38) = 2.88$, $p < .01$. In reference to response time, there was no significant difference between the Black Standard English-dominant group (mean of 65.6 seconds)

compared to the White Standard English group (mean of 63.1 seconds). Therefore, Hypothesis IV was not supported by the choice of pictures measure but was confirmed by the response time measure.

In Hypothesis V, the prediction was that Black English speakers would decode more effectively messages about Intrinsic to Ghetto Culture (IGC) photographs than messages about Extrinsic to Ghetto Culture (EGC) photographs. This hypothesis was not supported for either the decoding accuracy or the response time measure. For the choice of pictures measure, the Black English speakers obtained means of 8.5 and 8.1, respectively, for the IGC and EGC stimuli. In reference to the time measure, this group required 41.4 seconds for the IGC stimuli and 41.2 seconds for the EGC stimuli. Neither difference attained statistical significance.

Hypothesis VI predicted that White Standard English speakers would decode messages about EGC photographs more effectively than messages about IGC photographs. The White Standard English group achieved means of 8.7 for the IGC stimuli and 8.3 for the EGC stimuli. These means were not statistically different. For the time measure, the White Standard English group obtained means of 32.5 seconds for the IGC stimuli and 27.8 seconds for the EGC stimuli. These means were significantly different ($p < .05$). Therefore, Hypothesis VI was confirmed for the results of the time measure, but was not supported by the correct choice of pictures data.

The final hypothesis, Hypothesis VII, stated that Black

Standard English speakers would decode messages about IGC photographs as effectively as messages about EGC photographs. Hypothesis VII was supported. The IGC and EGC means for the Black Standard English group were 8.7 and 8.9, respectively. This difference was not statistically significant ($p > .05$). In addition, the mean time for the Black Standard English speakers to respond to the IGC and EGC stimuli was 31.9 seconds and 30.1 seconds, respectively. These means also were not statistically different ($p > .05$).

Chapter VI

Discussion

The present study examined the effects of race and dialect in referential communication. Specifically, Black and White children between the ages of eight to ten years old, some speakers of Black English and some speakers of Standard English, decoded tape-recorded messages about stimuli that were familiar or unfamiliar to their cultural backgrounds. After being assigned according to their respective language category, based on a dialectal pretest, these children were presented with arrays of photographs that were related to ghetto culture or to the mainstream culture and heard a message in Black English or Standard English. The children's task was to identify the referent or target photograph based on the message presented. Two measures were taken from the children's performances: accuracy of response and number of seconds required for the response.

The results of this investigation showed that sex was not a factor in communicative effectiveness, race differences minimally affected communication accuracy, and dialect differences did, in fact, significantly influence decoding accuracy. In addition, the amount of time needed to process information from different dialects also varied as a result of one's linguistic orientation.

Race

The role of race in the decoding of messages was explored

by examining the effects of the race of the listener and the race of the speaker. The race of the speaker variable was manipulated by presenting a Black or White photograph concomitantly with the voices of the tape-recorded messages. Contrary to Hypothesis II, Black and White children did not differ in their ability to decode messages, based on the Race of the Speaker-Photograph. Therefore, within-race decoding was not more effective than across-race decoding as was predicted. These findings are consistent with the findings reported by Heider (1971) and Quay et al. (1977). Likewise Krauss and Rotter (1968) concluded that within-race communication was not more effective than across-race communication.

The only race difference which reached statistical significance in the present study involved response time. White children displayed a shorter response time than Black children. This finding is similar to that reported by Baldwin et al. (1971) with a different type of communication task. Baldwin et al. (1971) found that White children were more accurate and more efficient than Black children on a task that involved describing the critical attributes of a target figure so that it could be distinguished from the non-referents. In sum, the present results parallel those of the previous studies regarding a lack of listener racial differences related to a speaker's race in accuracy of decoding communications; however, the White children listeners' response time was significantly faster than the Black children's. A possible explanation for the latter finding is that White children are acculturated to

respond immediately to linguistic stimuli, whereas Black children are not oriented to respond to linguistic stimuli with urgency. Interviews with Black children from urban ghetto areas of New York City resulted in response latencies of 6 to 20 seconds in answering uncomplicated statements (Labov, 1972). No data for response latencies of White children were available.

While there were no main effects for Race of the Listener nor Race of the Speaker-Photograph on the accuracy measure, there were two interactions involving the Race of the Speaker-Photograph variable. The Race of the Speaker-Photograph interacted with the Dialect of the Speaker-Message and the Race-Dialect of the Listener. The children responded differentially when they heard a Standard or Black English message and were presented with a photograph of a Black or White speaker. White listeners were particularly handicapped when hearing Black English messages and seeing the photograph of the Black speaker. There was a significant Racial Group X Dialect interaction. Both Black children and White children performed better in Standard English although this difference only reached statistical significance for the White youngsters.

With reference to the response time measure, which is another index of communicative effectiveness, the Race of the Listener variable was significant but the main effect for the Race of the Speaker-Photograph was not. In addition, there was a Race of Listener X Stimuli interaction. The faster response time by the White children is perhaps indicative of a certain sensitivity that they possess with reference to the respond-

ing to linguistic stimuli. On the other hand, the Black children's greater length of time to respond might suggest a cultural conditioning in which urgency to react to linguistic stimuli is not important. It should be reiterated that the accuracy performances of the Black and White children on the IGC and EGC stimuli were not significantly different. From a comprehensive perspective, these findings indicate that Black and White children's accuracy performances on language measures are equal, but more time is needed by Black children to complete the task.

The interaction of the Race of Listener X Stimuli on the response time measure indicated that White Standard English speakers decoded more quickly messages about EGC photographs than messages about IGC photographs. This interaction also supports the contention that White children were significantly more familiar with EGC stimuli than IGC stimuli. Black children whether dominant in Black English or Standard English responded equivalently to IGC and EGC stimuli.

Dialect

The effects of dialect in communicative effectiveness were related to the Dialect of Speaker-Message and Dialect of Listener variables. The messages were presented by tape-recorded sentences in Standard English and Black English while the Dialect of the Listener was determined by results of the Sentence Repetition Test. The Dialect of the Listener variable showed a significant main effect, with Black English speakers requiring longer response times than Standard English

speakers. Dialect of the Listener interacted with type of stimuli. Of particular interest are the responding times for the IGC and EGC stimuli by the Black English speakers, 41.4 and 41.2 seconds, respectively, compared to the 32.2 and 28.9 seconds in the same order, for the Standard English speakers. The difference in response times to IGC and EGC stimuli by Black English speakers was not significant, whereas the differences between the two stimuli approached significance for the Standard English speakers. This difference in response time by Standard English-speaking listeners to ghetto and non-ghetto stimuli was caused by White children having more trouble in responding to ghetto stimuli (see Table 6).

The Dialect of Speaker-Message produced a main effect as well as several interactions. All subjects decoded better with Standard English messages. Hypothesis I which stated that decoding within dialect would be more effective was supported by the results of Standard English speakers, but was not supported by the results of the Black English speakers. Why, therefore, do the Black English speakers decode more effectively in Standard English than in Black English? An explanation for this unexpected finding is that the Black English speakers are exposed to both dialects and are perhaps equally competent on the receptive level, their decoding ability. Perhaps, the use of their dialect may be associated with a particular context as well as with particular stimuli. For example, since this study was conducted within schools, perhaps the children have been conditioned to expect Standard

English in this educational context. There is yet another explanation for Black children's perception and attitudes toward their dialect. Often, Black English has been deemed as incorrect, even by Black children; therefore, the children may have pretended not to understand it (James, 1976).

Stimuli

While there was only one significant interaction involving stimuli on the accuracy c. choice of pictures measure, the four-way Race-Dialect of Listener X Dialect of Speaker-Message X Race of Speaker- Photograph X Stimuli, and no main effect, stimuli produced a main effect and two interactions on the response time measure. These findings demonstrated the differential effects of the Intrinsic to Ghetto Culture (IGC) and Extrinsic to Ghetto Culture (EGC) stimuli. The type of stimuli, which represented a cultural frame of reference, interacted with race and dialect of both listener and speaker to produce a higher-order interaction. While these differences did not prove statistically significant on the basis of pair-wise comparisons, the White children appeared to have created the effect by having more trouble decoding messages referring to ghetto stimuli (IGC), than EGC stimuli, particularly when given a photograph of a Black speaker.

The main effect for response time reflected the fact that the stimuli that were intrinsic to the ghetto took significantly more time to interpret than stimuli which were extrinsic to it. Further, the interaction of the Race-Dialect of Listener X Stimuli variables showed that the White Standard

English group used less time to respond to Standard English messages about EGC than IGC stimuli because the EGC stimuli represented the familiar objects and behaviors to them.

Summary

The findings of this study revealed an intricate relationship among race, dialect and cultural background. A child listener's race was not significant in decoding accuracy, but it did affect decoding speed. The shorter response time by the White children was attributed to a greater sensitivity to language on the part of the White children, and to the assumption that Black children are not conditioned to respond with urgency to linguistic stimuli. With reference to dialect, the dialect of the listener interacted with the dialect of the message via taperecorder. In general, Standard English speakers decoded better than Black English speakers within their respective dialects, and Standard English messages were better understood than Black English messages. Less time was needed to respond to Standard English messages by all the subjects. The type of stimuli also had significant impact, particularly on the time measure. Stimuli intrinsic to ghetto life were more difficult to communicate about for all subjects.

Educational Implications

The findings from this study have several implications for education. This study also shows Black English-dominant children do not decode messages as well as Standard English speakers, particularly on those measures which involve time

as a factor. Therefore, the question may be asked, what is to be done with these children?

This study offers evidence that shows the decoding ability of Standard English speakers surpassed that of Black English speakers, especially when time was a factor. This finding has definite implications for teaching. Obviously, Black English speakers will do more poorly in understanding teachers' instructions if they occur too rapidly. This investigation provides several findings whereby Black English speakers needed more time to respond to oral messages. As a result, in the classroom, the longer lapse in time to respond to the teacher's question, compared to the Standard English speakers, does not necessarily mean that the Black English students do not know the correct response, but they simply need more time to decode the message.

Secondly, there was no evidence in the study that indicated that Black English is a better instructional language for Black English speakers. The opposite occurred. Black English speakers did equally as well or better when they heard messages in Standard English; nevertheless, their performance compared to Standard English speakers with Standard English was significantly less. It appears, therefore, that Black English speakers do have a considerable knowledge of Standard English and the goal of the school system toward the Black English speakers is to improve upon that present knowledge in order to make these speakers equally functional

in the mainstream society. The reasonable pedagogical approach is to take the learner from where he is--having Black English as a dominant language, yet knowing Standard English to some degree--to where he has to go--completely mastering Standard English.

The present study examined decoding ability only. The conclusions stated above refer only to the ability of Black English speakers to understand and respond to messages in Standard English. These findings also suggest that the Black English-speaking children can understand Standard English instructions by a teacher if given time. However, can Black English-speaking children communicate effectively in Standard English? Are their encodings communicatively effective? This study did not answer questions related to productive language skills. This issue is important and should be addressed in future research because the present data indicated that White Standard English speakers have difficulty decoding Black English messages. If Black English-speaking youngsters can and routinely do communicate to Standard English speakers in Standard English, then concern for Black English problems might be unnecessary. If, on the other hand, Black English speakers can not communicate in Standard English or routinely choose not to, then they will be more poorly understood by Standard English-speaking teachers or by White Standard English-speaking classmates. The present study's results, therefore,

suggest an immediate need to begin research on Black English-speaking children's communication to Black and White listeners. Such a study would provide definitive evidence on the effects of Black English-speaking children's expressive language in school.

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Appendix A₁Sentence Repetition Test--Black English Items

1. Dat girl, she ain' go ta school 'cause she ain' got no clothes to wear.
2. John gi' me two book for me to take back to the liberry 'cause day over due.
3. I's some toys out here and de chillrund day don' wanna play wid dem no more.
4. Do Deborah like ta play wit da girl that sit nex' ta her at school.
5. De teecha gi' him a note 'bout de school meetin' an' he 'posed to gi' it ta his movah to read.
6. John he always be late for school 'cause he don' like ta go music class.
7. Can Michael make de boat by hisself or do we gotta he'p him do it?
8. Where Mary brovah goin' wif a raggedy umbrella an' a old blue rain coat?
9. I aks Tom do he wanna go ta the movie that be playin' at the RKO.
10. Henry live beside de ball park but he can' go ta de game 'cause he ain' got no money.
11. If I gi' you three dollar you gonna buy what I need ta make the spaceship?
12. When de teecha aks Henry did he do his homework Henry say I ain' dit it.

13. My aunt she live in Brooklyn an' she usa da come visit us Sunday afternoon.

14. Patricia all the time be sittin' in de front row so she can hear everything the teacha say.

15. Gloria frien', she a waitress, she be working' in de restaurant on Fulton Street.

Appendix A₂Sentence Repetition Test--Standard English Items

1. She was the girl who didn't go to school because she had no clothes wear.
2. John gave me two books to take to the library because they were overdue.
3. There are some toys out here that the children don't want to play with anymore.
4. Does Deborah like to play with the girl that sits next to her in school?
5. The teacher gave him a note about the school meeting to give to his mother.
6. John is always late to school because he doesn't like to go to music class.
7. Can Michael build the boat all by himself or should we help him with some of the work?
8. Where is Mary's brother going with a raggedy umbrella and an old blue raincoat?
9. I asked Tom if he wanted to go to the movie that was playing at the RKO.
10. Henry lives near the ball park but can't go to the games because he has no money.
11. If I give you three dollars will you buy me the things I need to make the spaceship?
12. When the teacher asked if he had done his homework, Henry said, "I didn't do it."

13. My Aunt who lives in Brooklyn used to come visit us on Sunday afternoon.
14. Patricia sits in the front row so that she can hear everything the teacher says.
15. Gloria's friend is working as a waitress in the restaurant on Fulton Street.

Appendix B

Names of Each ArrayIntrinsic to Ghetto Arrays

1. Riot scene
2. Couples dancing
3. Children playing with fire hydrant
4. Boys holding picket signs
5. Children sitting on steps
6. Child in the window
7. People on the corner
8. Men near liquor store
9. Burned-out buildings
10. Boys playing basketball

Extrinsic to Ghetto Arrays

1. Business meeting
2. Woman and men dancing
3. Men playing tennis
4. Men on strike with pickets
5. Family sitting on steps
6. Children in a tree
7. People practicing ballet steps
8. Men playing tennis
9. Men in business suits
10. People playing golf

Appendix C₁Order of Messages--Black English

1. When da riot waz here, dem menz was stealin all dat furniture.
2. Da man, he dance wif dat girl who be holdin her arm up high.
3. Dem boy dey be playin wif da water of da fire hydrant so they kin cool off.
4. Dem boy dey be holdin da picket sign in front of da building.
5. Dem children set on da step of dey buildin cause dey too little to play all by deyself.
6. Dat lady she dancin wif two mens.
7. Dat man he fixin ta hit dat gof ball sif hiz three friend.
8. Dat man jest hit da tennis ball and look like he fallin.
9. Dem menz picket, but dey don't be holdin dey sign wid dey hand.
10. Da girl be doin her ballet step while de man be doin hiz by da wall.
11. Dat chil lookin out da winda cause he movah she aint gonna let him go outside.
12. Da people dey be standin on da corner in da summer time cause it be hot in dey house.
13. Da menz dey stand cross da street from da liquor stōe cause dey don't got no money.
14. Dem menz dey be hangin out by da burn up buildin cause

dey aint got nuttin else ta do.

15. Dem boy dey playin basketball in da park.

16. Dem chiren dey be waitin for dey picture to be took in da tree.

17. Dat family dey be settin on da step of dey house.

18. Da man in da pretty suit, he have one foot on da bench ta pose for da picture.

19. Da man be standin up at da table in da meetin.

20. Da teacha standin to show dem chiren how to play music.

Appendix C₂Order of Messages--Standard English

1. When the riot was here, the men stole furniture.
2. The man dances with the girl who raises her arm.
3. The boys are playing with the water of the fire hydrant so they can cool off.
4. The boys are holding the picket signs in front of the building
5. The children are sitting on the steps of their building because they are too small to play by themselves.
6. The woman in pants dances with two men.
7. The man is ready to hit the golf ball while his three friends stand by.
8. That man just hit the tennis ball and he appears to be falling.
9. The men picket, but they are not holding the signs with their hands.
10. The girl is practicing her ballet step while the man practices near the wall.
11. The child looks out of the window because he can't go outside.
12. The people are standing on the corner during the summer because it is hot in their apartments.
13. The men stand across the street from the liquor store because they don't have any money.
14. The men come to the burned out building to spend part of

their day.

15. The boys play basketball in the park.

16. The children are waiting for their picture to be taken in the tree.

17. The family members are sitting together on the steps of their house.

18. The man in the pre'ty suit has one foot on the bench to pose for the picture.

19. The man is standing at the table at the meeting.

20. The teacher stands to show the children how to play music.

Appendix D

Revised Sentence Repetition Test
(Recorded on Tape)

1. She was the girl who didn't go to school because she had no clothes to wear.
2. I asked Tom if he wanted to go to the movie that was playing at the RKO.
3. Gloria's friend is working as a waitress in the restaurant on Fulton Street.
4. Can Michael make de boat by hisself or do we gotta hep him do it?
5. John he always be late for school cause he don't like ta go music class.
6. Where is Mary's brother going with a raggedy umbrella and an old blue raincoat?
7. Henry lives near the ball park but can't go to the games because he has no money.
8. My aunt who lives in Brooklyn used to come visit us on Sunday afternoons.
9. If I gi' you three dollar you gonna buy what I need ta make the spaceship?
10. I aks Tom do he wanna go ta the movie that be playin' at the RKO.
11. There are some toys out here that the children don't want to play with anymore.
12. Patricia all the time be sittin in de front row so she can hear everything the teacha say.

13. Gloria frien, she a waitress, she be workin in de restau-
rant on Fulton Street.
14. When the teacher asked if he had done his homework,
Henry said, "I didn't do it."
15. Can Michael build the boat all by himself or should we
help him with some of the work?
16. Does Deborah like to play with the girl that sits next
to her in school?
17. De teacha gi' him a note baout de school meetin' and he
posed to gi' it ta his movah to read.
18. John gave me two books to take to the library because
they were overdue.
19. If I give you three dollars will you buy me the things
I need to make the spaceship?
20. My aunt, she live in Brooklyn an' she use da visit us
Sunday afternoon.
21. Where Mary brovah goin' wif a raggedy umbrella an' a
old blue rain coat?
22. John is always late to school because he doesn't like
to go to music class.
23. The teacher gave him a note about the school meeting to
give to his mother.
24. Do Deborah like ta play wit da girl dat sit nex' ta hur
at school.
25. When de teacha aks Henry did he do his homework Henry
say I ain' dit it.
26. Patricia sits in the front row so that she can hear

everything the teacher says.

27. I's some toys out here and de chil'rund day don' wanna play wid dem no more.

28. Henry live beside de ball park but he can' go ta de game cause he ain' got no money.

29. John gi me two book for me to take back to the liberry cause dey over due.

30. Dat girl, she ain go ta school cause she ain' got no clothes to wear.

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