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**A comparison of the cooperative problem-solving task
interactions of Black and white children in mixed-sex,
same-ethnicity groups**

Filardo, Emily K., Ph.D.

City University of New York, 1991

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A

A COMPARISON OF THE COOPERATIVE PROBLEM SOLVING TASK
INTERACTIONS OF BLACK AND WHITE CHILDREN IN MIXED-SEX,
SAME-ETHNICITY GROUPS

by

Emily K. Filardo

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

1991

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

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Abstract

A COMPARISON OF THE COOPERATIVE PROBLEM SOLVING TASK INTERACTIONS OF BLACK AND WHITE CHILDREN IN MIXED-SEX, SAME-ETHNICITY GROUPS

by

Emily K. Filardo

Adviser: Professor Carol Kehr Tittle

Studies of children's sex-related interaction patterns in mixed-sex task-oriented groups have found that boys tend to dominate these interactions in a variety of ways. However, the research has focused almost exclusively on white, usually middle-class children, and there is almost no research on sex-related social interaction patterns in mixed-sex groups of Black children.

The present study compared sex-related social interaction patterns in mixed-sex groups of Black children with the patterns in mixed-sex groups of white children.

Eleven white groups and ten Black groups of 14-year-olds were videotaped working on a cooperative problem-solving game. Groups were composed of two boys and two girls. Subjects were eighth grade students matched on socioeconomic status (working class) and reading grade

level (average score was 8.0 for the Blacks and 8.3 for the whites).

The dependent measures were rates and percentages of occurrence of various types of utterances. The data were analyzed as 2 x 2 (ethnic group by sex) repeated measures analyses of variance. The unit of analysis was the group of four. For each group, on each dependent variable, there were two measures, the boys' response and the girls' response (the repeated measures).

The analyses revealed that there was greater equality between boys and girls in the Black groups than in the white groups on measures of: (a) level of activity (rate of occurrence of task-related utterances); (b) level of influence (the frequency with which a subject's suggestions were accepted by the group and the frequency with which a subject was interrupted by other group members); and (c) linguistic form of speech (rates of occurrence and percentages of utterances in "Aggravated," "Mitigated," and "Neutral," linguistic forms).

The findings suggest the need to: (a) further examine sex-related interaction patterns in mixed-sex Black groups, and (b) examine possible ethnicity by sex interaction effects on interaction patterns in mixed-ethnicity, mixed-sex groups. Results are discussed in terms of status expectations theory, and implications for educational research and practice are explored.

To My Parents,
Albert C. and Anne L. Filardo

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as were Dr. Zalk's suggestions regarding follow-up research.

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CHAPTER 1

INTRODUCTION

With the burgeoning of psychological research on gender or sex¹ differences in the 1970's and 1980's, a substantial body of literature has developed on sex-related differences in social behavior. One focus of this literature has been on sex-related patterns of interaction in task-oriented peer groups.

Much of this research has found that males tend to dominate mixed-sex task-oriented interactions in a variety of ways. Researchers have reported that both boys and girls direct more of their comments to boys; boys' suggestions are more likely to be followed, and they tend to be more active. Boys who seek help are more apt to receive it than girls, whose requests are more likely to be ignored or denied. Also, there is evidence that those girls who are more active or dominant may be less well liked and risk insults from boys, and there is some evidence that in general girls suffer negative social, emotional and learning outcomes from unequal peer interactions (Grant, 1983a; 1983b; 1984; 1985; 1986; Lockheed, 1985; Lockheed & Hall, 1976; Meeker & Weitzel-O'Neill, 1977, 1985; Sadker, Sadker, & Klein, 1991; Webb, 1984; Webb & Kenderksi, 1985; Wilkinson, Lindow & Chiang, 1985; Wilkinson & Marrett, 1984).

These findings are of interest from an educational perspective because small, mixed-sex task-oriented work groups are such a prevalent feature of the day-to-day organization of classrooms; children spend a great deal of their time in peer interaction, both in formal, teacher-organized, and in informal peer groups. However, one important limitation of the literature on sex-related differences in social interaction behavior, raises possible problems regarding its implications for and applicability to many school settings. That is, this literature has focused almost exclusively on white subjects, while many school systems, particularly in large cities, have high percentages of Black,² Hispanic and other non-white children.

There has been almost no research on sex-related interaction patterns among Black children, nor any research which compares Black children's sex-related patterns of interaction to those of white children, and there are few studies which have explored how patterns of sex differences among Black children may differ in significant ways from patterns among white children (Hare, 1985, p. 139).

While almost all studies that have looked at sex effects in interactions have ignored ethnicity (or race), almost all the studies that have looked at the effects of ethnicity have ignored sex, and they have not taken into

account the possibility that within ethnicity, peer interactions may be qualitatively different for children of each sex. For example, there is an abundance of research on the use of cooperative learning to improve cross-race/ethnicity relations (e.g. Slavin, 1979; Slavin, 1981; Slavin and Hansell, 1983), but this literature does not take into account the possibility that within-ethnicity sex differences may impact upon cross-ethnicity mixed-sex interactions.

It is known that, even in desegregated classrooms, "within-race interactions are proportionally more frequent than cross-race contact" (Grant, 1986). However, gender also operates as a strong barrier. "Research on desegregated schools reveals that pupils are more apt to cross racial than gender barriers in peer interactions although both race and gender constrain such choices" (Grant, 1983a, p. 59). Thus, greater knowledge of possible cross-ethnicity differences in sex-related social behavior patterns would clearly be helpful in increasing and improving cross-ethnicity mixed-gender interactions. In addition, some understanding of Black children's sex-related patterns of social behavior--and of how they may differ from the patterns among white children--may be helpful for teachers (especially white teachers) working with Black children in the many urban schools which remain substantially segregated.

Only a few studies have examined, either directly or indirectly, the combined effects of ethnicity and sex on the formation and/or operation of children's peer groups at school (e.g. Grant, 1983a; 1983b; 1984; 1985; 1986; Schofield, 1982; Mullard, 1983; Patchen, 1982; Webb & Kenderski, 1985). Similarly, few studies have explored Black children's sex-related interaction patterns inside or outside of school (but see Goodwin, 1980, 1988), and these did not compare Black children to white children.

These studies are few in number and also vary in ways which make comparison and general conclusions difficult. However, the set of studies does offer some intriguing indications that there may be greater equality in Black than in white children's mixed-sex interactions, as reflected in a variety of behaviors.

These studies suggest the need to examine the quality of social interactions between females and males within ethnic group settings. Such research, however, must be related to a theoretical model which explains and predicts sex-related differences in social behavior. That is, in order to hypothesize that Black children's mixed-sex interactions are characterized by greater equality than are those of whites, it is necessary to have a general model which would explain and predict both greater equality in Black children's mixed-sex interactions and the findings of inequality in white

children's mixed-sex interactions.

The theoretical model which will be applied here is the status expectations theory model of sex differences in social behavior. According to status expectations theory (Berger, Cohen & Zelditch, 1966; Berger & Zelditch, 1985), because females are generally perceived by both males and females as having lower status than males, in the absence of information to the contrary, and all other things being equal, both females and males expect females to be less competent at a task than males (Lockheed, 1985a).

To explain why females are generally perceived as having lower status and competence than males, status expectations theory draws upon social role theory (Eagly, 1987; Eagly & Steffen, 1984). According to social role theory, differences in males' and females' status stem from differences in males' and females' social roles, and especially from their greater representations in, respectively, the employee and homemaker roles (Eagly, 1987). A fuller description of status expectations and social role theories, and empirical support for the above contentions, are presented in the literature review which follows this introduction. It should be noted here, however, that there is evidence from outside the social roles and status expectations paradigms that daughters and sons of employed mothers do, in fact, have less sex-

stereotyped expectations and attitudes than do daughters and sons of homemaker mothers, and that employed mothers are more likely to train their children to be independent (see Gold & Andres, 1978, and reviews by Lamb, 1982, and Hoffman, 1979).

Therefore, it is reasonable to suggest that if Blacks and whites are distinguishable in terms of the distribution of men and women into the employee and homemaker roles, this could lead to different "status expectations" regarding males and females in the two subcultures. If this were the case, these different status expectations would lead to greater equality between Black males and females than between white males and females, as measured by level of activity and of influence (whose ideas are followed), during certain kinds of task-oriented cooperative social interactions.

The concept that perceptions regarding status, and associated expectations of greater or lesser task competence, are culture specific or subculture specific are part of status expectations theory (Lockheed, 1977). However, status expectations research on sex differences has thus far been limited to white subjects (see Lockheed, 1985a, for a review).

Thus the present study tested the extension of the status expectations theory of sex differences in social

behavior to Black children. The social behavior of Black and white children was directly compared in mixed-sex within-ethnicity social interactions, contrasting Black and white groups matched on school achievement and socioeconomic status.

The means of testing the equality of social behavior was first, by two measures typically used in status expectations theory studies, activity level and influence. Second, several linguistic forms will be measured. These linguistic forms have not been measured in status expectations theory research, but have been differentially associated with males and females (Lakoff, 1975) and shown to express and enact differences in power, influence and status between males and females (e.g., Kramarae, Schulz, & O'Barr, 1984; Thorne & Henley, 1975; Thorne, Kramarae, & Henley, 1983).

Two major questions were examined: (1) Is status, as measured by activity levels and influence levels, more equal between females and males in Black children's mixed-sex group interactions than in white children's mixed-sex group interactions? (2) Is there more equality in Black mixed-sex groups than in white mixed-sex groups in the relative frequency of males' and females' uses of various linguistic forms that have been shown to express and enact differences in power, influence and status?

CHAPTER 2

LITERATURE REVIEW - PART 1

Sex-Related Differences in Social Behavior

This chapter reviews the literature on sex-related differences in social behavior, examining the issue of the extent to which there are or are not sex-related differences in social behavior, and comparing the theoretical models of sex-related differences in social behavior. The empirical evidence for one of the major models, status expectations theory, is detailed. The evidence for ethnicity-related differences in sex-related patterns of social behavior is also examined, along with the major linguistic measures used in the research.

Because of the differences in Black and white sex-related behavior found to date, another theory, sex role socialization, is used to contrast the status of Black females' social roles with those of white females. These theories and empirical evidence are drawn upon to frame the following overview of the proposed study.

The Instrumental/Agentic vs. Social/Communal Dimension

Until the 1970's the prevailing theory in the psychological and sociological literature, as well as the popular stereotype, was that in interpersonal behavior in

task-oriented group situations men are "instrumental," or "task specialists," or "agenticly oriented," while women are "expressive," or "social specialists," or "communally oriented" (Eagly, 1987). Communal qualities are described as, for example, selflessness, concern with others, and a desire to be at one with others, while agentic qualities are described as, for example, self-assertion, self-expansion, and the urge to master (Bakan, 1966).

Narrative reviews: Findings of no Significant Sex Differences

With the development of feminist scholarship on gender in the 1970's, this prevailing theory was widely disputed. There was a great deal of research on sex differences in that period, and reviews of the 1970's and pre-1970's research led to "the popular 1970's verdict that sex differences are typically small or non-existent" (Eagly, 1987, p. 39). For example, Mackoby and Jacklin (1974), in their extensive review of the literature, concluded that girls are in fact neither more motivated toward "social" behavior nor less motivated towards "instrumental" behavior than boys, that boys are not generally more achievement motivated, and that girls are not reliably more dependent, affiliative, nurturant, sensitive to social cues, altruistic, or empathetic.

Although reviewers concluded that there were in general no sex differences on the instrumental/agentive vs. social/communal dimension, many inconsistencies remained in the research findings. One inconsistency was that some specific differences have, in fact, been observed in certain situations, for example higher rates of task behavior by men than women in some settings, but not in others, and higher rates of positive social behavior by women when their rates of task behavior were comparable to those of men (Meeker and Weitzel-O'Neill, 1985).

Meta-Analytic Reviews: Findings of Significant Sex Differences

Current statistical methods of reviewing and analyzing bodies of literature have led to a reinterpretation of the consistencies and inconsistencies in the findings and to a reconsideration of the belief that sex differences are typically small or non-existent.

The earlier literature reviews relied upon qualitative or narrative reviews which consisted of a brief summary of individual studies, followed by an overview of the general trend of the findings. Current meta-analytic techniques combine and analyze the results of many studies under one statistical test and provide

statistically justified methods of drawing conclusions from a large number of studies. They are much less conservative tests of differences.³

Meta-analytic reviews have, for example, found differences between men and women in studies of helping behavior; aggression; conformity and persuasion, or influenceability (especially in groups); skill in nonverbal communication; amount of smiling and laughter and use of the face and the body in social situations; and, in group discussions, behavior oriented to accomplishing the task vs. social-emotional behavior (such as acting friendly and agreeing) (Eagly & Crowley, 1986; Eagly & Steffen, 1986; Eagly, 1987; Eagly & Carli, 1981; Becker, 1986; Hall, 1984).

In sum, meta-analytic reviews have established that, although "sex differences in social behaviors are typically found to be inconsistent across studies" (Eagly, 1987, p. 40), contrary to the conclusions of qualitative, narrative reviews, "overall numerous social behaviors are to some degree sex typed along stereotypic lines" (Eagly, 1987, p. 41).

Relationship Between Objective Evidence and Popular Stereotypes

This conclusion of the meta-analytic reviews is more in accord with popular stereotypes than were the earlier conclusions that sex differences in social behaviors are non-existent or minimal. For example, the popular stereotype about behavior in interpersonal task-oriented groups (the context of interest for the present study) is that male behavior is more "instrumental," "task oriented," or "agentic" and female behavior is more "social," "emotional," or "communal." The agentic vs. communal dimension is important in people's stereotypes about males and females; studies have shown (e.g. Broverman et al, 1972; Spence & Helmreich, 1978; Ruble, 1983) that the agentic vs. communal dimension effectively summarizes most of the beliefs that people hold about the differences between women and men. Although gender stereotypes pertain to matters other than communal and agentic personal attributes or qualities, these are the most prevalent form of gender stereotype belief (Berninger & DeSoto, 1985).

The studies of males' and females' behavior in task-oriented groups seem to be at least somewhat consistent with the gender stereotype, and yet there is much variability in the findings. These results have led

Deaux to raise the question of what model best "captures both the stability and flexibility of sex differences in social behavior." She describes the problem in this way:

Those who predict stable sex differences have had trouble accounting for the often limited ability of sex to predict behavior and for a variability that sometimes appears random. Those who argue that there are no stable sex differences, on the other hand, have had difficulty explaining widespread male-female differences in the culture at large These contrasting patterns of variability and stability, of similarity and difference, have presented a persistent challenge for theories of gender" (Deaux & Major, 1987, p. 369).

Theoretical Models of Sex-Related Differences in Social Behavior

Several models have been suggested to explain and predict sex-related social behaviors. The major models are briefly summarized, followed by a more detailed description of status expectations theory, the model to be used in the present study.

I. Models Which Stress the Acquisition and Emergence of Sex-Related Behavioral Differences

The majority of the models of sex differences in social behavior stress how gender-related behaviors emerge or are acquired at some earlier time. Because of the temporal difference between the behavior being analyzed and the causes to which it is attributed in these theories, Eagly (1987) refers to them as "distal predictors." These models can be divided into two large groups (Eagly, 1987; Deaux & Major, 1987):

A. Biological models. This group includes models which focus on genetic, hormonal, and/or other physical factors as determinants of sex differences.

B. Cultural models. This group includes theories of the early social acquisition or learning of gender related behaviors. These are also called childhood socialization or "cultural explanation" theories (Eagly, 1987).

The major theories within the cultural, or social acquisition, framework are (a) psychoanalytic theory, (b) social learning theory, and (c) cognitive developmental theory.

These three perspectives, although differing in their explanatory mechanisms, all assume that early cognitive and social development mediated by early

experience, or early learning ultimately account for "adult sex differences in a wide variety of behaviors" (Deaux & Major, 1987, p. 369).

II. Structural Models

Structural, or sociological, models, such as social role theory (Eagly, 1987), and expectation states theory (Berger, Rosenholtz & Zelditch, 1980) emphasize the importance or influence of "aspects of the social structure, such as the distribution of women and men into different social roles" in explaining patterns of sex-differences in social behavior (Deaux & Major, 1987, p. 369). Because members of social groups (such as women and men) "tend to have the same or similar social position within organizations and other structures such as families [they] experience common situational constraints" (Eagly, 1987, p. 9). These common situational constraints "promote stable patterns of behavioral differences between women and men" (Deaux, 1987, p. 369). Because these theories deal with more contemporaneous influences on behavior, Eagly (1987) refers to them as "proximal predictors." Two major examples of structural models are discussed below: social role theory and status expectations theory.

Social Role Theory

According to social role theory, contemporaneous influences arising from adult social roles are more directly relevant to sex differences in adult social behavior than are biological or early developmental or socialization influences. Sex differences reflect "differing social positions of men and women more strongly than differing beliefs and values that may be instilled during childhood socialization" (Eagly, 1987 p. 9). Proponents of social role theory suggest that this theory can help to explain and resolve the puzzling disparity between the conclusion of the research literature through the early 1980's that there are few or minor sex differences (Deaux, 1984) and the persistence of popular beliefs that there are significant sex differences. Until recently, researchers assumed that the "error" or distortion was in the popular beliefs, and they focused upon the ways in which popular beliefs reflect "biases in the way we process information about others"--specifically, biases caused by "normal cognitive processes" such as "categorization of objects into groups and . . . responsiveness to salient or distinctive stimuli" (Hamilton, 1979, p. 55).

Social Role theory explanation for the disparity between popular beliefs and some research findings about sex differences

In contrast to the claim that popular beliefs are a distortion, social role theory asserts that popular beliefs about sex differences are a reflection of at least partially accurate observations of actual male and female behavior. According to this view, two reasons why sex differences in behavior may not have been captured in the research are (Eagly, 1987):

1. First, as discussed earlier, literature reviews had until recently concluded that there are no overall sex differences in social behavior because these reviews were done before meta-analytic methods were applied to the sex-difference literature.

2. Second, most of the research has been conducted in short-term contact with strangers, in which the social behavior is stripped of its usual context and free of the effects of specific natural-setting roles (Eagly & Wood, 1982). In real-life contexts, women are more likely to occupy roles that have lower status and that require communal qualities, and males are more likely to occupy roles that have higher status and require agentic qualities (Eagly, 1987; Eagly & Wood, 1982; Brown, 1979).

Social Role theory says that the existence of real-life sex differences in social roles explains the perceptions and stereotypes of sex differences and that it also is the most direct cause of sex differences even in experimental contexts apparently stripped of sex-related social roles. Social role theorists assert that women's traditional role as homemaker and men's traditional role as employee, respectively, carry communal and agentic role requirements. Even though many women now work outside the home, the percentage is still only about 45% (Labor Research Association, 1988), so "American perceivers should regard women's personal attributes as between [emphasis added] those of homemakers and employees. Because most men are employed outside the home, these perceivers should regard men's personal attributes as similar to those of employees" (Eagly, 1987, p. 22). Also, even women who work outside the home are more likely to be employed in service jobs or "helping" occupations such as that of teacher and nurse, whose role requirements stress communal behavior, and "in positions that have relatively low status and that have little power and limited opportunity for advancement" (Eagly, 1987, p. 23).

Eagly and Steffen (1984) found empirical support for the assertion that gender stereotypes about the

distribution of agentic and communal attributes among men and women stem from the distribution of men and women into homemaker and employee roles. They asked subjects to judge the attributes of men and women whose occupations were not indicated, and of men and women whose occupations were given as homemaker or full-time employees. More communal qualities and less agentic qualities were attributed to people in the domestic role than to people in the employee role. When occupational role was not indicated, subjects attributed more communal qualities and less agentic qualities to women as compared to men.

Mechanisms By Which Social Roles Function in Experimental Contexts

Two mechanisms are suggested whereby sex-differentiated real-world social roles impact upon social behavior even in experimental contexts. These are (a) through conformity to gender roles, and (b) through the transmission of skills relevant to social behaviors, and beliefs about the consequences of social behaviors.

Conformity to gender roles. Gender roles are defined as "those shared expectations (about appropriate qualities and behaviors) that apply to individuals on the basis of their socially identified gender" (Eagly, 1987, p. 12). Gender roles impact on social interaction, even

in a non-natural experimental setting. The evidence in the gender stereotype literature is mixed as to whether people conform to gender roles (a) because these roles are internalized and seen as normative, appropriate, shared, consensual, and desirable, i.e., self presentation concerns; or (b) "because of the considerable power that groups and individuals supportive of these norms have to influence others' behavior through rewards and punishments of both subtle (e.g., nonverbal cues) and more obvious (e.g., monetary incentives, sexually harassing behavior) varieties," i.e., self-verification concerns (Eagly, 1987, p. 19).

The question of which of these two explanations for conformity to gender roles is most adequate remains unresolved. Deaux & Major (1987, p. 371), in reviewing this literature, concluded that both views are partial explanations and that gender-related behavior may be motivated by either or both concerns, with one or the other carrying greater weight under different conditions.

Transmission of skills and beliefs. The second mechanism in social role theory which is said to explain the sex differences observed in experimental contexts: involves transmission to individuals of (a) skills relevant to social behaviors and (b) beliefs about

the consequences of social behaviors. These skills and beliefs, which affect behavior, are indirect manifestations of social roles because they are acquired through prior participation in roles (Eagly, 1987, p. 12).

Status: The Link Between Social Role Theory and Status Expectations Theory

One characteristic of the traditional employee and homemaker roles occupied by males and females respectively is that they tend to differ in status and authority, with male roles having greater status and authority than female roles. In fact, social role researchers (e.g., Eagly & Wood, 1982) have found empirical support for the assertion that people with high status and authority are perceived as more agentic and influence-exerting. Because high status, agentic, influence-exerting people are more often males than females, these characteristics become linked in people's sex-stereotyped beliefs about males and females.

Status expectations theory says that certain socially elaborated characteristics (such as sex) become associated with differential amounts of status; that the associated status then creates expectations about competence; and that those expectations, in turn, affect social interaction behavior. Thus the link between

social role theory and status expectations theory is that social role theory explains the first step in the status expectations sequence--that is, it explains how certain socially elaborated characteristics (such as sex) become associated with differential amounts of status.

Status Expectations Theory

Overview

Status expectations theory is a "formal theory that describes the process of status differentiation under particular situational conditions" (Lockheed, Harris & Nemceff, 1983). It offers a model of how (a) status differences influence the expectations about an actor's own behavior and about the behavior of other actors, or participants, in certain kinds of social interactions, and how (b) these expectations affect behavior patterns in social interactions. Status expectations theory was introduced by Berger, Cohen and Zelditch (1966) and was further developed and articulated in many works (e.g. Berger, Conner, & Fisek, 1974; Berger, Conner, & Zelditch, 1972; Berger, Fisek, Norman, & Zelditch, 1977; Berger, Rosenholtz, & Zelditch, 1980; and Berger and Zelditch, 1985). Over the years, the theory has generated a large research program and has undergone a number of refinements (see Berger, Connor, & Fisek, 1974,

and Berger and Zelditch, 1985 for bibliographies).

Lockheed (1985, p. 407) has concisely summarized status expectations theory as a theory which:

predicts how an observable power and prestige order develops in social groups working interdependently at a valued task for which skill is required for successful completion. Under these conditions, actors look for ways of identifying the person for whom they hold the highest performance expectation; this person's judgment about the task is deferred to by the others. If there is no immediately obvious basis for determining the relative performance expectations of group members, other information is used to make this determination. Such information includes the actors' relative states of socially evaluated characteristics called diffuse status characteristics.

Key Concepts and Assumptions of the Theory

Some of the key concepts and assumptions of expectations theory are summarized below. These include diffuse status characteristics, specific status characteristics, scope conditions, "burden of proof," and power and prestige order.

Diffuse status characteristics. There are three defining aspects of the socially evaluated

characteristics known in the theory as "diffuse status characteristics":

1. There must be two or more states of the characteristic, and these states must be differentially evaluated (Lockheed, 1985; Humphreys and Berger, 1981). (For example, for sex, the two states would be male and female.)

2. "To each state of the characteristic there corresponds a distinct set of specifically associated, evaluated states of characteristics." (For example, for sex, males would be evaluated by both males and females as being better at certain tasks such as math and science.)

3. "To each state of the characteristic there corresponds a distinct general expectation state having the same evaluation as that state of the characteristic." (Lockheed, 1985, p. 407-408). (For example, for sex, the expectation would be that males are more task-oriented and competent in general.)

It should be noted that diffuse status characteristics are not necessarily permanent, since the evaluations upon which they are based are socially defined and may change with time or vary from one society to another (Lockheed, 1985, p. 408).

Specific status characteristics. These are characteristics that are associated with specific expectation states--that is, with expectations that an actor can perform specific tasks, such as adding numbers, or of whom specific moral virtues can be expected, such as being honest. The simplest and most directly relevant kind of specific status characteristic is one that is directly instrumental to performance of the task in which individuals are engaged (Berger & Zelditch, 1985, p. 74).

Task-specific or task-related performance expectations may offset the effects of a diffuse status characteristic, but they do not reverse them. If there is information that the lower status person is especially skilled on the particular task at hand, this information does not reverse the effects of the diffuse status expectation. In other words, the high status person is not then expected to be less competent than the lower status person. Rather, the task-specific performance expectation merely neutralizes the expected disadvantage of the lower status person, so that neither one is expected to be more competent at the task.

Scope conditions. Status expectations theory does not claim to be a model of social behavior in all

situations. Rather it specifies certain "scope conditions" that "define legitimate applications of the theory" (Moore, 1985, p. 271). The "scope conditions" of status expectations theory specify the following specific conditions under which the status organizing process will occur:

1. "Actors must be involved in a collective task that requires them to evaluate each other's contributions" (Cohen, 1982, p. 213).

2. "The task to which actors are addressed [must have] outcome states that can be defined as success or failure" (Moore, 1985, p. 271).

3. The actors must be "task-oriented, that is...[they must] desire success at the task" (Moore, p. 271).

4. They must "believe that each member's contributions will affect the success or failure of the outcome" (Cohen, 1982, p. 213).

5. Group members "must be distinguishable on the basis of at least one status characteristic" (Cohen, 1982, p. 214).

These are the conditions under which "the diffuse status characteristic becomes salient and the general expectation states become connected to the task ability involved in the immediate situation" (Cohen, 1982, p.

214).

Burden of Proof. Expectations theory predicts that, all other things being equal, actors with the higher state of the diffuse status characteristic will be assumed to be more competent at a task. The phrase "all other things being equal" is a reference to the concept of "burden of proof" in status expectations theory. This is the concept that actors will assume that a diffuse status characteristic is

relevant to performance on the immediate task confronting the actors unless it is specifically dissociated from it. That is, if nothing precludes status characteristics from being relevant, actors will act as if they are relevant. They act as if the burden of proof lies in showing the status characteristics are not relevant to their task, rather than the other way around. Therefore, unless their inapplicability is demonstrated or justified, status characteristics and status advantages will as a matter of normal interaction be applied to ever new tasks and ever new situations (Berger, Wagner, and Zelditch, 1985, pp. 13-14).

This is why, as mentioned above, status expectations theory hypothesizes that task-specific or task-related performance expectations offset the effects of the status

characteristic but do not reverse them. For example, when there is information available that females are especially skilled on a particular task this does not reverse the status expectations, but merely neutralizes the expected disadvantage of females.

Power and prestige order. Another key concept of the theory is "power and prestige order." The assumption that the higher status actors have higher competence creates "performance expectations" for all the actors, which results in "the emergence of an observable power and prestige order [emphasis added] favoring those holding the relatively higher expectation advantage" (Lockheed, 1985, p. 410). This means that those "individuals will be given more opportunities to contribute to the group task and their contributions will be more positively evaluated." They will be "more active and influential vis-a-vis the task; they may also be perceived as the task leader" (Lockheed, 1985, p. 410).

"Power and prestige order" in a task-oriented group is demonstrated, according to the theory, in terms of four kinds of observable behavior:

1. "action opportunities," or distributed chances to perform;
2. "problem-solving attempts," or performance outputs;

3. "communicated evaluations," or agreements and disagreements; and

4. acceptance or rejection of influence attempts.
(See Dion, 1985, and Moore, 1985.)

"The central theoretical idea of expectation states theory is that these highly intercorrelated forms of behavior are the consequence of an underlying structure of self-other performance expectations" (Moore, 1985, p. 268).

In its earlier formulations, status expectations theory could only predict behavior when there was only one diffuse status characteristic functioning. Later formulations provide more complex models which can incorporate and make predictions about behavior when various diffuse and specific status characteristics are operating at once. In the present study there will be only one diffuse status characteristic, sex, and so those later models are not discussed here.

Theoretical predictions regarding sex as a diffuse status characteristic.

As described above, status expectations theory predicts that in social interactions which meet the scope conditions of the theory, the more competent one is expected to be by self and by others, the less one will conform to others' suggestions and the more influence one

will have. This prediction has been supported by findings that "for both males and females, confidence in one's own ability at a task is related to low levels of conformity, and having high expectations for the ability of others is related to high levels of conformity" (Meeker & Weitzel-O'Neill, 1985 p. 391). Thus, if sex functions as a diffuse status characteristic such that males are expected to be more competent, males in mixed-sex groups will have more influence and conform less than females (see Lockheed, 1985, p. 409).

Empirical Evidence from Status Expectations Theory
Research that Sex Functions as a Diffuse Status
Characteristic

A number of studies explicitly designed to meet the scope conditions of expectation states theory have borne out the above prediction, showing that sex does indeed function as a diffuse status characteristic in mixed-sex groups of adults (e.g. Crosbie, 1979; Ruch and Newton, 1977) and adolescents (Lockheed, 1977; Lockheed & Hall, 1976), but that it may not function as such among ten or eleven-year-old children (Lockheed, Harris & Nemceff, 1983). (Also see Lockheed, 1985, for a review.)

In the studies with adolescents and children, one task used to study status expectations and social interactions has been a game called "Kill the Bull" or,

later, "Shoot the Moon," and it is the game used in the present study and will be described in detail later.]

"Shoot the Moon" is a cooperative decision-making game which requires a group of four children at each turn to decide on one of a variety of possible paths by which to move a token from one side of a game board to another, following a maze. The game was constructed by Lockheed to require collective decision making and was largely a game of chance governed by the roll of the die. However it appeared to require strategic decision-making skill. (See Lockheed et al. 1983, p. 882 for a discussion of the game.) The game has been shown to be of equal interest to boys and girls and to Blacks and whites and to produce a great deal of verbal interaction (E. Cohen, personal communication, 1987).

In a study with 15 and 16-year-olds, Lockheed and Hall (1976) videotaped four-person mixed-sex (two males and two females) groups playing the game. The boys were found to have initiated more task-related acts and to have been more influential in that their suggestions were followed more often than were the girls' suggestions. These findings are consistent with the hypothesis that sex functions as a diffuse status characteristic among 15 and 16-year-olds.

In a study of fourth and fifth graders playing the same game (subjects ages were not reported), Lockheed and her colleagues (Lockheed et al., 1983) found no statistically significant sex differences in activity level or influence. However, they did find sex differences in subjects' perceptions of their team members' activity and influence: After the interaction, subjects were asked to rank order all their team members (including themselves) according to (a) who had the "best ideas" in the group and (b) how much each person did to "guide and direct" the group. They were also asked (c) to identify the one person who stood out as the "overall leader." The "boys were perceived to have better ideas than the girls and the boys received statistically significantly more leadership votes than did the girls" (p. 886). It should be noted that these perceptions had no basis in the actual observable behavior of the subjects. In fact, "on the average, girls initiated and received as many acts as did the boys in their teams and were also as influential as the boys" (p. 887).

In their discussion Lockheed and her colleagues noted that the absence of behavioral differences by sex "is somewhat perplexing in light of much adult literature to the contrary" (p. 887) but suggested that before firmly concluding that sex does not function as a diffuse

status characteristic at this age, a number of alternate explanations, which they outlined, should be further studied.

They also suggested that "somewhere between the ages of 10 and 14, sex must solidify as a diffuse status characteristic, the seeds of which [emphasis added] may be evident in the perceptions [as indicated by the questionnaire results] but are not evident in the behavior of fourth and fifth graders" (p. 888).

It should be noted, however, that status expectations research has not directly examined subjects' perceptions about each others' behavior. The theory makes predictions only about observable behavior and influence and "does not address the perceptions that underlie the status differentiation process" (Lockheed et al., 1983, p. 887).

In summary, the research based directly on status expectations theory has confirmed that sex functions as a diffuse status characteristic in adults and teenagers, although perhaps not in children 10 or 11 or younger.

Studies Outside of the Status Expectations Theory
Paradigm Which Are Consistent With Status Expectations
Theory Predictions about Sex as a
Diffuse Status Characteristic

Studies of Interactions on Non-Academic Tasks

Like the status expectations research, "most of the research on interaction in mixed-gender groups has been conducted outside the classroom using non-academic tasks (games, puzzles, nonacademic discussion, machine fixing, jury deliberations, and spatial-judgment decisions)" (Webb & Kenderski, 1985, p. 210). Males have been shown to dominate group activity in much of this work (Webb & Kenderski, 1985; Lockheed, 1985).

Studies with adults. Lockheed (1985) reviewed twenty-nine studies--which included sixty-four sets of small-group data--on the behavior of mixed-sex groups engaged collectively in a variety of problem solving tasks: puzzles, judgment tasks, discussions, and story-writing activities. Most used adult subjects (usually undergraduates); a few used high school and elementary school students. Only a few studies explicitly used the status expectations paradigm. Lockheed examined the relationship between sex and influence. Influence "was typically measured by an indicator of the extent of

contribution to the group task or by the degree to which a subject in a dyad changed his or her opinion to the opinion of the partner" (p. 411).

Lockheed found that in 70 percent of the data sets (forty-five of the sixty-four) men had statistically significantly greater task activity, influence or leadership than women. She also found that males were more influential than females on "male" tasks and also on "neutral" tasks, whereas on "female" tasks, females were not more influential, but only equally influential.

This last finding is consistent with the status expectations theory hypothesis, discussed earlier, that task-specific or task-related performance expectations offset the effects of the status characteristic but do not reverse it. In other words, when there is information available that females are especially skilled on a particular task this does not reverse the status expectations, but merely neutralizes the expected disadvantage of females.

Studies with children. Most of the studies cited by Webb and Kenderski (1985, see above) and reviewed by Lockheed (1985) have been done with adults. However, many other studies of sex differences in children's social interactions, including many studies of task-oriented groups, have found patterns of inequalities

favoring boys. Some of these studies focus on behaviors such as sharing vs. appropriation of materials, and cooperative vs. individualistic vs. competitive behaviors (e.g. Pepitone, 1980). Others focus on outcomes such as whose ideas, opinions, and judgments are followed (e.g. Webb, 1984; Webb & Kenderski, 1985; Wilkinson et al., 1985) and on learning outcomes (Webb, 1983; 1984; Eccles & Blumenfeld, 1985). Still others analyze sociolinguistic aspects of the interactions, such as the amount and the form of agreements, disagreements, praise, criticism, interruptions, requests for information and help, and responses to requests and to suggestions and questions (e.g. Webb, 1984; Webb & Kenderski, 1984; 1985; Wilkinson & Calculator, 1982a; 1982b; Wilkinson, et al., 1985). Some of the findings from this literature which are most relevant to the present study will be briefly reviewed.

Studies of Children's Interactions in the Classroom

Some recent work on interaction in mixed-gender groups in the classroom is of particular relevance here.

One study of interest is the study by Wilkinson et al. (1985) of interactions in mixed gender four-person groups (two males and two females) of second and third graders working on math problems in their regular classroom setting. Students each had their own copy of

the book of problems and worked individually, but they were instructed to ask group members for help before consulting the teacher and to check their answers with each other.

In the analysis of interactions, it was found that boys made many more requests for action and for information to boys than to girls, while girls made equal numbers of requests to boys and to girls. Boys' answers also prevailed significantly more often than girls' answers. In discussing this latter finding, Wilkinson and her colleagues offered several possible interpretations.

First, they considered a status explanation, that boys' higher status gave them greater influence. However, they noted that in some cases girls accepted boys' opinions without asking or receiving any justification for their answer, and in other cases, girls accepted boys' opinions after the boys gave explanations, demonstrations, and justifications for their answers. The fact that, as in these examples, girls often accepted the boys' ideas without the boys "exerting higher status" (p. 198) was interpreted by Wilkinson and her colleagues as evidence against the status interpretation. In other words, Wilkinson et al. were defining status as something that a person creates or "exerts" in an interaction

through his or her behavior. Since boys did not "exert" status, status was not operating and could not explain girls' accepting their opinions.

However, status expectations theory does not suggest that the person holding the higher diffuse status needs to "exert" their higher status in any way for it to influence actors' behavior. Their higher status exists not because of anything in their behavior in the group, but rather because of evaluations and expectations which actors bring to the group in advance.

Wilkinson et al. noted a second possible explanation of the fact that boys' answers prevailed significantly more often than girls' answers, that is, boys' generally acknowledged superiority in math. However they rejected this interpretation, based on the fact that their subjects did not significantly differ in math ability scores; in fact, the girls' average was slightly higher than the boys'. Other evidence not cited by Wilkinson and her colleagues, but which supports their argument, is the evidence that high ability, and even recognized high achievement, in math are less likely for girls than for boys to lead to high expectations about their success on future math tasks (see Dweck, 1986).

However, even though these particular students may have in fact been equal in math ability, status

expectations theory suggests that a specific status expectation that males are better at math, and the diffuse status expectation that males are more competent in general, could still have been operative. The actual equality in math ability may not have been salient enough to the students to override the effects of the specific and diffuse status expectations.

In sum, although interpreted differently, the findings of Wilkinson et al. (1985) regarding influence are consistent with status expectations theory predictions.

In another set of studies of classroom mixed-gender small group interactions, Webb and her colleagues (Webb, 1984; and Webb & Kenderski, 1985) observed children in junior high school mathematics classes working on math problems in mixed-gender groups of four. In both studies, subjects were assigned to groups whose members had equal mean ability. Subjects were told to "work together and not to divide the work; to help those having difficulty; and to ask for help when they needed it" (Webb & Kenderski, p. 214).

The interaction patterns for the white, middle-class, high math achieving groups in both studies followed a pattern similar to that in the Wilkinson et al. (1985) study; the interactions were unequal and

avored the males. For example, there were significant inequalities favoring males in the following behaviors: to whom requests for explanations were directed (males were favored by both males and females); who was more responsive to requests for help (females, especially to requests from males); whose requests for help tended to be responded to (males') or ignored (females').

Interestingly, contrary to expectations, the inequalities were even more marked in majority female groups than in groups with equal numbers of males and females or in majority male groups (Webb, 1984). "In majority-female groups, females focused their attention on the male in the group [whereas] [i]n majority-male groups...males focused much of their attention on other males and tended to ignore the females" (p. 41).

CHAPTER 3

LITERATURE REVIEW - PART 2

Evidence of Differences Between Black and WhiteChildren's Sex-Related Patterns ofSocial Interaction BehaviorExperimental Research

In Webb and Kenderski's (1985) study, discussed above, half the groups were from mostly white, high-achieving math classes, and half were from mostly minority (nearly all Black, with a few Hispanic students), low-achieving math classes. (The groups all had two males and two females.) Although inequalities favoring males were found in the high-achieving, upper-middle-class, mostly white groups, as discussed above, in the mostly Black, low-achieving, low-SES groups there was near greater equality between the males and females. Only two gender differences in cross-sex interaction patterns were statistically significant, and one of these differences "was in the opposite direction [emphasis added] from the result for high-achieving classes: Females were less likely than males to receive no response to their requests for explanations" (pp. 223-225). The other significant difference between females and males was consistent with that for the high-achieving white subjects: Females gave more explanations than did

males (p. 225). However, "none of the differences between males and females in the proportion of help received [number of requests answered per number of requests made] were significant" (p. 225).

Overall, females and males in the mostly Black, low-achieving, low-SES, groups had very similar verbal behavior patterns. They were unlike the high-achieving, middle-class, mostly white groups of this and the earlier study (Webb, 1984) in many ways: males did not receive more help than females; females were not less successful in obtaining responses to their questions; there was no sex pattern in the proportions of requests for explanations and information that were granted; females asked for as much help and received and gave as much help to females as males did to males; females directed fewer of their requests for explanations to males than expected by chance (based on the relative numbers of males and females in the groups); and fewer of females' failures to obtain explanations followed attempts addressed to males than expected by chance. Also, whereas "in the high-achieving classes males were more likely to receive explanations when they asked females than when they asked males, males in the low-achieving classes were somewhat less likely to receive explanations from females than from males" (p. 226).

In summary, what we see for the Black children in

this mixed-sex task-oriented group interaction is a picture of near equality between males and females, and even a slightly greater level of involvement of females. This picture is quite different from that for the mostly white, middle-class, high-achieving children, where marked inequalities favoring boys were found.

The authors' interpretation of their findings can be examined in relationship to status expectations theory. In their discussion, Webb and Kenderski (1985) noted that the sex differences they found within the high-achieving, mostly white groups may be explained by status expectations theory. Who gives help, who is asked for help, and how one's help or requests for help are responded to may all reflect the operation of status expectations, and the fact that males were favored in these behaviors would be consistent with other evidence that gender functions as a diffuse status characteristic. They pointed out that if gender operates as a diffuse status characteristic favoring boys, "this hypothesis is particularly germane to mathematics learning," which has been shown to be "often perceived as a male domain in which males are expected to be better than females, particularly in middle and late adolescence" (Webb and Kenderski, 1985, p. 230; and see Fennema and Sherman, 1977, and Sherman and Fennema, 1977).

Webb and Kenderski offered several possible explanations

for the different findings in the mostly Black, low-achieving, low-SES classes. They speculated that "in the low-achieving classes, both females and males may have perceived that no one was good in mathematics, resulting in a lack of differentiation between them and allowing the females a more prominent position in group interaction" (p. 230). In status expectations theory terms, what they are suggesting is that math ability may have functioned as a specific status characteristic which "neutralized" the effect of the diffuse status characteristic, sex.

However, since their study was not explicitly designed as a status expectations study, it did not follow the usual procedures of a status expectations study, and it violated an important scope condition of the theory: the subjects knew one another as classmates. This gave them the opportunity to have gained information about and to have developed expectations about each others' math and general competency, based on actual competency, and not diffuse status expectations such as sex.

Webb and Kenderski offered an alternate explanation for the difference between the mostly white, high-achieving groups and the mostly Black, low-achieving groups. They suggested that males in the high achieving group may have had the perception that females are low on

work orientation and therefore were unresponsive to females "because they perceived that giving help to females might not be beneficial. It is possible that this perception did not operate in low-achieving classes" (p. 231). Webb & Kenderski did not say explicitly why females may have been perceived as low on work orientation, nor why this perception would be less operative in low achieving classes, but such a perception would be consistent with the evidence discussed earlier that males are generally perceived as agentic, instrumental, or task specialists, while females are perceived as communal or social-emotional specialists.

A third possibility Webb and Kenderksi offered is that sex may not function as a diffuse status characteristic in working class and in some minority groups, and that this might explain the greater between-sex equality among the low SES, minority group subjects. They based this on some evidence (Kagan, 1982) that there is "a weak or nonexistent male performance stereotype in working-class samples and. . . that the stereotype may not operate in some minority groups" (Webb & Kenderski, 1985, p. 230)

This third possibility, that sex may not function--or may not function as strongly--as a diffuse status characteristic among Black as among white children is the question that was explored in the present study. Webb

and Kenderski's study was not designed to directly examine this question, and therefore they did not follow the status expectations theory model. Also, because achievement level, socioeconomic status, and ethnicity were confounded, it is impossible to determine which of these three or which combination of them may have been related to the differences found between the two groups. Also (as explained above), their use of a school math task, which may create its own specific status expectations, makes interpretation problematic. In addition, the subjects knew each other previously, and, finally, the task itself may not have fulfilled the scope condition requirements of status expectations theory.

Despite these problems, Webb & Kenderski's findings are not inconsistent with the hypothesis that sex functions as a diffuse status characteristic for whites but not for Blacks, or not as strongly for Blacks. Their study suggests the need for further research comparing sex-differences in Black and white children's within-ethnicity interactions.

Unfortunately, however, there has been no research directly following up on their intriguing findings. In fact, there are almost no other studies which compare Black and white children's within-ethnicity, sex-related social interaction patterns--either in small, task-oriented classroom groups or in other kinds of groups,

formal or informal, in or out of a school setting. In general, "relatively little research in the United States has compared peer relationships of minority and nonminority students" (Grant, 1986), and in particular there are few studies which examine how "patterns of sex differences among Black children...may differ in significant ways from the patterns that exist among white children" (Hare, 1985, p. 139).

Observational and Ethnographic Research

One exception is Grant's observational and ethnographic research on peer and teacher-student interactions in elementary school classrooms (see Grant, 1983a; 1983b; 1984; 1985; 1986). In one study, Grant (1983a) observed peer and teacher-student interactions in six desegregated (Black-white) first grade classrooms in a working-class community. The classes ranged from 20 to 95 percent Black. She found that across ethnicity, "girls give boys more academic and nonacademic aid and more emotional support than they receive from them" (p. 64). Also, across ethnicity, "boys were advantaged in comparison to girls in cross-gender praise, criticism, and boasting behaviors. They received more praise and emotional gratification from girls than they gave to them in return. Girls were targets of criticism more often than perpetrators" (p. 67). However, there were some

interesting differences between Black and white children: "the majority-Black classrooms showed less marked gender difference on these behaviors than the majority-white rooms, suggesting more egalitarian relationships among boys and girls" (p. 67), and "status and power differentials [were] less apparent among Black as compared to white children by gender. Black children of both genders engage[d] in more reciprocal exchanges of aid," and "Black girls [were] less apt than white girls to be intimidated by aggression, and retaliate[d] rather than back[ed] down when this occur[ed]" (Grant, 1985, p. 72).

In another study Grant (1986) observed 15 classrooms from the first to the sixth grade. These were desegregated classrooms in mostly white schools located in a community that ranged from working class to upper middle class. Grant found that at all grade levels, Black males, "more so than other students...displayed what might be termed a communal learning style. They wanted to discuss content of academic work and compare progress. Not all this contact was explicitly competitive, as was the case for white males" (p. 22).

Also, at all grades, "cross-gender interactions, especially contacts with Black boys, occurred more frequently for Black than for white girls" (p. 17). Among third and fourth graders, gender was a less

important barrier to interactions among Black than among white children. Also

an increasing proportion of cross-gender interactions were hostile for Black girls and ended in noisy verbal arguments. White and Black males tried to force these girls into the peripheral and service roles, a pattern seen at the upper but not the mid-grades for white students. But the Black girls resisted and fought back. This contrasted with Black girls' orientations in first grade, where they seemed willing, even eager to take on the 'services' roles vis a vis other students....[By the third and fourth grades]...the Black girls rarely initiated conflicts, but did not shirk them when they arose" (p. 17).

Strangely, in the fifth and sixth grades Black girls became "invisible" in the classroom, rarely interacting with teachers or peers. Grant speculates that separation in tracks may be partly responsible for this change.

By upper grades Black girls less often shared academic tracks with white students as they had in first grade, where they often were in the same reading and math groups as white boys. . . . Perhaps this separation in tracks, which increases with age, separates Black girls from potential interaction

partners with whom they might have common experiences" (p. 18).

Another factor which may contribute to this change (Schofield, 1982; Grant, 1986) is that as children approach adolescence, physical appearance becomes more important, and jealousies arise among Black and white girls for the attention of Black males. This pushes Black and white girls apart by junior high school. Also, fewer girls than boys engage regularly in team sports, which involve large-group interactions and provide opportunities for cross-racial interactions for boys in junior high school.

Grant's (1986) finding that Black girls had less frequent classroom interactions with peers and teachers at the older elementary level and Schofield's (1982) similar finding at the junior high school level do not suggest anything about how Black girls act during those peer interactions in which they do engage. Also, it can not be assumed that in general Black girls are less active or more passive in peer interactions at the junior high school level. In fact in Webb and Kenderski's (1985) study, discussed above, Black junior high school girls were more active than their white counterparts when assigned to a peer interaction task. Also, the factors which Grant suggests may have caused older Black girls in

the desegregated school in her study to interact less with peers would not operate in a mostly Black school.

Grant did not report any school achievement data on her subjects, and so it is not known how achievement may have interacted with her findings. Thus achievement, which was confounded with race and SES in Webb & Kenderski (1985), remained possibly confounded in Grant's ethnographic studies discussed here. However, SES, which was confounded in Webb & Kenderski (1985), was held constant in Grant's study (1983a) with the first graders, in which the Black and white subjects were of the same socioeconomic status--working class. (In Grant's, 1986, study of classrooms from first to sixth grade, subjects ranged from working class to upper middle class.)

Summary. In summary, the major finding of relevance to the present study in Grant's research is that there were more equal-status mixed-sex interactions among the Black working- class children than among the white working-class children. This work lends much more direct support to the hypothesis that sex functions less strongly as a diffuse status characteristic among Black children than among white children.

Sex- and Ethnicity-Related Differences in Linguistic
Forms: The Use of Mitigated and Unmitigated (or
Aggravated) Speech

Grant's studies, like Webb and Kenderski's studies, discussed earlier, involved children's peer interactions in school settings. An ethnographic study by Goodwin (1980, 1988) of peer interactions in informal play, outside of the school setting, among mixed- and same-sex groups of urban, Black working-class children offers some additional support for the hypothesis that sex may not function as a diffuse status characteristic among Black children. Goodwin reported on the interactions of these children, ages eight to thirteen, during informal play as the boys made sling shots and the girls made rings from bottle tops.

Goodwin's analysis focused on the linguistic forms used in the interactions. She examined sex-related differences in the frequency of linguistic forms which tend to either "aggravate" conflict or to "mitigate" or avoid conflict.

The notion that there are sex differences in the use of unmitigated (direct, aggravated) or mitigated (indirect) speech forms was articulated by Lakoff (1975). According to Lakoff's model of gender differences in adult females' and males' speech, women use more indirect, polite forms, for example, "I'm thirsty"

instead of "Get me a drink"; "Give it to me, okay?"
instead of "Give it to me"; "We could do it like this"
instead of "Do it like this").

Goodwin's analysis of her subjects' speech revealed sex differences in the use of direct and indirect speech forms along the general lines of Lakoff's model. She focused her analysis on "directive-response sequences." Directives were defined as "speech acts that try to get another to do something." She scored the frequency of "aggravated" and "mitigated" directives.

Aggravated directives (following Labov & Fanshel, 1977) were defined as speech acts which were references to the rights of the speaker or obligations of the recipient or to the speaker's desires. They were statements which expressed a view of the parties as having asymmetrical rights with respect to each other. They typically constituted "commands that an action should be undertaken at the time the imperative is issued" (p. 166). They were often conveyed through the use of "you," for example, "You gotta put it there!" Other examples include "Gimme the wire"; "Look man, I want the wire cutters right now"; and "I want the pliers."

Mitigated directives (also following Labov & Fanshell, 1977) were speech acts which referred to the needs of the activity or requirements of the situation,

or to the abilities of the recipient. They were often constructed as suggestions for action in the future. Mitigation was often conveyed through the use of "we," "let's," "we gonna," "we could"; for example, "We could shellac 'em" "Let's move these out first."

Goodwin found that in same-sex interactions, the boys used many more "aggravated" (or unmitigated) directives with each other than did the girls, who used many more "mitigated" directives with each other. These sex differences are consistent with Lakoff's model.

However, of particular interest in terms of the present study is what occurred in the mixed-sex groups. Contrary to what Lakoff's model and related research predicts, based almost entirely on white subjects (see Thorne & Henley, 1975, Thorne et al, 1983), in this study with Black children, Goodwin found that girls shifted their speech pattern when they interacted with boys; in mixed-sex groups, girls used aggravated or direct forms as often as the boys did, especially during arguments.

Other evidence of differences between Black and white children's patterns of sex differences in linguistic forms

Other evidence that Black girls use direct linguistic forms as often as boys do in mixed-sex interactions was found in the Webb and Kenderski (1985)

study, discussed earlier, which compared Black and white ninth grade children's mixed-sex small group classroom interactions.

Webb and Kenderski (1985) examined the form of the questions children asked, following the general approach of Wilkinson's model of the effective speaker (Wilkinson & Calculator, 1982a; Wilkinson et al., 1984), which identifies "characteristics of requests that predict obtaining appropriate responses from listeners" in student groups. Effective speakers "express themselves clearly and directly in an attempt to minimize misinterpretations of their requests" (Wilkinson et al., 1984, p. 187). Webb and Kenderski found that three categories of questions were most effective--"commands," "specific questions," and "yes-no questions." In the Black, low-achieving groups, girls asked slightly more of these effective, direct questions (77% of girls' questions and 74% of boys' questions were from the effective categories). In contrast, in the white, high-achieving groups, girls asked somewhat fewer of the effective, direct questions (64% of girls' questions and 71% of boys' questions were from the effective categories).

Speech Differences - Summary and Conclusions

In summary, Webb and her colleagues (1984, 1985) and

Wilkinson et al (1985), found that white girls used more mitigated or indirect, or less effective speech than white boys, in both same and mixed-sex interaction, findings which are consistent with the predictions of Lakoff's model of females' speech and related research.

In contrast, there is evidence (Goodwin, 1980, 1988; and Webb & Kenderski, 1985) that in mixed-sex interactions Black boys and girls use equal amounts of effective, direct, or unmitigated speech. The findings with the Black subjects were inconsistent with Lakoff's model and with the research findings on white subjects.

This ethnicity difference is important for the present study because in Lakoff's model these speech differences both express and enact differences in power, influence, and status of males and females (see Lakoff, 1975; Kramarae, et al., 1984; Thorne & Henley, 1975; and Thorne et al., 1983). Consistent with that theory, in the studies reviewed here, for both Black and white children, indirect or "mitigated" speech forms were associated with being less effective in, for example, producing a response, and in having one's ideas accepted, both of which may be classified as forms of influence. Because influence is one of the main indicators of status in status expectations theory, speech patterns which may be associated with influence are of interest here.

Thus, the evidence that among Black children there

are fewer sex-related differences in aspects of speech which reflect status than there are among white children is consistent with the hypothesis that there are fewer differences in status (as measured by activity level and influence) between Black boys and girls than between white boys and girls.

Limitations in the Applicability of the Research Findings on Ethnicity-Related Differences in Sex-Related Social Behavior to the Status Expectations Theory Paradigm

Of the studies of sex differences that included Black subjects reviewed above (by Grant, Webb and colleagues, and Goodwin), none were designed to follow the status expectations theory paradigm, and they therefore did not conform to some of the scope conditions of status expectations theory. First, they did not conform to the scope condition that subjects not know one another. Second, with the possible exception of Goodwin's study, the activity in which subjects were engaged was not "a collective task that require[d] them to evaluate each other's contributions" (Cohen, 1982, p. 213), nor was it structured so that each group member would "believe that each member's contribution [would] affect the success or failure of the outcome" (Cohen, 1982, p. 213). Third, in Grant's work (and to a lesser degree in Goodwin's work), subjects were not observed

during a clearly defined task-oriented activity, but rather in many kinds of interactions, including task-oriented and non task-oriented, informal and formal, and (in Grant's work) academic and non-academic interactions. In addition, none of these studies systematically compared Black to white subjects, under the same task conditions, and with SES and achievement held constant.

Direct Evidence from the Status Expectations Research of Differences Between Black and White Children's Mixed-Sex Interaction Patterns

Within the status expectations paradigm, there have been no studies comparing Black and white children's same-ethnicity mixed-sex interactions. Studies of sex as a status characteristic have used white subjects almost exclusively. When Black subjects have been used in status expectations studies, it has not been in studies of sex but rather of ethnicity as a diffuse status characteristic in mixed-ethnicity interactions. So there is no direct research on whether sex functions as a diffuse status characteristic among Blacks. There is, however, some limited data available (M. Lockheed, personal communication, 1988) on six Black groups and six white groups of junior high school students who were videotaped working in mixed-sex groups on the "Shoot the Moon" game task (described earlier).

Each of the four subjects (two males and two females) in each group was ranked according to his or her level of task-oriented verbal activity compared to his or her group members; a rank of "1" was the highest and "4" was the lowest. Since females were only half of the four members in each group, by chance 50% of each rank would be expected to be held by a female, and the total percentages of females would necessarily add up to 200%. Anything above or below 50% of each each rank would suggest that some other factor (such as status expectations) had influenced subjects' behavior. The rankings are shown in Table 1.

In the six Black groups, exactly 50% of the group members who ranked highest in level of activity ("1") were females--the percentage expected by chance. In contrast, in the white groups, females were less than one quarter as likely to be the most active group member; only 12% of the most active members were females. From a status expectations theory perspective, because greater levels of activity are associated with high status group members, these data suggest that sex was not operating as a diffuse status characteristic in the Black groups, whereas it was operating as such in the white groups.

The rest of the data show somewhat more mixed results. Combining the two highest and combining the two lowest activity level ranks, in the Black groups 64% of

the two most active participants were females, and 136% of the two least active participants were females, while in the white groups only 24% the two most active participants were females and 175% of the least active participants were females. So for both Blacks and whites, the percentages of subjects who were females in the most active ranks were lower than the 100% expected by chance, and (equivalently) the percentages of subjects who were females in the least active ranks were higher than the 100% expected by chance. However, the difference was greater in the white than in the Black groups. These data suggest, therefore, that although sex may have functioned to some degree as a diffuse status characteristic in both Black and white groups, the status effect was much stronger in the white groups than in the Black groups.

However, only limited inferences can be made from such a small data base (six Black groups and eight white groups). Of particular concern is the fact that, here too, SES was confounded with race. SES differences between the Black and white groups were statistically significant; the Black students came from predominantly working-class backgrounds; the whites were more likely to come from homes where parents were employed in business or other professions. Further research is needed to clarify these mixed results.

CHAPTER 4

LITERATURE REVIEW - PART 3

Sex Role Socialization in Black Culture

The relevant studies of mixed-sex interactions among whites and among Blacks, both within and outside of the status expectations research paradigm, have been reviewed. Some evidence has been found in support of the hypothesis that sex may function less strongly as a diffuse status characteristic among Black children than among white children. These studies, however, do not explain why this should be so.

To understand why sex may function less strongly as a diffuse status characteristic among Blacks, it is necessary to understand why any diffuse status characteristic exists (or does not exist), according to status expectations theory.

Although status expectations theory focuses on the situational determinants of behavior--specifically the contemporaneous circumstances under which expectations about one's own and others' competence are activated and will affect status-related social behavior--as mentioned earlier, the theory also acknowledges the role of socialization in the development of status differences between groups of people (males and females, Blacks and whites, for example). Also, it states that the

evaluation of an observable difference (such as sex) and the value placed upon the states of that characteristic (male and female) are "culture specific or subculture specific [emphasis added] and may vary widely cross-culturally" (Lockheed, 1977).

As discussed earlier, there is evidence that (a) the most prevalent form of gender stereotype belief is stereotypes about the distribution of communal and agentic attributes among males and females (Berninger & DeSoto, 1985; Broverman et al, 1972; Spence & Helmreich, 1978; Ruble, 1983), and that (b) gender stereotypes about the distribution of agentic and communal attributes among men and women stem from their differing distributions into homemaker and employee roles (Eagly & Steffen, 1984). Also, as discussed earlier, these roles tend to differ in status and authority, with the employee role having greater status and authority (Eagly, 1982). There is also evidence that daughters and sons of employed mothers have less sex-stereotyped expectations and attitudes than do daughters and sons of homemaker mothers and that employed mothers are more likely to train their children to be independent. (See Gold & Andres, 1978, and reviews by Lamb, 1982, and Hoffman, 1974).

Therefore, if Blacks and whites may be thought of as having two subcultures which are distinguishable in terms of the distribution of men and women into the homemaker

and employee roles--evidence for which is presented below--this could lead to different status expectations regarding males and females in the two subcultures.

Black women's long history of involvement in the labor force in greater percentages than white women's has been well documented (Genovese, 1974; Guttman, 1976; Davis, 1981; Pleck, 1970; Malson, 1983). There is also some empirical evidence that there may be more equalitarian relationships between Black mothers and fathers (e.g. McCray, 1980; Alexson, 1970; Entwistle & Greenberger, 1972; Scanzoni, 1975; Steinmann & Fox, 1970, Miller & Garrison, 1982). These more equalitarian adult roles, some researchers have suggested (e.g. Scanzoni, 1975; Pleck, 1970), may stem from Black women's greater participation in the role of employee. This explanation would be consistent with the social role theory explanation for sex differences in behavior which associates these differences largely with males' traditional role as employee and females' traditional role as homemaker.

Unfortunately, there is very little research and even less empirical data available on sex role socialization of children in Black families. The research that has been done has generally studied low income, low SES Black families, while the research on white families has drawn mostly from middle and upper

middle income and SES families, making comparison and interpretation of differences problematic.

However, a review of the available research, summarized below, does provide evidence suggesting that in general Black families may have greater flexibility and equalitarian goals and values for sex role socialization than do white families, and that in their socialization practices Black parents may differentiate less by child's gender as compared to white parents. (See, for example, Brookins, 1985; Baumrind, 1973; Ladner, 1971, 1978; Lewis, 1975; Nobles, 1976; Pleck, 1970; Pollard, 1985; Silverstein & Krate, 1975; Young, 1970, 1974.)

Some researchers (e.g., Brookins, 1985; Young, 1970, 1974; Lewis, 1975; Ogbu, 1985) suggest that these differences in socialization patterns may be related to the more equalitarian relationships between Black mothers and fathers (see citations above). Other researchers suggest that the particular social and economic pressures that Blacks face in United States society may lead to certain child rearing values which tend toward greater male-female equality (see, for example, Nobles, 1976; Pollard, 1985; Ogbu, 1985; Lewis, 1975; Ladner, 1971, 1978; Pleck, 1970).

These areas of research are reviewed below.

Dual Role of the Black Woman in the U.S.:

Worker/Employee and Homemaker

Black women's long history, since slavery, of working outside the home in much greater proportions than white women, has been well documented (e.g., Brookins, 1985; DuBois, 1969; Feagin, 1970; Rodgers-Rose, 1980; Lerner, 1973; Pleck, 1970; Malson, 1983; Davis, 1981; White, 1985).

The typical female slave was not a houseservant, but a field worker. Only in the border states were a significant proportion houseservants. In the mid-nineteenth century seven out of eight slaves, both women and men, were field workers. (Davis, 1981).

There is evidence (see Genovese, 1974; Guttman, 1976; and Davis, 1981) that not only did Black women "work outside the home" during slavery, but that Black men and women both worked at home. Black men and women both made great efforts to maintain and support the home and family life as a source of refuge and strength and in an effort to humanize their environment. The division of domestic work was non-hierarchical; women were more likely to cook and sew, and men to garden and hunt (to supplement the daily rations), but neither men's nor women's tasks were superior, and the division of labor was not always rigorous (Genovese, 1974; Davis, 1981).

Even after slavery, Black women continued to be

employed outside the home in greater percentages than white women. This continued until the 1970's when white women went to work in greater numbers (Malson, 1983; Gump, 1980). Black women have been and remain more likely to work outside the home than white women even in similar economic circumstances (Pleck, 1970; Malson, 1983). They have also been much less likely than white women to withdraw from the labor force after marriage and childbirth (Malson, 1983). In addition to being supported by historical tradition and culture, continuing structural conditions have insured the continuance of Black women's large-scale participation in the work force. Scanzoni (1975) argues,

Since reconstruction, white-controlled economic interests have been hesitant to hire Black men. On the other hand, they have allowed black women to work, though often at menial tasks. Consequently, within black society the notion of wife employment at all stages of the life cycle has evidently become more institutionalized than in white society (Scanzoni, 1975, p. 130).

Contemporary Sex-Role Beliefs, Behavior and Relationships Between Adult Black Men and Women

A number of reviews of the contemporary literature on Blacks' sex-role-related expectations, attitudes, and

behaviors in relationships between adult Black men and women have found evidence of a pattern generally consistent with the patterns described above for Blacks during slavery. Among the conclusions of these reviewers have been that "there are more equalitarian relationships between Black men and women than between white men and women" (Schaffer, 1981, p. 292), that Black families' power relationships are more equalitarian than those of whites (Willie & Greenblat, 1978) and that "Black families are characterized by an equalitarian pattern in decision making and performance of household tasks" (Brookins, 1985, p. 258).

There is evidence based on studies that are described below, that among some segments of the Black population, the interchanging of roles and the assumption of dual roles has been an accepted pattern of life and that Black men are more accepting and supportive of their wives' working than are white men (see, for example, McCray, 1980; Alexson, 1970; Entwistle & Greenberger, 1972; Scanzoni, 1975; Steinmann & Fox, 1970, Miller and Garrison, 1982). Most researchers trace these patterns to Blacks' heritage as slaves in this country, and they share the general view that "it is reasonable to assume that this pattern [of equality] emerged partially in response to maternal employment outside the home" (Brookins, 1985, p. 258).

An overview of studies of adult Black men and women's sex-role beliefs, behaviors, and sex-role-related aspects of their relationships follows.

In an ethnographic study of family organization, parental behavior and childrearing practices in a southern Black community, Young (1970) found a great deal of overlap in what was considered to be appropriate behavior for males and females. Both females and males were viewed as individualistic and non-conforming. Husbands and wives both had authority in the home and were responsible for the family's economic support. In sexual encounters, women are expected to be assertive.

In an interview study of 1,212 married couples living with their spouses, Ericksen, Yancey, & Ericksen (1979) found that, controlling for several socioeconomic variables, "black husbands [did] more around the house than white husbands" (p. 310) and "black husbands [did] more child care" (p. 311). Similarly, Farkas' (1976) longitudinal (five-year) interview study of 1,500 married couples also found that Black husbands spend more time at housework than white husbands. A study of attitudes of low-income couples (Cronkite, 1977), as reported by Miller and Garrison (pp. 241-242), found that "Black males are less traditional than white males in their preferences for allocating housework roles."

In a study of Black and white undergraduates' attitudes toward women's family role Steinmann and Fox (1970) found that both Black men and Black women preferred a balance between family orientation and other activities for women. Fichter (1969), as reported in McCray (1980) and in Alexson (1970), found that among recent college graduates, Black males, compared to white males, had a greater preference that their wives work regularly.

Alexson (1970), using a forced-choice pre-coded questionnaire, interviewed 565 white men and 67 Black men asking them a series of questions about whether and in what circumstances a wife should work outside the home; the impact, positive or negative, of a wife's employment upon school-age children and on a husband; questions about a wife's right to work, and to earn equal or more money than her husband; and about whether a husband would feel inadequate, and should feel inadequate about a wife earning more than him. Black men expressed greater acceptance of wives working and in general more equalitarian attitudes on these questions than did white men. Alexson also found some evidence of a social class by ethnicity interaction, with less educated Blacks being more equalitarian than more educated Blacks, and less educated whites less equalitarian than more educated whites.

Scanzoni (1975) gave a sex-roles questionnaire using Likert-type items to a large sample of married couples (2,500 couples), of whom 25% were Black and in which 45% of the wives were working full time. Consistent with expectations, Black wives saw themselves as more task-capable than did white wives, "black wives were evaluated more positively than white wives in terms of task-performance, and they [were] also perceived to possess greater marital authority than black husbands" (p. 144). Blacks of both sexes perceived themselves to be more instrumental and expressive than did whites.

Black couples were more equalitarian on questions which measured role modernity, defined as stronger preferences for the wife's individualistic interests. This was described as the more "extreme, or radical, or innovative" (p. 175) dimension. However, Black couples were less equalitarian than white couples on questions which measured a focus on the interests of the husband and children, or familistic interests. This was described as the neo-traditional and more ideological sex role dimension.

Another study (Mack, 1974) looked at marital power among 40 Black and 40 white married couples (half of the couples in each ethnic group were middle class, and half were working class). Marital power was measured using (a) a questionnaire about who usually made family

decisions, which husbands and wives filled out first separately and then jointly, discussing and resolving their disagreements; (b) a discussion task requiring them to agree upon a joint statement about each of two topics; (c) a bargaining situation involving the "sale price" of an item; and (d) a postinquiry asking the subjects to rate (on a Likert-type scale) who was the dominant partner in the marriage. On the postinquiry measure (consistent with the equalitarian trend described above) Black working class wives perceived themselves as more dominant in the marital situation than Black middle class wives or white middle or white working class wives. However, on the task involving resolution of disagreements about the questionnaire, both Black and white working class husbands were more powerful than their wives, and there were no significant differences by race on any of the behavioral measures.

Summary and Commentary

Most of the above research was a reaction to the popularity of the "matriarchy theory" among social scientists and social policy analysts (and its entry into the popular culture as a pervasive stereotype) following the 1965 publication of Moynihan's (1965) report "The Negro Family: The Case for National Action" (McAdoo, 1981). This report asserted that the lower-class Black family was matriarchal in structure, and that the Black

wife's "dominance" of her husband "was responsible for the 'breakdown' and 'pathology' of Black families" (Peters, 1981, p. 215), which was, in turn, responsible for the economic and social status position of lower-class Blacks. (Bernard, 1966, even went so far as to describe the "problem" as "the unnatural superiority of the Negro woman.") There have been many refutations of the matriarchy theory, both of its empirical basis and of its social policy implications (see, for example, Franklin, 1985; Hill, 1972; Jackson, 1973; Jackson, 1978; Ladner, 1971; Lewis, 1975; 1974; Rodgers-Rose, 1980; TenHouton, 1970), with the conclusion that, Black lower-class husbands are not "powerless in either their conjugal or their parental roles" (TenHouton, 1970, p. 170).

It should be noted that none of the studies cited above that found evidence of equalitarian sex-role expectations, attitudes and behaviors in Black marriages (and certainly not Mack's, 1974, study that found some evidence of male domination), have supported the "matriarchy" theory stereotype that Black wives dominate their husbands.

It is clear that the empirical data have measured only rather limited, circumscribed aspects of adult Black men and women's relationships, and that the direction taken by Mack and Scanzoni toward more subtle and

multidimensional analyses may reveal a more complex picture of the nature of these sex-role expectations, attitudes and behaviors. Caution is clearly warranted against interpreting the very limited data too broadly. However, overall, the empirical studies reviewed here (with the partial exceptions of Mack, 1974, and Scanzoni, 1975) have been consistent with the reviews cited earlier that found that sex-role-related expectations, attitudes, and behaviors between adult Black men and women are relatively equalitarian as compared to those of their white counterparts. Also, where social class differences were found (Alexson, 1970; Mack, 1974), lower-, or working-class, Blacks were more equalitarian than middle-class Blacks, and on one measure (see Alexson, 1970) working class Blacks and middle class whites were more equalitarian than middle class Blacks and poor whites.

Sex-Role Socialization in Black Child-Rearing Practices

It seems reasonable to expect that more equalitarian and flexible sex roles of adult Black men and women and more equalitarian relationships between Black parents might lead to more equalitarian sex-role expectations, attitudes and behaviors among Black children through the early learning processes described in the cultural models of sex-related differences in social behavior, and/or through the influence of social structures, as described

in the structural models (see section, above, "Theoretical Models of Sex-Related Differences in Social Behavior"). (Lamb's [1982] and Hoffman's [1984] review of the literature on sex-role stereotypes among children of working vs. non-working mothers [cited earlier] provides some support for this expectation.)

Unfortunately, almost no research has been found which directly examines the relationship between, on the one hand, (a) Black maternal employment, (b) the relative equality of other aspects of Black parents' relationships, (c) Black parents' sex role stereotypes, and, on the other hand, Black parents' beliefs and practices regarding sex-role socialization of their children. There has also been almost no research directly examining the relationship between any of the above and Black children's sex role stereotypes, expectations and behaviors.

One study, (Brookins, 1985) did examine the relationship between, on the one hand, Black mothers' employment and the degree to which their sex-role ideology was "egalitarian" and, on the other hand, the prevalence of egalitarian sex-role ideologies among their six- to eight-year-old children. She investigated 36 Black families, half middle class and half working class, consisting of a mother and father and at least one child six to eight years old. Brookins found that as mothers'

participation in employment increased, so did children's egalitarian sex-role scores. This result was expected, and is consistent with the thesis of the present study.

Another interesting result was unexpected and more difficult to interpret. Brookins found that not only more maternal employment (as expected) but "less egalitarian sex-role ideology and maternal job dissatisfaction contributed to children's increased egalitarian [emphases added] sex-role ideologies" (p. 265). Brookins discussed possible explanations for the negative association of maternal egalitarian sex-role ideology and job dissatisfaction with children's egalitarian sex-role ideologies. She suggests that the working mothers who had less egalitarian ideology may have experienced role conflict (Bardwick & Douvan, 1972), feeling that they should be able to perform all the duties required to run the household even while working outside the home. Their children, Brookins suggests, may have been

aware of their mothers' job dissatisfaction and their mothers' less-than-egalitarian ideas about how to divide household chores. They, then, might have come to believe that the mothers' predicament could have been ameliorated if there were a more suitable and equitable distribution and sharing of tasks in

the home. Hence, their more egalitarian sex-role ideologies (p. 266).

Because of the "historical and cultural basis of maternal employment among Blacks" (Brookins, 1985, p. 266) it seems likely that although some Black women who work outside the home may experience role conflict, role conflict may be less common among Black working women than among white working women. The relationships between maternal employment, maternal-sex-role ideology, and Black children's sex-role ideology remain to be further explored.

There is some evidence suggesting that Black parents' beliefs or ideologies about childrearing, and the childrearing practices themselves are, in some respects, more equalitarian in terms of sex role socialization than are those of white parents (Lewis, 1975; Young, 1970, 1974; Baumrind, 1973).

In an interpretive review and discussion of observational, ethnographic and empirical research on this topic, and sociological descriptions of Black culture and African culture and philosophy, Lewis (1985) suggests that

the Black child . . . is not inculcated with standards which polarize behavioral expectations according to sex. . . . Many of the behaviors which whites see as appropriate to one sex or the other,

Blacks view as equally appropriate to both sexes, or equally inappropriate to both sexes (p. 228).

These behaviors, according to Lewis, include aggressiveness, independence, self-confidence, non-conformity, nurturance, emotional expressiveness, and a focus on personal relationships (p. 230).

Two ethnographic studies of Black socialization patterns by Young (1970; 1974) have been widely cited in support of some of Lewis's contentions (Young's 1970 study only), and by others in the very limited literature on Black families' sex-role socialization patterns.

In Young's earlier study (Young, 1970) (which was cited above in the discussion of Black adults' sex-role patterns) family organization, parental behavior and child rearing practices were examined in a southern Black community.

Young found that males and females displayed similar styles of child care, both being nurturing and highly physically interactive with children. She reported that babies experienced rich social environments, being frequently held, played with, and cared for by many people of different ages (pp. 279-281). Small children of both sexes were taught at young ages to care for and fondle younger children and, at all ages, both males and females frequently displayed public affection for children.

Young also found that children of both sexes, beginning with infancy, were encouraged to display individualism and idiosyncratic behavior. The baby was also "highly stimulated and admired for his [sic] assertiveness, and his [sic] acceptance of authority was expected to be defiant" (p. 285). She viewed the socialization techniques she observed as leading to a "cultivation of will and volition" (p. 285).

In the later (1974) study, Young observed mothers in a day care program in a northern city whose staff was the mothers of the children in the program. The mothers did not receive any training to "professionalize" their interactions with the children, and each mother was in charge of her own children. Young observed and transcribed the interactions of six Black mothers, their eighteen children, and ten other Black children in the program. Here, consistent with her earlier findings, Young found a common pattern that the mother often "structured her relationship to the child as a contest between them in which she seemed to enjoy seeing the child's truculent and spirited resistance" (p. 408). According to Young, to engage successfully in these interactions, children had to develop and display assertiveness and goal persistence, cue perception, and an interpersonal focus. The mothers reinforced displays of these characteristics. While Young did not explicitly

address the issue of sex-related patterns, two of the three extended examples she provides of "contest"-style interactions are between mothers and daughters-- suggesting that this pattern does commonly occur with both girls and boys.

A comparison by Baumrind (1973) of Black and white fathers' expectations for and parenting styles with their preschool children at first seems to show that Black fathers discouraged in their daughters the assertive and independent behavior that Young found Black mothers encouraged in both sons and daughters. Baumrind compared Black and white fathers who were characterized as permissive, authoritarian, and authoritative--three parenting styles which appear in all ethnic groups (see Baumrind, 1973). She found significant differences between the fathers of Black and white girls in their parenting styles and child-rearing practices, with the Black fathers being more authoritarian. Black fathers did not promote nonconformity, they did not encourage individuality and did not provide enrichment of their daughter's environment. However Baumrind found that the Black daughters of authoritarian parents were highly independent and at ease in the nursery school setting where the observations took place.

A careful reading of Young's (1974) description of the "contest relationship" that the Black mothers in her

study encouraged with their young children suggests that Baumrind might have classified those mothers' parenting styles, too, (like the fathers' in her study) as "authoritarian." As Young described it, "the mother [was] clearly dominant. . . the child must accept her authority" (Young, 1974, p. 408) and the mothers directed a fair amount of punishment, strong teasing, and discipline (including physical discipline) at their children (pp. 408-410). Thus, it is possible that the Black fathers' "authoritarian" style may actually be better characterized as a "contest relationship" than as "authoritarian" in the way Baumrind has described it among white fathers (and mothers). In other words, apparently similar behaviors by Black and white "authoritarian" fathers may have had very different meanings and effects. Like the Black mothers, these Black fathers may have been presenting a strong, dominant challenge to their children, while encouraging them--with a variety of cues and reinforcements which Young partially describes and Baumrind's analysis may have missed--to engage in a complex, pattern of "spirited resistance." While this interpretation is only speculative, it would be consistent with the fact that the white fathers who Baumrind classified as authoritarian in parenting style were more likely (than the Black fathers similarly classified) to fit the

characteristics of an authoritarian personality syndrome (Adorno et al, 1950)--that is, dogmatic and intolerant attitudes motivated by repressed anger, emotional coldness, and a sense of impotence.

While alternative, and perhaps more complex explanations remain to be explored, McAdoo has commented, reviewing Baumrind's and other research relating to Black fathers' parenting styles, that "it would appear that Black fathers socialize their children differently than white fathers, and the impact of that process may lead to the development of high competence in girls" (McAdoo, 1981, p. 230).

Many writers have suggested a reason why many of Black parents' socialization practices are apparently geared to the development of characteristics such as those discussed above--independence, goal persistence, social-cue perception--in both boys and girls. They suggest that Black children need these, and other related qualities, or skills, in order to deal with the various conditions, situations, and demands which are particular to Blacks' experience in American society. (See Ogbu, 1985, for a brief review of this literature.) For example, Nobles (1976), as reported by Brookins (1985), "found that Black parents did not specifically teach their children sex roles but rather encouraged them to be flexible enough to compete and survive in this society"

(p. 259). Pollard (1985) reported that mothers explicitly stated that their sons and daughters should be raised similarly because their adult roles would be similar. (However, in that study, fathers anticipated that male and female children would have dissimilar pressures as adults.)

Finally, it should be noted that most of the evidence on Black parents' childrearing ideology and behaviors is for infants and young children. According to Lewis' review of the literature (1975), there is some evidence that in early adolescence there may be some shift toward greater inequality in the treatment of male and female children, with males receiving "preferential treatment in that they had greater freedom, got away with more and were in general raised in a different way" (p. 231). As children reach puberty, socialization becomes more influenced by the expectations of the dominant society and "reflects more closely the structure of expectations and opportunities provided for Black men and women by the dominant society" and the "particular conditions under which the families live" (p. 231).

Summary

Evidence has been reviewed indicating that aspects of Black parents' socialization goals, ideologies, and expectations for their children, and their socialization practices as well, are more equalitarian or egalitarian

in terms of sex roles, and are geared toward producing in both male and female children certain traits that the dominant white culture tends to associate differentially with either males or females. These include assertiveness, independence, confidence, competence, nurturance, and emotional expressivity (Lewis, 1975). There were no empirical data either finding or failing to find a direct relationship between Black parents' sex-role socialization patterns and any of the traits listed above or their children's sex-role stereotypes, expectations and behaviors (with the exception of Baumrind's, 1973, difficult-to-interpret results). Some evidence of a positive relationship between maternal employment and Black children's egalitarian sex-role ideologies was found.

Direct Evidence Regarding Black Children and Adolescents' Sex-Role Stereotypes

There has been little direct research on Black children's sex-role stereotypes, expectations, and behaviors, and some contradictory findings prevent drawing firm conclusions, but the available evidence (reviewed by Huston, 1983) does suggest that Black children may in fact have less stereotyped views of females' roles than do white children. The results of three empirical studies are briefly reported below.

In a study of the relationship of parental education, race, and gender to sex-stereotyping in five-year-old kindergarteners, Bardwell, Cochran and Walker (1986) individually administered a sex role stereotype (SRS) scale to children from six public schools located in predominantly middle class neighborhoods that all had similar kindergarten programs. The SRS scale was a dichotomous-choice picture test that assesses SRS in young children in five categories: competency, play and recreation, socio-emotional behavior, occupation, and physical appearance.

The white children gave significantly more stereotyped responses on the scale than the Black children. (The main effect for gender was not significant.) Bardwell and her colleagues also examined the relationship of parental educational level to SRS and reported that "both two- and-three-way interactions indicated that parental educational level had no influence on the SRS of Black children, while white children tended to give more stereotyped responses as the educational level of their parents increased." The researchers speculated that "in both Black and white families with less education, perhaps, there is, of necessity, more sharing of various responsibilities such as household chores and child rearing; thus, fewer sex role stereotypes are perpetuated" (p. 279). They also

speculated that Black families, unlike white families, may not become less egalitarian as educational level increases because "they are influenced less by the dominant culture's values and mores" (p. 279). Both of these speculations, while consistent with the general argument {thesis} of the present research, can not be evaluated in terms of that argument in the absence of data on maternal employment in the sample.

A study by Romer and Cherry (1980) produced results similar to those found by Bardwell and her colleagues in terms of the relationship of both race and social class to children's sex-role concepts. They examined the sex-role concepts of 360 Black, Italian and Jewish children, ages 10 to 17, in fifth, eighth and eleventh grades, from working- and middle-class families (as defined by parents' education), using a sex role questionnaire. The questionnaire produced descriptions of the self and the male and female sex-role stereotypes on both competence and expressive dimensions.

Black subjects described the male sex stereotype as extremely expressive, and significantly more expressive than did the Italian and Jewish subjects. Blacks also perceived the two sex roles as fairly similar in expressiveness, significantly more similar than did the Jewish subjects and more similar than did the Italians.

Social class status had the opposite relationship to sex-role definitions for Blacks than it did for the whites (Italians and Jews). Romer and Cherry found that Black middle-class children view[ed] the sex roles as clearly distinct on the competence dimension, describing the male stereotype as extremely competent; Black working-class children see the sex-role stereotypes as more blended on the competence dimension, describing the male sex role stereotype as relatively non-competent (p. 245).

In contrast, among the white (Italian and Jewish) subjects, "working-class children perceiv[ed] greater differences in the competence of the male and female sex-role stereotypes compared to their middle-class counterparts" (p. 258).

Romer and Cherry's comment on the ethnicity by social class interaction, is consistent with Bardwell et al's speculation (above) and the general argument being presented in the present study. Romer and Cherry note (1980) that

Middle-class Black children appear to have an almost exaggerated view of traditional dominant culture [white, middle class--E.F] sex-role stereotypes, stereotypes that perhaps even the dominant culture has begun to stray from. This supports Pinkney's assertion (1975) of Black middle-class acceptance of

White dominant cultural values. Perhaps middle-class Blacks feel that Black males must adhere to highly traditional dominant culture values in order to be acceptable to the dominant culture, as fewer degrees of freedom are permitted to Blacks than to Whites, if the former are to keep their middle-class status. Working-class Blacks are probably not so attentive to dominant culture values. They may reflect more the historical-cultural definitions of Black male economic instability and the necessity of the Black woman to be competent enough to fend for her family, thus leading to sex-role blending on this dimension (p. 259).

Also, interestingly,

working-class Black boys generally describe[d] themselves as more competent and thus more socially desirable than they describe[d] the 'typical male'. The opposite [was] true for middle-class Black boys. They describe[d] the 'typical male' as much more competent and socially desirable than they describe[d] themselves" (Romer & Cherry, 1980, p. 259).

Romer and Cherry suggest that the middle-class Black boys may have been using white males as their male sex-role stereotype, and, accepting the dominant culture's values, felt less adequate, while the working-class black

boys may have been using the Black culture's view of males as a reference, and felt more instrumental and competent and masculine in comparison.

The results of a study by Entwisle and Greenberger (1971) followed the same general pattern reported by Romer and Cherry (1980) and Bardwell et al (1986) in terms of ethnicity and social class. They looked at the responses to several questions on women's work roles included in a large survey of 575 ninth graders, of whom 227 were Black. The subjects included inner city and blue collar whites and Blacks, and rural and middle class whites. The greatest differences between girls' and boys' views were found among the middle class whites. Blacks were less opposed than whites to women working outside the home. However, they were as conservative as other groups about women holding men's jobs, and their work expectations "were not coupled with a desire to see women in positions of leadership, even though blacks generally [were] a little more favorable toward this idea than whites" p. 655). These mixed results are a reminder, as was noted earlier regarding the literature on adults, of the multidimensionality of sex-role stereotypes, expectations, and behavior and the need for caution against interpreting the limited available data too broadly.

Summary

Literature has been reviewed on (a) Blacks' sex-related social-roles and adult male-female relationships, and beliefs about these, in Black culture--historically and contemporarily, (b) sex-role socialization goals and practices in Black child-rearing, (c) Black children's and adolescents' sex-role stereotypes. This review found evidence of relatively greater sex equality among Blacks than among whites in each of these areas. It has been argued and evidence has been reviewed that this greater equality is due, at least in part, to Black females' traditional dual role in this country as homemaker and employee, or worker. In addition, some evidence was reviewed suggesting that there may be more sex equality, at least by some measures, among Black working class children and adults than among Black middle class children and adults.

Interpretation of the Relationship Between Sex Roles in Black Culture and Sex as a Diffuse Status Characteristic

Much of the literature just reviewed emphasizes that both Black childhood socialization goals and practices and adult social roles have been greatly affected by Black women's long history of working outside of the home, which has forced them to fill the dual roles of employee (or worker) and homemaker (as slaves they were

workers, but not "employees").

The importance of the employee vs. homemaker role was discussed earlier, in the review of social role theory, according to which some of the most fundamental differences between male and female social roles and stereotypes, and expectations about those differences, may be traced to (white) women's traditional role as homemaker and (white) men's traditional role as employee, which carry, respectively, communal and agentic role requirements. Because Black women have traditionally filled both those roles at greater rates than white women, and also because of evidence that there tends to be greater equality in Blacks' than in whites' sex-role-related ideology, behaviors, and childrearing practices, it is being suggested here that male and female role expectations for Blacks do not differ as much as they do for whites in terms of communal vs. agentic role requirements.

It was noted earlier that there is evidence (Eagly & Steffen, 1984) that differences in inferences about the agentic vs. communal dimension are at the core of status expectations: "Status appears to lead to a somewhat narrower set of inferences than Berger and his colleagues have claimed--namely to inferences about agentic qualities, which include dominance and submissiveness" (Eagly, 1987, p. 24). If Black females' social role

incorporates more agentic qualities than does white females' social role, this suggests that they would perceive themselves as competent and would be perceived as competent by Black males in task-oriented activities.

Status expectations theory would then predict that through the functioning of status expectations processes, Black females would be more active and influential vis a vis Black males than would white females vis a vis white males in task-oriented, mixed-sex, same-ethnicity interactions which meet the scope conditions of status expectations theory.

CHAPTER 5

PURPOSES OF THE PRESENT STUDY

The main purpose of this study was to test the prediction, derived from status expectations theory, that sex would not function as strongly as a diffuse status characteristic among Black children as among white children. A number of specific predictions were made (detailed later) regarding the relative frequencies among Black and white boys and girls of behaviors which operationalize the functioning of status expectations during interactions on a cooperative group problem solving task under conditions defined by status expectations theory.

As discussed earlier, the two main sets of variables which operationalize status in the theory are measures of (a) level of activity (the frequency of various kinds of on-task utterances during the interaction), and (b) level of influence (frequency of having one's suggestions accepted). It was expected that the white males would be significantly more active and influential than the white females. In contrast, in the Black groups, the sex differences were not expected to be significant.

The second purpose of the study was to test the prediction that (a) in the white groups, mitigated speech

would be associated significantly more with females' than with males' speech, and that aggravated speech would be associated significantly more with males' than with females' speech; (b) in the Black groups mitigated speech and aggravated speech would not be associated significantly more with females' or males' speech.

Summary of the Evidence Reviewed

Two kinds of evidence have been reviewed to justify the expectation that sex would function less strongly as a diffuse status characteristic among the Black than among the white children. These are:

1. Studies of mixed-sex task oriented social interactions among Black and white children which found evidence of greater equality in Black children's mixed-sex interactions than in white children's mixed-sex interactions. This included only one set of data from a study explicitly using the status expectations research paradigm. In that study the sample was too small for analysis, and the data were inconsistent. However, there was some indication that sex may not function as strongly as a diffuse status characteristic for Black subjects.

2. Studies of Black culture and family socialization patterns which suggest cultural reasons why sex may not function as strongly as a diffuse status characteristic among Blacks as among whites.

The evidence reviewed to justify the expectations regarding the use of mitigated and aggravated speech included studies which showed that Black girls use direct, or unmitigated speech, in task-oriented activities with Black boys more often than white girls do so with white boys (Goodwin, 1980, 1988; Webb & Kenderski, 1985; Grant, 1983a, 1985, 1986).

In the present study, task-related utterances relevant to what course of action the group should take were coded and called Performance Outputs. Performance Outputs had been coded in the previous status expectations literature. However, in the present study Performance Outputs were classified as either Mitigated, Aggravated, or Neutral in linguistic form. This had not been done before. Performance Outputs were seen as conceptually similar to "directives" (i.e., in Goodwin's research [1980, 1988], "speech acts which try to get another to do something"). The Mitigated and Aggravated classifications were derived from Goodwin's (1980) classification of "directives" as mitigated or aggravated (unmitigated) (as described earlier). The Neutral classification was added because it was believed that speech that reflects a view of the parties as having symmetrical rights with regard to each other should be distinguished from speech which reflects a view that the

speaker had less rights (mitigated) or greater rights (aggravated) with regard to the others (the listeners).

THE PRESENT STUDY

In this study, 11 mixed-sex groups composed of two white boys and two white girls, plus 10 mixed-sex groups composed of two Black boys and two Black girls--all in the eighth grade and approximately 14 years old--were videotaped working on a problem solving game task. All subjects were U.S. born, and their parents were U.S. born. Thirteen-year-olds were selected because, as discussed earlier, it is not until about that age or a year or two older that sex has been shown to function as a diffuse status characteristic (see discussion of Lockheed et al., 1983, above).

Socioeconomic status and achievement level, which were not held constant in the most directly related previous research (Webb & Kenderski, 1985; and Lockheed, 1977), were held constant in this study. All subjects were from working-class (low to lower-middle socioeconomic status) families, and they were all in the middle range of reading and math ability for their school, on the same standardized reading and math test.

The game task

The task around which the subjects interacted was briefly described earlier. It is a game that has been

used in other status expectations research. It is a cooperative problem solving, decision-making game which requires a group of four children to choose on each turn one of a variety of possible paths by which to move a token towards the finish line on a game board. Figure 1 shows the layout of the game board. The significant feature of the game was that the decision of which path to take next had to be made before knowing how many spaces they would move along that path. The number of spaces moved was determined by a roll of a die, but the die was only rolled (by the experimenter) after the group members had agreed upon and designated the next six spaces they would move. The team gained or lost points and gained or lost turns depending upon the space they landed on on each turn.

Previous studies (E. Cohen, personal communication, 1987) and piloting for the present study found that the game produces a great deal of verbal interaction. Most of the discussion revolves around two issues. The first is the larger strategic issue of whether (a) to take a more direct route in order to insure reaching the finish line within the required number of turns (14) and receive a small prize, at the risk of not obtaining enough points to win a larger, highly desirable, prize, or (b) to take a more circuitous path in order to gain more points in an effort to win the larger prize, at the risk of not

reaching the finish line within 14 turns and thus getting no prize at all. The second, and related, issue that generates discussion is how to evaluate the relative chances of gaining and losing points (or a turn) on each of the various paths the team could select on a particular turn.

It is known that sex stereotypes of a task influence sex differences in influence and activity in collaborative task groups (Lockheed, 1985). As noted earlier, the game has been shown to be of equal and high interest to boys and girls (E. Cohen, personal communication, 1987) and to Black and white children (Lockheed, 1976; Cohen, 1982).

The game was constructed to be "collective and so that no one initially would have an advantage in expertise on the particular content of the task" (E. Cohen, personal communication, 1988). In other words, the task was designed to avoid the effect of specific status characteristics related to specific abilities. Since there were numbers involved in the game, steps were taken to lessen the possibility that arithmetic ability would function as a specific status characteristic. These steps are described in the methods section, along with other steps which were taken to avoid the effects of other potential diffuse status characteristics.

CHAPTER 6

METHODOLOGY

Subjects

Subjects were 40 Black and 44 white children, ages 13 to 15, who participated in the study during the fall, winter, or spring of their eighth grade school year. The average age was 13.9 years. Most of the children (67 subjects) were 14, rounded to the nearest year; 14 of them were 13 years old, and three were 15 years old. They were all born in the United States, of parents also born in the United States. Half from each ethnicity were male and half were female. All the subjects were students at New York City Catholic parochial schools in Brooklyn, Queens, Manhattan, and the Bronx. The Black subjects attended schools that were predominantly Black (between 80 percent and 95 percent Black), and the white subjects attended schools that were predominantly white (about 95 percent white). The schools were all in lower-to middle-income working-class neighborhoods.

Permission to contact all of their kindergarten through eighth grade schools was received from The New York City Archdiocese, which administers neighborhood parochial schools in the Bronx and Manhattan, and from the Office of Catholic Education of the Diocese of Brooklyn, which administers the schools in Brooklyn and

Queens. Letters were sent to the principals of eighty-six schools requesting their permission to videotape children at their school. The schools contacted were those which were believed to be located in neighborhoods with mostly lower to middle income working class populations, and which had predominantly Black or white populations.

Thirty-three schools (38%) responded favorably to the initial letter. Eighteen of these were not visited because it was determined by telephone that they did not have the desired populations. The remaining fifteen schools were visited, and further information about the ethnic and probable socioeconomic status of the students was obtained by informal observation of the neighborhood, by observing students entering and leaving classes, by interviewing the school principal, and, in several cases, by examining school records. Five of these fifteen schools were eliminated either because they did not have sufficient numbers of students with the desired demographic characteristics or because of low rates of return of permission slips. (In several schools large numbers of the students had parents who were not born in the United States.)

Because so few schools remained which had sufficient students who both fulfilled the requirements of the study and returned permission slips, it did not become

necessary to choose among the remaining schools; every school at which at least one group could be obtained was included. The 40 subjects who formed the 10 Black groups were selected from six predominantly Black schools, and the 44 white subjects who formed the 11 white groups were selected from two predominantly white schools. (The data from four groups at a third white school were unusable due to a mechanical failure of the recording equipment.) The requirements for subject selection and the procedures for assigning subjects to groups are described below.

Subject Selection

Socioeconomic status and other demographic characteristics of subjects

At each school, the resesarcher gave every eighth grade student a questionnaire to fill out which asked for certain demographic information (see Appendix D.) The questionnaires were group administered in the regular school classroom. The instructor read aloud the instructions on each section. They were asked to write down where they were born and where their parents were born. They were told that if they didn't know the city, they could write the state, and if they didn't know the state, they could simply write the name of the country. The questionnaire also asked whether they lived with their mother, their father, both parents, or with another person or persons.

Then they were instructed to write down what kind of work their father and their mother (or the person or persons with whom they lived) did for a living. They were asked to write as full a description of these jobs as they could, in a sentence or two. They were told, "Please include not just what company your parents work for, or where they work, but what they do at that place most of the day. For example, if they work for the telephone company, what do they do there? Or if they work in a hospital or 'for the city' or in a bank, what do they actually do there?"

Then they were asked to indicate which of 18 occupational categories best represented the occupation of each parent. The categories were the categories in Stricker's (1988) occupational status measure. This is a relatively easy-to-use and well validated multiple choice measure that eliminates the difficult task of ascertaining the correct Census occupation and industry titles for the occupation as named by the respondent when open ended scales are used (such as the Duncan SEI or Siegel Prestige Scale). The revised version, which incorporates changes in the occupation groups listed in the 1970 and 1980 Census, was used. The categories include 16 job categories (such as Craft or Precision Worker; Professional; Technician; Executive or Administrator; Clerical or Administrative Support

Worker), many adapted from the Census titles for the original groups, plus two additional categories, Homemaker, and "I Don't Know." Each category is followed by examples of occupations in that category to help the respondent locate his or her occupation in a category. In addition to ease of administration, another advantage of this scale is that it operates in the same general way for both whites and Blacks and can be used to assess the respondent's occupational status or his or her parent's (Stricker, 1988).

While the children were filling out the questionnaire, the Experimenter walked around the classroom speaking to most of the children individually, asking them to describe their parents' work, and helping them to select the correct category. In some schools, it was possible to check students' responses against school records, and in many cases the teachers also knew something about the parents' occupations. It was believed that, with these checkup measures, fairly accurate information was obtained for all but a few students. When there appeared to be discrepancies that could not be resolved, those children were removed from the potential subject pool.

An effort was made to select as many subjects as possible from homes where the mother worked outside the home and both parents were present. Children who did not

live with at least one of their parents were removed from the subject pool. Sixty percent of the Black males and 60% of the Black females (12 Black males and 12 Black females) lived with both their mother and father. Ninety-one percent of the white males and 91% of the white females (20 white males, and 20 white females) lived with both their mother and father. The remaining subjects lived with their mothers only (with the exception of two Black females who lived with their fathers, and one white female for whom this information was not obtained).

An effort was made to keep in the subject pool only those children whose parent(s)' occupations, if both worked outside the home, were both in one of the following categories, which were chosen to represent working-class socioeconomic status: Mechanic or Repairer; Craft or Precision Worker; Machine Operator or Assembler; Transportation Worker; Material Moving Worker; Handler, Helper, or Laborer; Private Household Worker; Personal Service Worker; Protective Service Worker; Clerical or Administrative Support Worker; Sales Worker (but not agency manager, insurance agent, or stock broker). If only one parent worked outside the home, or only one parent's occupation was known, that parent's occupation was considered.

The SES data for the actual subjects were the following:

Six of the 40 Black subjects (15%) had one parent working outside the home whose occupation was not in one of the working-class categories listed above. (Two of these six had a father whose occupation was Armed Forces Service Member; the other four had a mother or a father who was a Professional or an Executive or Administrator.) Eight of the 44 white subjects (18%) had one parent working outside the home whose occupation was not in one of the working-class categories; one of these eight had two parents in non-working-class occupations. (All eight of these had a father or a mother who was a Professional or an Executive or Administrator.) Ten of the 44 white subjects (23%) had mothers who were Homemakers. Only three of the 40 Black subjects (8%) had mothers who were Homemakers.

Test of Subjects' Task-Related Math Ability

It was important that all subjects have the elementary knowledge necessary for active participation in the task. A determination of what knowledge was necessary was made from observation of pilot subjects. It seemed that the ability to add or subtract the numbers on the game board was not necessary. Pilot subjects made no observable attempts to add and subtract the numbers on the various paths. They pointed to, spoke of, and chose

paths which they referred to as having "lots of big numbers" or "lots of greens [positive numbers]" and rejected paths with "lots of reds [negative numbers]." They said nothing to suggest they viewed the game as a math task. They made no comments on their partner's math ability, even when they were telling their partner they thought his or her choice of a path was wrong. In summary, the conclusion based on these observations was that in order to play the game subjects needed only to be able to (a) identify the simple numbers that appear on the game board (mostly two- and three-digit numbers, with a few four-digit numbers, all ending in zero); (b) understand which numbers are larger and which are smaller; and (c) know that a minus sign means "taking away" and a plus sign means "adding."

To identify any children who did not have this basic math knowledge, the experimenter presented all the eighth graders at each selected school with the following simple group-administered paper and pencil test (see Appendix E): The first page of the test presented them with five two- and three-digit numbers: 250, 1200, 500, 70, 120. (These are numbers that appear on the game board.) The children were asked to rewrite the numbers in order "from lowest to highest" with the smallest one first. (They were first shown a sample set of five numbers out of order and then with the correct order shown.)

Anticipating that some potential subjects might confuse the directions, any student who wrote the numbers correctly in either order, starting with the lowest or with the highest was be considered to have answered correctly. The criterion for passing was to write all five numbers in correct order, either ascending or descending. Next the children were presented with a page showing four simple addition problems and four simple two-, three-, and four-digit subtraction problems in mixed order (the first, fourth, sixth, and seventh problems were addition problems). They were asked to circle the ones that "ask you to take away or subtract." The criterion for passing this part of the test was to correctly circle three of the four subtraction problems. Any children who did not pass both the sequencing and the recognition-of-subtraction tests were to be eliminated from the subject pool. In fact, none of the students failed to meet the criteria.

Subjects' Reading Grade Levels

In addition to the above procedures for eliminating subjects who did not have the minimum necessary abilities to do the task, there was one other limitation on the subject pool. Any subjects who were not in the middle range of reading level were eliminated from the subject pool. This was done by examining the range of scores for their grade and school on a standardized reading test

given to all New York City Catholic school students. Their scores from the test given in the fall of their eighth grade were used. (For four groups only their seventh grade scores were available, so a year was added to all of their scores.) A mid range of scores was established for each school which encompassed approximately 70% of the students, and all subjects were drawn from this group.

This procedure was followed for two reasons. First, it was an effort to ensure that subjects' reading levels did not affect their interaction patterns. The status expectations literature suggests that under certain conditions, reading level, a specific status characteristic, is likely to operate as a diffuse status characteristic does in spreading to new and irrelevant tasks (Cohen, 1984; 1982). According to Cohen (1984, p. 173), "peers use perceptions of reading ability as an index of some more general problem solving ability when they are engaged in group tasks in the classroom." This means that even though the game does not involve reading, if some subjects are known to have higher reading ability than others, "actors [subjects] will associate this ability with a more general problem-solving ability . . . (which) will become connected to the new task . . . and will become the basis for expectations for competence on the new task" (Cohen, 1982, p. 214). Second, it was done

to hold achievement constant between the Black and white subjects.

Both of these goals were achieved. The mean reading grade equivalent scores for the Black and the white subjects were quite close; for the Black subjects it was 8.0 (standard deviation = 1.62), and for the white subjects it was 8.3 (standard deviation = 1.32). The male and females means within ethnicity were very close, as well. The Black male and female means, respectively, were 7.9 and 8.0; the white male and female means, respectively, were 8.6 and 7.9. (The standard deviations were: for Black males, 1.25; for Black females, 1.10; for white males, 1.12; for white females, 1.42.)

All the students' math grade equivalent scores from the same standardized test were also recorded, although they were not used as criteria in selecting subjects. The mean math grade equivalent scores for the Black and the white subjects were very close; for the Black subjects it was 8.5 (standard deviation = 1.61), and for white subjects it was 8.1 (standard deviation = 1.50). The male and female means within ethnicity were close, as well. The Black male and female means, respectively, were 7.8 and 8.2; the white male and female means, respectively, were 8.2 and 7.

Assignment of Subjects to Groups

Ten Black mixed-sex groups and eleven white mixed-

sex groups were formed, each composed of two males and two females.

To avoid confounding status expectations, an effort was made to assign subjects to groups in such a manner that the groups and group members did not differ from one another on any specific or diffuse status characteristic aside from sex.

Because, as reported above, pilot subjects did not apparently perceive the game as a test of math skill, there was no effort to assign subjects to groups based on their math levels. However, as noted above, on average the males and females had nearly identical math scores in the Black and the white groups.

In addition to academic status characteristics, interpersonal relationships are also theoretically linked to influence. Status expectations theory research generally would not use people who have had rich interpersonal relationships with one another to test a status effect (such as sex). However, the schools used in this study were all small, with only one, two, or three eighth grade classes. At the schools which had more than one class, students were grouped differently for different classes. Also most of the students had attended the school for at least two or three years. So it was not possible to create groups in which the subjects would not know one another, including knowing

something about one another's reading and general academic skill levels. The following procedure was carried out in order to try to limit the influence of already established social power relationships on the experimental interaction task.

First, all eighth-grade children at each selected school were given a paper and pencil sociometric measure (see Appendix F) in which they were asked to (a) name their three best friends in their grade at school and (b) name the one child in their grade who is "most able to get other kids to do things for them" and the one who is "least able to get other kids to do things for them." No subjects were grouped together with any child who they named or who had named them as their first or second best friend, nor were they grouped with any child they had named or who had named them as most or least able to get others to do things for them (Cohen, 1982). These two procedures were done at the initial visit to the school, which was two to six weeks before the experimental interaction was scheduled. Because of the time elapsed, the interactions were believed to be unlikely to be affected by any subject's awareness of the experimenter's interest in the issues of friendship and influence suggested by these questions.

The potential subject pool was limited by the rate of return of permission slips, which was about 75% in the

white schools, and only about 25 to 30% in the Black schools. This limitation, along with all of the procedures for subject selection and for assignment to groups largely limited the possible choices in assigning subjects to groups. Where group assignments had not been completely determined by these procedures, random assignment was then used.

Materials

The materials for the game task were a game board (see Figure 1), a single die, a small cup from which the die was thrown, a chain of paper clips used to mark out the planned path for the next move, a red token used to mark where the team actually landed on each turn, and a simple turn indicator which displayed the number of turns remaining in the game. In addition, there were a sign which summarized the rules of the game (see Figure 2) and large scoring sheets upon which the subjects could see a running tally of their points from turn to turn.

Game Board

The game board was constructed by adapting the design of a game board used in a number of status expectations studies by Cohen and Lockheed (e.g. Cohen, 1982; 1984; Lockheed et al. 1983) where it was called, variously, "Kill the Bull" and "Shoot the Moon," and in the present study, "Start to Finish."

The board was a 28" by 22" piece of heavy white poster board. The playing area of the board was a large rectangular area $26 \frac{1}{4}$ " by $15 \frac{3}{4}$ ". The board contained many $\frac{3}{4}$ " by $\frac{3}{4}$ " squares (plus a few slightly larger rectangles) connected to each other and laid out in a variety of intersecting paths inside the playing area and around its perimeter. The spaces, or background areas, inside the playing area between the paths of numbered squares were all Black.

The perimeter of the playing area had 21 squares on each of its short sides and 33 squares on each of its long sides. In the middle of each square was a small white rectangle in which there was a number. Nearly all were three-digit numbers; some were two-digit numbers; and a few were four-digit numbers between one and two thousand. Almost all the numbers ended in zero. There were both positive and negative numbers. The negative numbers were indicated with a minus sign. The positive numbers had no sign indicated. The highest positive number was 1700; the lowest negative number was negative 800.

All the negative numbered squares were red, and all the positive numbered squares were green, with the exception of the squares on one path which ran straight from the middle of one long side to the middle of the other long side. On this path the squares were yellow

with green borders, for positive numbers, or yellow with red borders, for negative numbers.

The numbers on the center path were lower than the numbers on other parts of the board, and this path contained the only numbers ending in five, not zero. On the center path, the positive numbers ranged from 5 to 35 and the negative numbers ranged from negative 10 to negative 30. There was a higher proportion of negative numbers on this path than on the rest of the board. Of the 21 squares in this path, 8, or 38%, were negative numbers. Of the other 424 squares on the board, 155, or 37%, were negative. There were 27 "special" squares. Twenty of these were green squares (positive-numbered) with a Black circle around the number and seven were red squares (negative-numbered) with a Black "X" running through them. (Landing on one of the special positive square meant the team got an extra turn; they lost a turn when they landed on one of the special negative squares.)

At the bottom center of the board where the yellow path began, the word "Start" was printed, and an arrow pointing up towards the yellow path and the top of the board. At the other end of the yellow path, at the top center of the board, was an arrow pointing up and a circle labelled "Finish."

This board design is different from the board used by Cohen in several ways. The "special" squares in the

previous studies were indicated not with a circle or an "X" as in the present board design, but with two plusses or two minuses written above the number. The present design was used instead because of confusion observed among some of the pilot subjects, who thought the two plusses or two minuses meant that if they landed on one of those spaces they would gain or lose twice the number of points shown, even though they had been instructed that the double positive meant they got an extra turn and the double negative meant they lost a turn. This confusion persisted for a few of the pilot subjects, even after they asked and it was explained to them again. The alternate design was developed in order to avoid this confusion.

Another change, also for the purpose of greater clarity, was that in Cohen's design the yellow center path had no colors signalling the positive and negative numbers on that path. In the present design, the colored green or red borders were added to make it easier for subjects to quickly distinguish the positive and negative squares on the yellow path. This change was made also to lessen the need to rely on mathematics knowledge, specifically, familiarity with the negative sign. The other difference was that positive squares were green in the present design but were blue in the earlier studies.

Planning Marker

There was a planning marker used to indicate the planned path before each spin of the die. It was a chain of white paper clips, approximately 4 1/2 inches long, linked together end to end so that each one could be turned or rotated nearly 360 degrees and the chain could be laid out over any potential path, including any turns. It was long enough to cover six squares.

Token

A red plastic thimble served as a token to indicate the square to which the team actually moved once the die was thrown.

Sign Summarizing the Rules of the Game

There was a sign summarizing the rules of the game, which was a 12" x 18" piece of heavy white paper (see Figure 2) lettered with thick felt pens, with letters approximately a half inch high so that they could be easily read from about six feet away.

Turn Indicator

A turn indicator was used to display the number of turns still remaining. It was a dial made of two four-inch cardboard circles fastened together at their centers so that they could be rotated. The top circle had a small cut-out window along part of the edge. On the bottom circle were the numbers one through 14 evenly spaced in a band around the circumference, with 14 at the

top and the numbers decreasing clockwise. As the top circle was rotated clockwise, the window revealed the decreasing numbers of turns. The previous studies with this game did not use a device like this. But pilot subjects who worked without this device often turned from the interaction to ask the experimenter how many turns were left. The purpose of the turn indicator was to lessen the number of interactions with the experimenter during the task.

Scoring Sheet

There was a scoring sheet, which was an 18" by 12" piece of white paper, laid out with separate large boxes for each turn, on which the experimenter (called the host during the interaction) could write the score for each turn and a running tally. It was posted near the playing table where all four children could easily see it.

Electronic calculator

There was also a small electronic calculator to assist the host in making rapid computations, when necessary, which was important because he or she had a number of facilitating and monitoring activities to do during the game.

Prizes

In groups which reached the finish line (won the game) and also accumulated 3,700 points or more, each member received a prize of a cassette tape of popular

music. The tapes were selected from among those the subjects had named in advance on a questionnaire (see Appendix G) as the ones they would most like to have. In groups which won the game, but accumulated less than 3,700 points, each member received a large, thick felt pen in whatever color they wished. In groups which did not win the game, each member received a cookie or piece of candy.

Procedures

Two to six weeks before the interaction was videotaped at each school, the experimenter went to each eighth grade class in the school and asked volunteers to participate in a research study approved by the Archdiocese, or the Office of Catholic Education, and by their principal. They were told the researchers were interested in how they would play the game and whether they would enjoy it and find it interesting. In the white schools, the experimenter told them the study was being done together by her and by a man whom they would meet when they played the game. In the Black schools they were told that the project was being done together with a man and a woman who they would meet when they played the game. The children were assured that their participation was voluntary, that it was confidential, and that "other children who have played this game before

enjoyed it a lot." They were also told there would be prizes.

First all the students were asked to answer the basic math knowledge questions presented in writing (described earlier). The experimenter told them before they began that these were going to be very easy questions and that the only reason they were being asked to answer them was that there were some numbers on the game board, and so "we're supposed to be sure you all know some really basic, simple things about math." The experimenter expressed confidence that they all would be able to answer the questions very easily. When they saw the questions, there were always many comments like "Is that all? That's so easy!" particularly when they discovered they did not have to do the simple addition and subtraction problems presented, but merely circle the ones that "asked them to subtract." When the students finished, the experimenter said, "If you can answer these questions, you know all the math you need to know to play the game!"

Next the students answered the sociometric questions described earlier, naming their three best friends in their grade at school, and the eighth grader most, and least, "able to get other kids to do things for them."

Then they were asked to list any three cassette tapes they would like to have, and three cassette tapes

they already had which they thought other students in their class would like to have. They were told that they would be playing the game as a team, that the top prize was the cassette of their choice, and that if their team earned the top prize, each member of the team would be guaranteed to get one of the three cassettes they had listed, if they were available in the stores. This produced many enthusiastic expressions of desire to play the game.

Following this, the children were asked to fill out the demographic and socioeconomic status questionnaire described earlier. Before filling this out, and before answering each of the previous sets of questions, they were repeatedly reassured that the information was confidential, that no one in their school--students, teachers, or principal--or in the Archdiocese, or the Office of Catholic Education (for Brooklyn and Queens schools) would ever see their responses. They were told, in simplified language, that the researchers were interested only in group data, not their individual responses, and that these questions were asked because "whenever you do research like this you have to get general background information about the people who participated."

Finally they were given the parental permission slips and asked to have them signed. They were warned

that "we may not be able to choose everyone who wants to play, because we are doing this at other schools too, and we can only include people who have returned signed permission slips, so the sooner you bring in the permission slip the more likely we'll be able to include you."

The Experimental Interaction

Because it took some time for permission slips to be returned and because of school scheduling considerations, the experimental interaction took place two to six weeks after the collection of the initial questionnaire data.

It was important that there be adults of both sexes with responsible roles in the room during the experimental activity and that they be of the same ethnicity as the subjects so that each child would have a "referent actor" who was the same sex and same race as he or she. The concept of the "referent actor" in status expectations research (Humphreys and Berger, 1981; Cohen, 1982) is something like a role model. It is someone "outside the group working on the collective task, but in the situation. If a referent actor is of the same status [i.e., sex or ethnicity] as members of the group, his/her competence can affect expectations of the interactants" (Humphreys & Berger, 1981). This is true even if the referent actor's competence is demonstrated on some other ability, not the task itself, because "the process of

status generalization can still be expected to operate" (Humphreys and Berger, 1981).

Therefore, during the experimental interaction, two adults, a man and a woman, were in the room, each playing a responsible role. They were the video camera operator and the host who "ran" the game. For the Black groups these were a Black man and a Black woman; for the white groups these were a white man and a white woman. The white woman was the researcher. The white man and the Black man and woman were college students who were paid for their assistance. An effort was made to have a male host and a female camera operator in half of the groups of each ethnicity, and a female host and a male camera operator in the other half. This effort was not fully successful; among the Black groups, seven had a male host (and female camera operator), and three had a female host (and male camera operator). Among the white groups, four had a male host (and female camera operator), and seven had a female host (and male camera operator).

In addition, efforts were made to equalize the status of the host and the camera operator. The tasks of introducing the game to the children and "running" the activity were shared as much as possible between the two adults (as described below), although the host necessarily played a larger role and interacted more with the children. In general, care was taken to insure that

the camera operator was not treated as the host's assistant, but as an equal partner, and the children were told that the two adults were doing the research project together.

The experimental task was carried out at each school in an unoccupied room provided by the school--a library, a meeting room, or a classroom. When a group of four subjects entered the room, the person who would later operate the camera shuffled a set of cards numbered one to four, and each subject drew a card which indicated a seating position corresponding to the numbers one through four that were marked on the chairs. This approximated a random assignment to seating position. Subjects were seated around the table, two at the back and one on each side, so that the video camera, located about ten feet away, could clearly frame their face and their hands on the table and board. Tables were used which were not large enough to prevent any child from reaching any part of the board (although some of the children in the two positions on the sides of the board had to lean forward and stretch across the table to reach the opposite side of the board).

When the children entered the room the game board was already in place on the table with the "Start" side towards the two children in the middle. A small, flat, relatively unobtrusive omni-directional microphone was

in the middle of the side of the table closest to the camera. In some cases there was a small table to the side of the playing table where the score tallying sheet was kept. In other cases, the tally sheet was on the game table, away from the game board. The host/experimenter stood to the side of the table with his or her back to the camera. The summary of the rules of the game, the scoring sheet, and the paper wheel for keeping track of the number of remaining turns were all posted nearby where they could be easily seen and referred to by the subjects during the game. The two markers, for planning moves and for indicating actual moves, and the die and the cup will be on the table. See Figure 3 for a representation of the layout of the room.

After the children were seated, the camera operator turned on a tape recording of a man's and a woman's voice, alternately, explaining the rules of the game. A Black male and female had made the recording used with the Black subjects, and a white male and female made the recording used with the white subjects. After turning on the tape, the camera operator went to the camera to wait until the interaction began. While the tape was playing, the host stood at the table demonstrating the taped instructions. (The instructions were adapted from E. Cohen, personal communication, 1987.) (See Appendix C for a transcript of the recorded instructions.)

After the recorded instructions were played, the host answered any questions, demonstrating when it appeared helpful, and then slowly read aloud the posted summary of the rules. When all four subjects had said they understood the rules and had no more questions, and when the host was satisfied that they did understand, she or he said:

Okay, now you're ready to play. Remember you must make all decisions as a team. Usually it is easier to plan your path one move at a time, so don't think that you have to plan your whole path at the beginning. As soon as you have decided on the first six squares, tell me, and you're on your way. Good luck!

The camera operator began recording when the host began these final instructions.

The reason the host handled the planning marker (paper clips) and threw the die is that in previous studies when the children had been allowed to do this, verbal and even physical conflicts had erupted over which child got to do these things (E. Cohen, personal communication, 1988). This was to be avoided both because it would have been a distraction from the task and might have required the host's intervention and because the child who gained control of the die or a marker would have gained additional status and influence.

In piloting, an attempt was made to get the subjects to let the experimenter move the token as well, but that became too difficult to enforce, so the host started out moving the token, but if the children tried to move it themselves, they were allowed to do so.

During the game the host's activities were the following: On each turn, after the subjects indicated that they had agreed upon a path, the host placed the paper clips on the path they indicated and then threw the die. The host or a child moved the token the number of spaces indicated on the die, while the host monitored to be sure it was done correctly. The host called out the number of points gained or lost (for example, "you get 20 points" or "lose 40 points") and indicated when a turn was gained or lost ("you get an extra turn" or "you lose a turn"). She or he also wrote the score for that turn and the total score on the large score sheet, announced the total, rotated the turn-indicator, and announced the number of turns remaining.

While the subjects were deciding which path to take, it was important that they were not rushed and that they really worked to reach consensus. For this reason, while they were working, the host stood back two or three feet from the table. The host was careful not to accept one child's suggestion as a group decision without proper group agreement. Children sometimes attempted to

manipulate the host as an attempt to influence the group decision by calling the host over to announce a decision before there was proper agreement. Therefore, when the host was signaled, she or he did not step over to the group but calmly asked, "Does everyone agree?" This gave the other children an opportunity to express the fact that they had not reached consensus. Even when three or four of the group members claimed to have reached consensus, the experimenter still calmly asked, "Does everyone agree? Do you want to discuss it any more?" Frequently this opened up the whole discussion again.

The game ended when the group ran out of turns, or crossed the finish line, whichever occurred first, and the camera operator then stopped videotaping. The host thanked the children for participating and asked them to answer in writing the three questions regarding their social dating experiences which have been described earlier.

Encoded Behaviors

Two general categories of behavior, which theoretically operationalize the functioning of status expectations, were encoded from videotapes of the teams playing the game. These were "Acts" and "Influence Attempts." Except where noted, the definitions of the behaviors are drawn from previous status expectations studies (specifically Lockheed et al., 1983; and Hall, 1977). Detailed definitions of each category of behavior and rules for coding them are provided in Appendix A, Coding Rules.

Influence Attempt coding did not include any additional behaviors beyond those also coded as Acts; that is, they were additional codes assigned only to certain Acts. Thus, while all Influence Attempts were Acts, not all Acts were Influence Attempts. In addition, one category of Acts and all categories of Influence Attempts were further broken down by speech type--Aggravated, or Mitigated, or Neutral, for the reasons discussed earlier.

In addition to Acts and Influence Attempts, five categories of Non-Act utterances were encoded. They were encoded mainly because it was decided to encode all utterances in the interaction. They are defined in detail in Appendix A, Coding Rules. Only one of these categories seemed to be related to the main issue of

interest in this study, status; two other categories were related to methodological issues of the study.

The terms "actor," "person," "group member," and "subject" are used interchangeably from this point on.

Acts

The first general category of behavior encoded was "Acts." An "Act" was defined as an utterance which (a) is task-related and understandable in its own terms (expresses a complete thought) and (b) can be coded in one of the mutually exclusive categories of Acts defined below. The length of the utterance is not considered. An Act is considered continuous, regardless of pauses, as long as it remains in one category of Act, is directed continuously toward one group member or to the group as a whole (and not to the Host/Experimenter), and remains addressed to the same group member or to the group as a whole. If the recipient of an Act changes, or the category of type of Act changes, then another Act is scored (see example in the Coding Rules, Appendix A). If the actor is interrupted by another actor and then resumes, the first actor is scored for one Act; if he or she does not resume after the interruption and the thought is left incomplete, no Act is scored.

Six categories of Acts were encoded. These were:

A. Neutral Performance Outputs

- B. Aggravated Performance Outputs
- C. Mitigated Performance Outputs
- D. Action Opportunities
- E. Simple Positive Reactions/Evaluations
- F. Simple Negative Reactions/Evaluations

These six categories together encompassed nearly 80% of all task relevant speech. The categories were adapted from Lockheed et al., 1983, with the exception of the three subcategories of Performance Outputs.

The first three categories of Acts were the three types of Performance Outputs. A Performance Output is an Act that moves the task forward toward the goal of the game. It is either: (a) a suggestion or opinion regarding how to handle the situation, what course of action should or should not be taken, or how the group should or should not proceed; or (b) an act other than a suggestion or opinion, but still relevant to the question of what course of Action should be taken, for example "We only got 1,000 points and there's only three turns left." (To be coded as a Performance Output an Act had to be more than a Simple Positive or a Simple Negative Reaction/Evaluation. See definitions below.)

Neutral Performance Output

A Neutral Performance Output is a Performance Output which expresses a view of neither the speaker nor the

other actors having special rights over one another, or a view of the parties as having symmetrical rights with regard to each other. The Neutral nature of the Act may be evidenced by the words used and/or by the intonation. Examples: "Over here is better because there's more points," "We should go like this."

Aggravated Performance Output

An Aggravated Performance Output is a Performance Output which expresses lack of consideration for the point of view of the listener or a view of the parties as having asymmetrical rights with respect to each other, or as expecting compliance. This may be expressed: by an increase in force, or by being constructed as a command that a particular course of action be taken in the game or that another actor or actors carry out some action at the time the imperative is issued. The Aggravated nature of the Act may be evidenced by the particular words used and/or by the intonation. Examples: "We're going this way," "Then I'm gonna move this way," (the words express the Aggravated nature), or "This way!!" (the intonation expresses the Aggravated nature).

Mitigated Performance Output

A Mitigated Performance Output is a Performance Output which expresses a softening of the force of the statement and/or expresses consideration for the listener's point of view. It is often constructed in the

form of requests for compliance or as seeking consensus. It signals proposals rather than commands and shows no special rights over the other(s), as an Aggravated Performance Output does. It expresses that the person (persons) to whom the utterance is directed has (have) the right to reject or to disregard the statement. The Mitigated nature of the Act may be evidenced by the particular words and/or intonation used and/or by its being stated in the form of a question. Examples: "So maybe we should start over here," "Go this way?" "This could maybe be better."

Five subcategories of Mitigated Performance Outputs were defined in the Coding Rules (see Appendix A). These were not used in any of the analyses, but they were used in the coding process because they served as detailed descriptions and examples of Mitigated utterances and helped the coders to distinguish Mitigated from Aggravated and Neutral utterances. However, because of concerns about reliability and because these subcategories had not been developed from a clear theoretical or empirical basis, for data analysis the five subcategories were collapsed into one category, Mitigated Performance Outputs.

Mitigated speech, in this study, was intended to be similar to Mitigated speech in Goodwin's research, cited earlier. Goodwin's definition of Mitigated speech

included that it signaled proposals rather than commands and showed no special rights over the others; it showed consideration for the listener's point of view; and it was intended to soften or avoid conflict. However, the operational definition of mitigation in this study (that is, what kinds of words and phrases express mitigation) differed in several ways from Goodwin's operational definition. The relevant differences resulted from differences in the tasks in which the subjects were engaged. These differences are detailed in the Coding Rules.

Action Opportunity

An Action Opportunity is a socially distributed chance to perform, in the form of a question or statement seeking the input of others. Examples: "What do you think?" (Note that some Mitigated Performance Outputs also seek the input of others, such as "Let's go here, okay?" The distinction between these two categories is explained in the complete Coding Rules, Appendix A.) Despite the distinctions, the two categories are conceptually related, and thus Action Opportunities (like Mitigated Performance Outputs) were expected to be associated more with females' than with males' speech in the white groups.

Simple Positive Reaction/Evaluation

A Simple Positive Reaction/Evaluation is an Act

which: (a) agrees with or raises the status of a previous Act or actor and which unambiguously refers to another actor, or to another actor's act, and not to the actor's own previous act or thought; (b) consists either of one word of affirmation such as "yes," "yeah," or "uh-huh" (that word may be repeated, "yeah, yeah, yeah"), or any two words which each express simple affirmation, such as "Alright, yeah," and "Yeah, okay." (Either or both of the two words may be repeated.) The limit on the length of the utterance is strictly observed. If there are three different words of affirmation (such as "Okay, yeah, right"), the utterance is not scored in this category, but, instead, as a Performance Output. The only additional word allowed is the name of an actor; thus "Yeah, okay Mary" is scored in this category.

Simple Negative Reaction/Evaluation

A Simple Negative Reaction/Evaluation is an Act which: (a) disagrees with or lowers the status of a previous Act or actor and which unambiguously refers to another actor, or to another actor's act, and not to the actor's own previous act or thought; (b) consists either of one word of negation such as "no," "dumb" or "uh-uh" (that word may be repeated, "no, no, no, no"), or any two words which each express simple negation, such as "Uh-uh, no." (Either or both of these words may be repeated.) The limit on the length of the utterance is strictly

observed. If there are three different words of negation (such as "No, uh-uh, dumb"), the utterance is not scored in this category, but, instead, as a Performance Output. The only additional word allowed is the name of an actor; thus "Uh-uh, no, Mary" is scored in this category.

Further Explanation of the Coding and Interpretation of Simple Positive and Simple Negative Reactions/Evaluations, and of Action Opportunities

Simple Positive and Simple Negative Reactions/Evaluations. These two categories were defined somewhat differently from the category called "Evaluations" in most of the status expectations literature. Unlike in that literature, many utterances which were evaluative comments about another actor or another actor's utterance were not separately coded. Instead they were simply coded as Performance Outputs if they fulfilled the other parts of the definition of Performance Outputs and if they were more than the very short utterances defined as Simple Positive and Simple Negative Reactions/Evaluations. As explained above (and in greater detail in the Coding Rules), only those utterances that were very short, unelaborated, one- or two-word utterances such as "yeah" or "yeah, uh-uh" or "no" were coded as Simple Positive or Simple Negative

Reactions/ Evaluations. This seemingly arbitrary limit on the number of words permitted for an utterance to be defined in these two categories was chosen because these brief utterances seemed very different from other Acts, including other evaluative Acts, in terms of the level of participation in the interaction (and perhaps the level of influence) that they expressed. Compare, for example, "Yeah" with "Yeah, that's right, okay, good" or with "Yeah, that's a really good idea; we do need to get more points."

Therefore, frequent initiation of, and especially a high percentage of all Acts being Simple Positive Reactions/ Evaluations were believed to be possible additional indicators of a less active role in the interaction, which is associated with low status. For Simple Negative Reactions/Evaluations, it was more difficult to judge whether a high rate and percentage of these Acts would reflect low status. On the one hand, these are short, unelaborated utterances, which suggests less activity or participation (and thus, less status). On the other hand, they are expressions of direct disagreement with another actor or actors, and there is evidence that expressions of disagreement are associated with high status actors more than with low status actors (Moore, 1985).

Action Opportunities. This category was defined in the status expectations research cited earlier. As noted above, the definition of Mitigated Performance Outputs, a category which was not defined in the previous status expectation research, was quite close to the definition of Action Opportunities. The distinction is explained in the Coding Rules, but conceptually the two categories remain closely related. Thus, a frequent initiation of and a high percentage of all Acts being Action Opportunities was expected to be associated with females more than males, and especially with white females more than with white males.

Additional Clarifications/Explanations of the Coding of All Acts

Previous researchers have found "there is such a strong intercorrelation between Performance Outputs, Evaluation remarks, and Action opportunities that [it is no longer considered] necessary [to encode them]"; rather, it is only necessary to count the total number of task-related Acts, a system which also results in excellent reliability (E. Cohen, personal communication, 1988). However, in the present study the number of occurrences of each of the separate categories of Acts was counted, in addition to counting the total number of Acts. This was done because Performance Outputs were

conceptually similar to "directives" in Goodwin's research cited earlier (Goodwin, 1980, 1988), and the linguistic form of this type of utterance was of interest in the present study. Also, it was easy to count the frequencies of all the categories, since it was necessary to distinguish them in order to distinguish one act from another and to count the number of Acts.

There was another difference which should be noted between the coding in the present study and the earlier research. Some previous status expectations studies have recorded to whom each Act was addressed (either to which individual or to the group as a whole). However, this was not done here because being the recipient of Acts "is almost a perfect function of how frequently the person talks. In other words, people talk to those who are talking more," therefore the coding system can be simplified, and reliability increased, by not recording the recipients of acts (E. Cohen, personal communication, 1988).

Influence Attempts

The second general category of encoded behavior was "Influence Attempts," which are defined as attempts to persuade another person or persons to agree to follow a specific, clearly indicated path (see Appendix A, Coding Rules, for examples). Influence Attempts were encoded as

either proposing or defending a proposal. Proposing refers to being the actor who initially makes a suggestion to follow a particular path that is either (a) eventually adopted by the group, constituting a Successful Proposal, or (b) eventually not adopted, or rejected, by the group, constituting an Unsuccessful Proposal. Defending refers to defending a proposal, either (a) one that is eventually adopted, constituting a Defense of a Successful Proposal or (b) one that is eventually rejected, constituting Defense of an Unsuccessful Proposal (see Lockheed et al., 1983). These were the four main categories of Influence Attempts.

Each utterance which was one of these four types of Influence Attempts was also a Performance Output and thus was subcategorized by linguistic form as either Aggravated, Neutral or Mitigated. Linguistic form was of interest in the present study for the reasons discussed earlier, but the previous status expectations research using this paradigm had not encoded linguistic form. Also, the previous research encoded only Successful Proposals and Defenses of Successful Proposals, but not Unsuccessful Proposals or Defenses of Unsuccessful Proposals (see Lockheed et al., 1983).

The four main categories of Influence Attempt scores are listed below as letters A to D, along with the three subcategories which encode whether the Influence Attempt

was in Neutral, Aggravated, or Mitigated form.

- A1. Successful proposal: Neutral form
- A2. Successful proposal: Aggravated form
- A3. Successful proposal: Mitigated form
- B1. Defense of a successful proposal: Neutral form
- B2. Defense of a successful proposal: Aggravated form
- B3. Defense of a successful proposal: Mitigated form
- C1. Unsuccessful proposal: Neutral form
- C2. Unsuccessful proposal: Aggravated form
- C3. Unsuccessful proposal: Mitigated form
- D1. Defense of an unsuccessful proposal: Neutral Form
- D2. Defense of an unsuccessful proposal: Aggravated Form
- D3. Defense of an unsuccessful proposal: Mitigated Form.

The Defense of a Successful Proposal or of an Unsuccessful Proposal could be scored either to the person who made the initial proposal or to any other group member.

As all Acts were, by definition, verbal, all Influence Attempts were also verbal. No gestures (including head nods) were scored. The only exception was that in a small number of instances, Successful

Proposals consisted of a gesture only--tracing a path with a finger. These were encoded and scored as Neutral Proposals. (See the Coding Rules and the Rules for Transcribing the Videotapes, Appendix B, for further explanation.)

Non Acts

The third general category of encoded behavior was "Non-Act" utterances. Together, Non-Acts and Acts encompassed all utterances occurring during the interaction. (Of all utterances, 21% were non-Acts and 79% were Acts.) There were five categories of Non-Act Utterances. As mentioned earlier, only one of these categories was related to the issue of status; two other categories were related to methodological issues. However, all five categories were all encoded because it had been decided to encode all utterances, in order to obtain counts of total utterances, total on-task utterances, and percents of utterances which were on task. The five categories of Non-Acts are listed below, followed by their letter symbol as given in the Coding Rules, and a brief definition. Detailed definitions of each category may be found in the Coding Rules (Appendix A).

Non-Act Task-Related Utterances (T)

Non-Act Task-Related Utterances were task related utterances which did not fall into any of the six categories of acts. Often they were utterances which appeared to be addressed to the actor herself or himself. For example, "Oh boy!" or, "A three!" There was no basis for believing that the frequency of occurrence (or percentage) of these utterances would be relevant to the issues of interest in this study (status or linguistic form).

Incomplete, Interrupted Utterances (I)

Incomplete, Interrupted Utterances were utterances which appeared to be relevant to what course of action should be taken, but were interrupted by another actor and were not resumed after the interruption and were not complete enough at the time they were interrupted to meet the definition of an Act. According to status expectations theory, this category reflected low status and influence in the interaction. Specifically, it was believed that the more often an actor's utterances were interrupted and not completed (and the greater the percentage these were of all utterances) the less influential and therefore the lower in status was that actor.

Uncodable Utterances (U)

Uncodable utterances were utterances whose meaning

could not be unambiguously discerned, usually because the words were partly or completely unidentifiable, and which did not convey enough information or meaning to be coded in any of the six categories of Acts. It was not believed that the frequency of occurrence (or percentage) of these utterances would be relevant to the issues of interest in this study (status or linguistic form). However, the rates and percentages of these were of interest as indicators of how much of the observed speech the coding system was unable to encompass.

Non-Task-Related Utterances (X)

Non-Task-Related Utterances were utterances which were not task-related. It was important to the study that subjects of both genders and of both ethnicities be equally interested in the task. This category was of interest because it served as an indicator of how task-oriented the subjects were.

Utterances Directed to the Experimenter (Ex)

Utterances Directed to the Experimenter were utterances which were directed either to the game "host" or to the camera operator. The nature of the utterances directed to the experimenter were not encoded, as the interest here was on the interaction patterns among the subjects. Therefore, there was no basis for relating the frequency of occurrence, or percentage of these utterances to the issues of interest in this study.

Interrater Reliability of the Coding

There were two coders, one a Black female and one a white female, who coded the interactions of three randomly selected groups--two white groups and one Black group. The groups selected were from three different schools. Coding was done by viewing the videotape while following along in the transcript of the videotape. (The videotapes were transcribed verbatim by the experimenter and by trained assistants. The rules for transcribing are in Appendix B.)

Before coding these three groups the coders underwent the following training. First they coded one group together, discussing and modifying the coding rules where they were ambiguous or in any way failed to adequately describe the behaviors to be coded. Then they coded two other groups independently, and afterwards they together viewed the videotapes of those two groups, discussed and came to agreement on the coding of utterances they had coded differently, and made a few additional minor revisions in the coding rules. Then they independently coded the three groups that had been chosen for the test of interrater reliability.

Reliability was calculated separately for the coding of the following groups of utterances: (a) Acts; (b) Influence Attempts; (c) Non-Acts; and (d) Non-Acts Excluding Utterances Directed to the Experimenter.

Two types of coder errors were used: (a) errors of omission in which one coder scored an utterance that was not scored by the other coder, and (b) errors of commission in which coders scored the same utterance differently. For each of the groups of utterances, the frequency of both types of errors were summed and divided by the average of the total number of utterances in that group scored by the two coders. Acts

Reliability was calculated for Acts in two ways: the first included errors in coding subcategories of Mitigated Performance Outputs, and errors in scoring Acts vs. Non-Acts; the second did not include subcategory errors and counted only errors in scoring the main categories of Acts, along with errors in scoring Acts vs. non-Acts. Because only the main categories of Acts were included in the data analyses, only the second reliability calculation is reported here.

The reliabilities of Acts coding for the three groups were: 88.1% for the Black group, and 91.4% and 88.8% for the two white groups. Total reliability, based on 786 Acts coded in the three groups, was 88.9%.

Influence Attempts

The reliability of Influence Attempt coding included errors in coding the four categories, Proposals (Successful and Unsuccessful), and Defenses (of Successful and of Unsuccessful Proposals). The

reliabilities of Influence Attempt coding for the three groups were: 89.9% for the Black group, and 82.8% and 88.9% for the two white groups. Total reliability, based on 515 Influence Attempts coded in the three groups, was 88.4%.

Non-Acts

The reliabilities of Non-Acts coding for the three groups were: 93.7% for the Black group, and 93.0% and 97.9% for the two white groups. Total reliability, based on 576 Non-Acts, was 95.0%.

Non-Acts Excluding Utterances Directed to the Experimenter

The reliabilities of this coding for the three groups were: 88.8% for the Black group, and 83.0% and 96.6% for the white groups. Total reliability, based on 268 Non-Acts, excluding Utterances Directed to the Experimenter, was 90.3%.

Dependent Measures

The encoded behaviors described above were used to create three sets of dependent measures. These are defined below.

These variables were scored from the encoded categories and from combinations of categories in the sets of: (1) Acts (variables 1 - 7), (2) Non-Acts Combined with Acts (variables 8 - 9), and (3) Influence Attempts (variables 10 - 21).

In addition, several sets of variables for which hypotheses had not been proposed (variables 22 - 39) were defined from other categories and combinations of the three sets.

Acts Variables

The six categories of acts upon which the first eight dependent measures are based were defined in the definitions of encoded behaviors, above. In order to control for between-group differences in the amount of time it took groups to finish the game, a rate of occurrence per minute, was calculated for each category of Act. In each group, for each category of act, a rate of occurrence for males was calculated by adding the total number of acts of that category for the two males, and dividing that number by the total time it took the group to play the game (rounded to the nearest quarter minute). Similarly, in each group, for each category of

act, a rate of occurrence for females was calculated by adding the total number of acts of that category for the two females, and dividing that number by the total time it took the group to play the game (rounded to the nearest quarter minute) (Lockheed et al, 1983; Lockheed, 1977). Time was calculated as beginning from the moment the host said the last word of the final instructions until the moment the game ended, but excluding the time in between turns. (See Transcribing Rules, Appendix B, for further details on calculation of time.)

In addition to the measures of rates of occurrence, there were two Acts dependent measures that were percentages of all Performance Outputs which were Aggravated in form, and Percentages of all Performance Outputs which were Mitigated in form. The percentages were calculated separately for the males and females in each group.

The following were the dependent measures for which hypotheses were proposed based upon categories of Acts. The letters used in the definitions of these variables are the letters assigned to the Encoded Acts defined above (A - F):

Rates of occurrence, of:

1. All forms of Acts (Total Acts) =

$$(A+B+C+D+E+F)/\text{minutes}$$
2. All Performance Outputs = $(A+B+C)/\text{minutes}$

3. Neutral Performance Outputs = A/minutes

4. Aggravated Performance Outputs = B/minutes

5. Mitigated Performance Outputs = C/minutes

Percents of All Performance Outputs which were:

6. Aggravated = $B/(A+B+C)$

7. Mitigated = $C/(A+B+C)$

Non-Acts Combined with Acts Variables

The following were the dependent measures for which hypotheses were proposed based upon combinations of Non-Act and Act variables. The letters used in the definitions of these variables are the letters assigned to the encoded Acts and Non-Acts defined earlier (A - F, and T, I, U, and X):

Rates of occurrence, of:

8. On-Task Utterances (Total Acts plus Non-Act Task-Related Utterances) =
 $(A+B+C+D+E+F+T)/\text{minutes}$

9. Total Utterances (Total Acts plus Total Non-Acts (except Utterances Directed to the Experimenter)
 $= (A+B+C+D+E+F+T+I+U+X)/\text{minutes}$

The variable On-Task-Utterances was defined as an additional measure (along with Total Acts) of the level of activity in the interaction. A high frequency of occurrence of this variable was believed to reflect greater status. Total Utterances was defined for the same reason; however it included Non-Task-Related

Utterances and the other Non-Act Utterances (except for Utterances Directed to the Experimenter).

Influence Attempts Variables

The categories of Influence Attempts upon which the dependent variables for Influence Attempts were based were defined earlier (labelled A1, A2, A3, B1, B2, B3, C1, C2, C3, D1, D2, and D3). In order to control for between-group differences in the total minutes played, the rate of occurrence per minute, was calculated for each type of Influence Attempt. In each group, for each type of Influence Attempt, a rate of occurrence for males was calculated by adding the total number of Influence Attempts of that type for the two males, and dividing that number by the total time it took the group to play the game (rounded to the nearest quarter minute). Similarly, in each group, for each type of Influence Attempt, a rate of occurrence for females was calculated by adding the total number of Influence Attempts of that type for the two females, and dividing that number by the total time it took the group to play the game (rounded to the nearest quarter minute).

In addition to the measures of rates of occurrence, there were three Influence Attempt dependent measures that were percentages of Influence Attempts which were in each linguistic form, and three Influence Attempt

dependent measures that were percentages of Influence Attempts in each linguistic form which were Successful. The percentages (like the rates of occurrence) were calculated separately for the males and females in each group.

The following were the dependent measures for which hypotheses were proposed based upon the categories of Influence Attempts. The letters used in defining these variables are the letters assigned to the encoded Influence Attempts defined earlier (A1 to D3).

Rates of occurrence of:

10. Successful Influence Attempts =

$$(A1+A2+A3+B1+B2+B3)/\text{minutes}$$
11. Unsuccessful Influence Attempts =

$$(C1+C2+C3+D1+D2+D3)/\text{minutes}$$
12. Total Influence Attempts =

$$(A1+A2+A3+B1+B2+B3+C1+C2+C3+D1+D2+D3)/\text{minutes}$$
13. Neutral Influence Attempts =

$$(A1+B1+C1+D1)/\text{minutes}$$
14. Aggravated Influence Attempts =

$$(A2+B2+C2+D2)/\text{minutes}$$
15. Mitigated Influence Attempts =

$$(A3+B3+C3+D3)/\text{minutes}$$

Percentages of all Influence Attempts which were:

16 Aggravated =

$$(A2+B2+C2+D2)/(A1+A2+A3+B1+B2+B3+C1+C2+C3+D1+D2+D3)$$

17. Mitigated =

$$(A3+B3+C3+D3)/(A1+A2+A3+B1+B2+B3+C1+C2+C3+D1+D2+D3)$$

18. Successful =

$$(A1+A2+A3+B1+B2+B3)/(A1+A2+A3+B1+B2+B3+C1+C2+C3+D1+D2+D3)$$

Percentages of all:

19. Neutral Influence Attempts which were Successful

$$= (A1+B1)/(A1+B1+C1+D1)$$

20. Aggravated Influence Attempts which were

$$\text{Successful} = (A2+B2)/(A2+B2+C2+D2)$$

21. Mitigated Influence Attempts which were

$$\text{Successful} = (A3+B3)/(A3+B3+C3+D3)$$

Predictions and Hypotheses

As stated earlier, the main purpose of this study was to test the expectation that sex may not function as strongly as a diffuse status characteristic among Black children as among white children. It was not expected that in the Black groups sex would not function at all as a diffuse status characteristic, but only that it would function less strongly in the Black groups.

Specifically, it was predicted that:

1. White males would be significantly higher than white females on Acts Variables, Non-Acts Combined with Acts Variables, and on Influence Attempts Variables (Variables 1 - 21), with the exception of Variables 5, 7, 15, and 17. On these four variables only, which were rates of occurrence and percentages of Mitigated Acts and Influence Attempts, it was predicted that white females would be significantly higher than white males.

2. The difference between the Black males and females on Variables 1 - 21 would not be significant.

3. The sex difference in the white groups would not be significantly greater than the sex difference in the Black groups.

The following hypotheses were tested:

Hypothesis 1: White males will be significantly higher than white females on all variables (1 - 21), except variables 5, 7, 15, and 17, which are rates of occurrence and percentages of Acts and Influence Attempts which are Mitigated. On those four variables, white females will be significantly higher than white males.

Hypothesis 2: The difference between the white males and females will be significantly greater than the difference between the Black males and females on all variables (1 - 21).

Additional Dependent Variables for Which

No Hypotheses Were Proposed

Several additional dependent variables were defined from other categories and combinations of categories of Acts, Non-Acts, and Influence Attempts--different from those defined in variables 1 - 21. These were not identified with the main hypotheses of the study.

Additional Acts Variables

The letters used below in the definitions of these variables are the letters assigned to the encoded Acts defined earlier (A to F). These variables were:

Rates of occurrence, of:

- 22. Action Opportunities = $D/\text{minutes}$
- 23. Simple Positive Reactions/Evaluations = $E/\text{minutes}$
- 24. Simple Negative Reactions/Evaluations = $F/\text{minutes}$

Percentages of all Acts (Total Acts) which were:

- 25. Action Opportunities = $D/(A+B+C+D+E+F)$
- 26. Simple Positive Reactions/Evaluations = $E/(A+B+C+D+E+F)$
- 27. Simple Negative Reactions/Evaluations = $F/(A+B+C+D+E+F)$
- 28. Either Simple Positive or Simple Negative Reactions/Evaluations = $(E+F)/(A+B+C+D+E+F)$

Additional Non-Acts Variables

The letters used below in the definitions of these variables are the letters assigned to the encoded Non-Acts defined earlier (T, I, U, X, and Ex). These variables were:

Rates of occurrence, of:

29. Incomplete, Interrupted Utterances = I/minutes

30. Uncodable Utterances = U/minutes

31. Non-Task-Related Utterances = X/minutes

32. Utterances Directed to the Experimenter =
Ex/minutes

Percentages of all Utterances, except Utterances

Directed to the Experimenter, which were:

33. Incomplete, Interrupted Utterances =
 $I / (A+B+C+D+E+F+T+I+U+X)$

34. Uncodable Utterances = $U / (A+B+C+D+E+F+T+I+U+X)$

35. Non-Task-Related Utterances = $X / (A+B+C+D+E+F+T+I+U+X)$

36. Non-Act Utterances = $(T+I+U+X) / (A+B+C+D+E+F+T+I+U+X)$

Percentages of all Utterances (including Utterances

Directed to the Experimenter) which were:

37. Utterances Directed to the Experimenter
 $Ex / (A+B+C+D+E+F+T+I+U+X+Ex)$

Additional Influence Attempts Variables

The letters used below in the definitions of these variables are the letters assigned to the encoded Influence Attempts defined earlier (A1 to D3). These variables were:

Percentages of:

38. All Proposals which were Successful Proposals =

$$(A1+A2+A3)/(A1+A2+A3+C1+C2+C3)$$

39. All Defenses which were Defenses of Successful

$$\text{Proposals} = (B1+B2+B3)/(B1+B2+B3+D1+D2+D3)$$

Design of the Study and Data Analyses

In the present study the data were analyzed as a 2 X 2 (ethnic group x sex) repeated measures analysis of variance. The design of the study is represented in Figure 4.

The unit of analysis, or the subject unit, was the group of four. There were 21 subject units: 10 all-Black groups and 11 all-white groups. For each group, on each dependent variable there were two measures, a male response and a female response. (The male response was the responses of the two males, averaged, and the female response was the response of the two females, averaged.) These were the repeated measures.

Because the group was the subject unit, with a male and a female measure on each group, the within-subjects variable was sex. The between-subjects variable was ethnicity.

The analyses were done for the dependent variables in the major categories--Acts, Non-Acts combined with Acts, and Influence Attempts--and also on the Non-Act categories.

The repeated measures analysis of variance was done using SPSS-X's MANOVA program because that program takes care of the assumption of homogeneity of variance which

can be a problem when using SPSS-X's ANOVA program for a repeated measures analysis of variance.

Variables that were in the form of percentages were analyzed first in their original form, and then transformed, using SPSS-X's arcsine transformation, in an attempt to normalize the distributions.

Many of the variables were in the form of rates of occurrence per minute because it was believed that the number of utterances was strongly correlated with amount of time. However, the possibility was considered that this correlation might be quite different for the various groups, with some groups, perhaps, speaking quickly or more often (in less time), and others speaking more slowly or less often (in more time). Therefore, another set of analyses was done for all of the categories of Acts, Non-Acts Combined with Acts, Influence Attempts, and Non-Acts, controlling for time by using the number of utterances in each category as the dependent variable but entering time into the analyses as a covariate (the time was the total minutes the team played, rounded to the nearest quarter minute).

The ANOVA's done on the main variables (numbers 1 - 21) were done a second time with the sex of the host entered as a factor in order to check that there was no effect for the sex of the host.

CHAPTER 7

RESULTS

The results of the analyses of the dependent variables 1 - 21, for which hypotheses had been generated, are reported first. These results are summarized in Table 2. The three groups of variables are reported in the following order: Acts (variables 1 - 7), Non-Acts Combined with Acts (variables 8 - 9), and Influence Attempts (variables 10 - 21). These are followed by the results (summarized in Table 3) of the additional analyses on variables for which hypotheses had not been generated, which were categories and combinations of categories of Acts, of Non-Acts, and of Influence Attempts.

It should be noted that, as explained earlier, the variables which were measures of frequencies of occurrence of the various categories of Acts, Non-Acts and Influence Attempts were defined as rates per minute of those utterances. This was done in order to control for differences in the amount of time each group spent on the task.

Groups ranged in the amount of time it took them to complete the game from 6.75 minutes to 29.00 minutes. The average time was 13.8 minutes. The Black groups, on average, spent more time on the game than the white

groups. Black groups' times ranged from 9.25 minutes to 29.00 minutes, and their mean time was 16.6 minutes. White groups' times ranged from 6.75 minutes to 21.00 minutes, and their mean time was 11.3 minutes.

The results of the analyses using the number of occurrences of each category with time entered as a covariate were nearly identical to the results of the analyses using rates of occurrence (rates per minute), and so they are not reported here.

It was noted that the number of occurrences of Influence Attempts was partially tied to the number of turns (as opposed to number of minutes), because one component of Influence Attempts, Successful Proposals, was completely tied, by definition, to the number of turns (there was one and only one Successful Proposal in each turn). However, Successful Proposals (and even Total Proposals--including Unsuccessful Proposals) made up only a small portion of all Influence Attempts; most Influence Attempts were Defenses of Proposals. Defenses of Proposals are not directly tied to the number of turns. However, it was decided to do an additional set of ANOVA's for Influence Attempts variables using rates per turn (dividing the number of occurrences of each category by the number of turns the group played the game). The results of the rate-per-turn analyses were essentially identical to the results using rates per

minute, so only the results for rate-per-minute are reported here.

As planned, arcsine transformations were performed on the dependent variables which were in the form of percentages, in an effort to normalize the distributions. The SPSS-X arcsine transformation was used. The results of these analyses were identical to the analyses with the untransformed percentages, therefore they are not presented here.

Also, as planned, the repeated measures analyses of variance on the main dependent variables (1 - 21) were done a second time with the sex of the host entered as a factor in order to check that there was no effect for the sex of the host. There was no main effect for sex of the host. Only a few significant interactions were found, and these were not consistent for any variables. Therefore, these data are not reported here.

Results of Analyses of the Dependent Variables, 1 - 21 Rates of Initiation of Acts Variables 1 - 5

The results of these analyses are presented in Table 4, showing cell means and standard deviations, and in Table 5, showing the repeated measures ANOVA statistics.

Rate of Occurrence of Total Acts (dependent variable 1). For this variable, there was a significant main effect for sex. Males had significantly more Total Acts

per minute than females, across ethnicity, $F(1,19) = 6.98$, $p = .016$ ($M = 11.09$ for males and 9.00 for females). There was no significant interaction between sex and ethnicity. However, white males had significantly more acts than white females ($F(1,19)=8.32$, $p = .009$, white male mean = 11.07 , white female mean = 8.00), while in the Black groups there was no significant difference between males and females. There was no significant ethnicity effect.

Rate of Occurrence of Total Performance Outputs (dependent variable 2). There was no significant ethnicity by sex interaction. There was a significant main effect for sex, with males having significantly more Performance Outputs per minute than females, across ethnicity, $F(1,19) = 12.93$, $p = .002$ (male mean = 8.63 , female mean = 6.15). There was a significant difference between male and female scores in the white groups, but not in the Black groups. For white groups $F(1,19) = 11.86$, $p = .003$, and the means were 8.44 for males and 5.20 for females. For Black groups, the male mean was 8.84 and the female mean was 7.18 , a difference which was not significant ($F = 2.84$, $p = .108$) but was in the same direction as in the white groups. There was no significant effect for ethnicity.

Rate of Occurrence of Neutral Performance Outputs (dependent variable 3). There was no significant

interaction between sex and ethnicity. There was a significant main effect for sex, with males having significantly more Neutral Performance Outputs per minute than females, across ethnicity, $F(1,19) = 21.99$, $p < .001$ ($M = 6.29$ for males, 4.23 for females). Sex differences were also significant for both the white and the Black groups. For the white groups $F(1,19) = 21.21$, $p < .001$ (white male mean = 6.145 , white female mean = 3.40). For the Black groups, $F(1,19) = 4.36$, $p = .051$ ($M = 6.46$ for males, 5.15 for females). There was no significant ethnicity effect.

Rate of Occurrence of Aggravated Performance Outputs (dependent variable 4). No significant interaction or main effects were found for Aggravated Performance Outputs.

Rate of Occurrence of Mitigated Performance Outputs (dependent variable 5). There were no significant interaction or main effects for Mitigated Performance Outputs.

Percentages of Performance Outputs in Aggravated and in Mitigated forms, Variables 6 - 7

The results of these analyses are presented in Table 6, showing cell means and standard deviations, and in Table 7, showing the repeated measures ANOVA statistics.

Percentage of Performance Outputs which were

Aggravated (dependent variable 6). There were no significant interaction or main effects on this variable.

Percentage of Performance Outputs which were Mitigated (dependent variable 7). The main effect for sex was significant; across ethnicity, a significantly higher percentage of females' than males' Performance Outputs was Mitigated $F(1,19) = 8.80, p = .008$ (male mean = 15.92%, female mean = 22.92%). Sex was significant for the white groups but not for the Black groups; a significantly higher percentage of white females' ($M = 27.55\%$) than white males' ($M = 18.91\%$) Performance Outputs was Mitigated $F(1,19) = 7.20, p = .015$. There was also a significant main effect for ethnicity, across sex; a significantly higher percentage of whites' than Blacks' Performance Outputs was Mitigated, $F(1,19) = 5.80, p = .026$ (Black mean = 15.23%, white mean = 23.23%). There was no significant ethnicity by sex interaction.

Rates of Occurrence of Combinations of Acts and Non-Acts, Variables 8 - 9)

The results of these analyses are presented in Table 8, showing cell means and standard deviations, and in Table 9, showing the repeated measures ANOVA statistics.

Rate of Occurrence of On-Task Utterances (Total Acts plus Task-Related Non-Acts per minute) (dependent

variable 8). There was a significant main effect for sex, $F = 7.35$, $p = .014$ (male mean = 12.99, female mean = 10.43). White males had significantly more on-task utterances than did white females, $F = 10.60$, $p = .004$ (white male mean = 13.16, white female mean = 9.046), whereas Black males and females did not differ significantly in On-Task Utterances.

Rate of Occurrence of Total Utterances (Total Acts plus Total Non-Acts, except Utterances Directed to the Experimenter) (dependent variable 9). There was a significant main effect for sex, $F = 5.77$, $p = .027$ (male mean = 14.13, female mean = 11.60). White males had significantly more total utterances than did white females, $F = 9.11$, $p = .007$ (white male mean = 14.24, white female mean = 10.00), whereas in the Black groups males and females were not significantly different.

Rates of Occurrence of Influence Attempts Variables 10 - 15

The results of these analyses are presented in Table 10, showing cell means and standard deviations, and in Table 11, showing the repeated measures ANOVA statistics.

Rate of Occurrence of Successful Influence Attempts (dependent variable 10). On this variable, there was a significant main effect for sex. Males had significantly more Successful Influence Attempts per turn than did

females, across ethnicity, $F(1,19) = 13.68$, $p = .002$ ($M = 4.13$ for males and 2.79 for females). There was no interaction between sex and ethnicity. However, while white males had significantly more Successful Influence Attempts Per Minute than white females ($F(1,19) = 13.57$, $p = .002$, white male mean = 4.51 , white female mean = 2.69), in the Black groups there was no significant difference between males and females. There was no ethnicity effect.

Rate of Occurrence of Unsuccessful Influence Attempts (dependent variable 11). On this variable there was a significant main effect for sex. Males had significantly more Unsuccessful Influence Attempts Per Minute than did females, across ethnicity, $F(1,19) = 9.85$, $p = .005$ ($M = 1.45$ for males and 1.03 for females). There was no interaction between sex and ethnicity. However, while white males had significantly more Successful Influence Attempts Per Minute than white females ($F(1,19) = 7.92$, $p = .011$, white male mean = 1.35 , white female mean = 0.83), in the Black groups there was no significant difference between males and females. There was no ethnicity effect.

Rate of Occurrence of Total Influence Attempts--Successful and Unsuccessful (dependent variable 12). The pattern for this variable was similar to the patterns for the variables of which it was composed--Successful

Influence Attempts and Unsuccessful Influence Attempts Per Minute. The only difference was that the difference between the males and females was significant in the Black groups, as well as in the white groups. For the sex main effect, $F(1,19) = 20.54$, $p < .001$ (male mean = 5.58, female mean = 3.82). In the white groups, $F(1,19) = 19.41$, $p < .001$ (white male mean = 5.85, white female mean = 3.52). In the Black groups, $F(1,19) = 4.25$, $p = .053$ (Black male mean = 5.29, Black female mean = 4.15). There was no significant ethnicity by sex interaction effect, and there was no ethnicity effect.

Rate of Occurrence of Neutral Influence Attempts (dependent variable 13). There was a significant main effect for sex on this variable. Males had significantly more Neutral Influence Attempts per minute than did females, across ethnicity, $F(1,19) = 29.34$, $p < .001$ ($M = 4.00$ for males and 2.40 for females). There was no sex by ethnicity interaction effect. The differences between males and females were significant in the Black groups and in the white groups. For the Black groups $F(1,19) = 6.67$ and $p = .018$ ($M = 3.65$ for males and 2.56 for females). For the white groups $F(1,19) = 26.43$ and $p < .001$ ($M = 4.32$ for males and 2.25 for females). There was no ethnicity effect.

Rate of Occurrence of Aggravated Influence Attempts (dependent variable 14). There were no significant main

effects or interactions effects on this variable.

Rate of Occurrence of Mitigated Influence Attempts (dependent variable 15). There were no significant main effects or interaction effects on this variable.

Percentages of All Influence Attempts which were Aggravated and Percentages which were Mitigated, Variables 16 - 17

The results of these analyses are presented in Table 12, showing cell means and standard deviations, and in Table 13, showing the repeated measures ANOVA statistics.

Percentage of all Influence Attempts which were Aggravated (dependent variable 16). There were no significant interaction or main effects on this variable.

Percentage of all Influence Attempts which were Mitigated (dependent variable 17). There was a significant main effect for sex, $F(1,18) = 9.95$, $p = .005$. A significantly greater percent of females' than males' Influence Attempts were of the Mitigated type ($M = 18.99\%$ for males and 28.33% for females). Sex was significant for the Black groups, $F(1,18) = 6.22$, $p = .023$ ($M = 15.39\%$ for males and 25.85% for females). Sex was not significant for the white groups. There was no sex by ethnicity interaction, and there was no main effect for ethnicity.

Percentages of All Influence Attempts and of Influence Attempts in Each Linguistic Form which were Successful, Variables 18 -21

The results of these analyses are presented in Table 14, showing cell means and standard deviations, and in Table 15, showing the repeated measures ANOVA statistics.

Percentage of all Influence Attempts which were Successful (dependent variable 18). There was a main effect for sex, $F(1,19) = 13.20$, $p = .002$. A significantly greater percent of females' than males' Influence Attempts were Successful. The male mean was 74.67%, and the female mean was 84.97%. Sex was significant for the Black groups, $F(1,19) = 9.46$, $p = .006$, and it closely approached significance for the white groups, $F(1,19) = 4.16$, $p = .056$. For the Black groups $M = 71.22\%$ for males and 82.56% for females; for the white groups $M = 77.80\%$ for males and 84.97% for females. There was no sex by ethnicity interaction, and there was no main effect for ethnicity.

Percentage of all Neutral Influence Attempts which were Successful (dependent variable 19). There were no significant interaction or main effects on this variable.

Percentage of all Aggravated Influence Attempts which were Successful (dependent variable 20). There were no significant interaction or main effects on this variable.

Percentage of all Mitigated Influence Attempts which were Successful (dependent variable 21). There were no significant interaction or main effects on this variable.

Results of Analyses of the Additional Variables:
Categories and Combinations of Categories of Acts,
of Non-Acts, and of Influence Attempts
Rates of Occurrence of Additional Acts Variables 22 - 24

The results of these analyses are presented in Table 16, showing cell means and standard deviations, and in Table 17, showing the repeated measures ANOVA statistics.

Rate of Occurrence of Action Opportunities (variable 22). No significant interaction or main effects were found for this variable.

Rate of Initiation of Simple Positive Reactions/Evaluations (variable 23). There were no significant interaction or main effects for this variable.

Rate of Occurrence of Simple Negative Reactions/Evaluations (variable 24). There were no significant main or interaction effects for this variable.

Percentages of All Acts which were in the Additional Acts Categories, Variables 25 - 28

The results of these analyses are presented in Table

18, showing cell means and standard deviations, and in Table 19, showing the repeated measures ANOVA statistics.

Percentage of all Acts which were Action Opportunities (variable 25). There were no significant interaction or main effects.

Percentage of all Acts which were Simple Positive Reactions/Evaluations (variable 26). There was a significant main effect for sex, with females across ethnicity having a higher percentage of Simple Positive Reactions/Evaluations than males; $F(1,19) = 7.65$, $p = .012$ (male mean = 14.16%, female mean = 22.50%). The sex difference was significant for the white groups ($F(1,19) = 9.90$, $p = .005$) but not for the Black groups. For the white groups, the male mean = 16.58%, and the female mean = 29.34%. There was also a significant main effect for ethnicity; Blacks had a higher percentage on this variable than did whites, $F(1,19) = 10.34$, $p = .005$ (Black mean = 13.24%, white mean = 22.96%). There was no significant ethnicity by sex interaction.

Percentage of all Acts which were Simple Negative Reactions/Evaluations (variable 27). There were no significant main effects for sex or ethnicity, nor was there a significant interaction effect.

Percentage of all Acts which were either Simple Positive, or Simple Negative Reactions/Evaluations

(variable 28). The sex main effect was significant; a significantly higher percentage of females' than males' Acts were in either of these two categories, $F(1,19) = 6.74$, $p = .018$ (male mean = 16.26%, female mean = 24.23%). The sex difference was significant for the white groups, $F(1,19) = 8.02$, $p = .011$, but not for the Black groups. For white groups the male mean = 18.52% and the female mean = 30.29%. There was no significant ethnicity effect, and there was no significant ethnicity by sex interaction on this variable.

Rate of Occurrence and Percentages of Non-Acts, Variables 29 -37

The results of the analyses of rates of occurrence of Non-Acts categories of utterances, variables 29 to 32, are presented in Tables 20 and 21. The results of the analyses of the percentages of all utterances in the Non-Act categories, variables 33 to 37, are presented in Tables 22 and 23, and 24 and 25.

No significant effects were found on the analyses for any of the variables which were rates of occurrence of individual categories of non-Acts: Incomplete, Interrupted Utterances (29), Uncodable Utterances (30), Non-Task-Related Utterances (31), and Utterances Directed to the Experimenter (32).

Of the analyses of Percentages of all Utterances (except Utterances Directed to the Experimenter) which were: Incomplete, Interrupted Utterances (33); Uncodable Utterances (34); Non-Task-Related Utterances (35); and Non-Act Utterances (36) significant results were found only for Incomplete, Interrupted Utterances (33). No significant results were found on the analysis of Percentage of all Utterances (including Utterances Directed to the Experimenter) which were Directed to the Experimenter (37).

Percentage of All Utterances (except Utterances Directed to the Experimenter) which were Incomplete, Interrupted Utterances (33). On this variable there was a significant sex by ethnicity interaction, $F(1,19) = 4.23$, $p = .054$. The mean percentages were: white males = 1.31%, white females = 3.22%; Black males = 1.89%, Black females = 1.97%. Sex was significant for the white groups $F(1,19) = 9.65$ $p = .006$, but not for the Black groups. The sex main effect was significant, $F(1,19) = 4.98$ and $p = .038$; the male mean was 1.58%, and the female mean was 2.63%. (See Tables 22 and 23.)

Additional Influence Attempts Variables, 38 - 39

The results of these analyses are presented in Table 26, showing cell means and standard deviations, and in Table 27, showing the repeated measures ANOVA statistics.

Percentage of all Proposals which were Successful
(38). There were no significant interaction or main effects on this variable.

Percentage of all Defenses which were Defenses of Successful Proposals (39). There was a significant main effect for sex, $F(,19) = 25.76$, $p < .001$. A significantly higher percentage of females' than males' defenses were of successful proposals ($M = 81.37\%$ for males and 94.73% for females). Sex was significant for both the Black and the white groups. For the Black groups $F(1,19) = 20.72$ and $p < .001$ (the mean = 77.78% for males and 95.38% for females). For the white groups $F(1,19) = 6.66$ and $p = .018$ (the mean = 84.63% for males and 94.14% for females).

CHAPTER 8

DISCUSSION

In status expectations theory, as discussed earlier, high status actors are assumed to have higher competence; this creates "performance expectations" for all the actors, which results in the emergence of a "power and prestige order" favoring those assumed to be more competent. Two of the main indicators of high status are being more active and being more influential in the task activity. Level of activity is measured by amount of task-related speech (and amount of Acts, in particular), and level of Influence is measured by amount of successful attempts to influence the group's decisions.

The main purpose of the present study was to test the expectation that sex would not function as strongly as a diffuse status characteristic among the Black as among the white children. The main Acts variables and the main Influence Attempt variables operationalized the two main indicators of status, level of activity and level of influence.

The second purpose of this study was to test the expectation that (a) in the white groups, Mitigated speech would be associated more with females' than with males' speech and Aggravated speech would be associated more with males' than with females' speech, while (b)

there would be greater equality on these two measures between males and females in the Black groups.

The overall findings of the study offer support for the main expectation that sex would not function as strongly as a diffuse status characteristic among the Black as among the white children. The findings present a clear picture of much greater equality of status between the Black boys and girls than between the white boys and girls in these interactions. The findings in relation to the second purpose of the study are less clear, but there is some evidence that the linguistic patterns differed in the expected directions.

These expectations were tested in two ways. The strongest test was the test of Hypothesis 2, which stated that the difference between the white males and females would be significantly greater than the difference between the Black males and females on the dependent measures. The results of the data analyses failed to support this hypothesis; with only one exception (discussed below) there were no significant interaction effects on any of the measures of status (activity levels and influence levels), or of linguistic form (Mitigated vs. Aggravated speech).

The results of the test of Hypothesis 2 were consistent with the expectation, stated earlier, that sex would function less strongly as a diffuse status

characteristic in the Black than in the white groups, but not that it would not function at all in the Black groups.

The expectation that sex would not function as strongly as a diffuse status characteristic among the Black as among the white children had also been expressed in another set of predictions:

First, it had been predicted that in the white groups males would be significantly higher than females on the variables believed to reflect high status (measures of level of activity and level of influence) and on measures of Aggravated speech. In contrast, white females were expected to be higher than white males on measures of Mitigated speech. This prediction was tested by Hypothesis 1. Second, it had been predicted that in the Black groups males and females would not differ significantly on any dependent measures.

The results of the analyses relating to these predictions are discussed below, beginning first with the results of the analyses related to the first main question of the study--the test of whether sex functioned as a diffuse status characteristic in the white and Black groups. This is followed by a discussion of the results of the analyses related to the second main question of the study, the relationship between the use of Mitigated vs. Aggravated speech and sex and ethnicity.

Sex as a Diffuse Status Characteristic

Despite the fact that, as noted above, the data did not support the hypothesis of sex by ethnicity interactions, there was strong support for the expectation that there would be significant differences between the white males and females, but not between the Black males and females, on the variables operationalizing level of activity and level of influence.

Level of Activity

The results of the analyses for Blacks and for whites on all of the larger measures of rates of occurrence of Acts (those not broken down by speech type) were consistent with expectations. White males had significantly higher rates of Total Acts and Total Performance Outputs (variables 1 and 2, respectively) than did white females, while for the Black groups the differences, although in the same direction, were not significant. The same pattern was also found on two other variables which measured overall rates of activity, Total On-Task Utterances and Total Utterances (variables 8 and 9, respectively); the white males had significantly higher rates of each of these than did white females, while the Black males and females did not differ significantly.

The results of the analyses on Simple Positive Reactions/Evaluations and on the combination of Simple Positive and Simple Negative Reactions/Evaluations provided additional support for the expectation that white females were less active in the interaction than were white males and that Black females and males were more equal in their level of activity. As discussed earlier, it was believed that having a high percentage of all Acts in these categories of brief, unelaborated utterances indicated a less active role in the interaction. The significant sex difference in the white groups was strong evidence of the sex difference in activity level. Twenty-nine percent of all white females' Acts were Simple Positive Reactions/Evaluations, and 30% were either Simple Positive or Simple Negative Reactions/Evaluations. The percentages were much lower for white males. The percentages were also much lower for both Black males and females, and Black males and females did not differ significantly on this measure.

The meaning of high or low percentages of Acts being Simple Negative Reactions/Evaluations was, as discussed above, more difficult to discern, and, in any event, there were no significant results on these analyses.

Level of Influence

The data also followed the expected pattern on the measure of rate of occurrence of all Successful Influence Attempts (not broken down by speech type). White males had a significantly higher rate of Successful Influence Attempts (variable 10) than did white females, while for the Black groups the difference, though in the same direction, was not significant. Thus there was clear evidence that, as expected, there was greater inequality of influence (favoring males) in the white groups than there was in the Black groups (although there was a trend favoring males in the Black groups).

Not only did white males have a significantly higher rate of occurrence of Successful Influence Attempts (variable 10) than did white females, but they also, as expected, had a significantly higher rate of Unsuccessful Influence Attempts (variable 11). The trend was in the same direction for the Black groups, but the sex difference was not significant. While a high rate of occurrence of Unsuccessful Influence Attempts apparently does not reflect a high level of influence, it may be viewed as an additional indicator of active participation in the task. Thus, these results are consistent with the findings on the main Acts variables which showed that white males were more active than white females, whereas

in the Black groups male and female activity levels were more equal.

For Total Influence Attempts, as expected, white males had significantly more of these per minute than white females. However, unexpectedly, the sex difference was also significant (in the same direction) in the Black groups.

The results of the analyses of Incomplete, Interrupted Utterances were also of interest in terms of the issue of level of influence. As discussed earlier, it was believed that the more often an actor's utterances were interrupted and not completed, and the greater the percentage these were of all utterances, the less influential and therefore the lower in status was that actor. The finding of a significant ethnicity by sex interaction on Percentage of All Utterances which were Incomplete, Interrupted Utterances was therefore strong additional support for the expectation that white females were less influential than white males, and that Black males and females were more equal in influence. (This was especially notable because it was the only variable on which there was a significant interaction effect.) In the white groups, a significantly higher percentage of females' than of males' utterances were Incomplete, Interrupted Utterances, whereas Black females had a lower

percentage of these utterances than their male counterparts.

Summary of Discussion on Levels of Activity and Influence

In sum, the results of the analyses on (1) the main Acts and Influence variables, (2) Simple Positive and Simple Negative Reactions Evaluations, and (3) Incomplete Interrupted Utterances clearly demonstrated that, as expected, in the white groups males were significantly more active and influential than females, whereas in the Black groups males and females did not differ significantly in level of activity and level of influence. In status expectation theory terms, these findings clearly support the .is that sex functioned as a diffuse status characteristic in the white groups but functioned less strongly as a diffuse status characteristic in the Black groups.

Relationship Between Linguistic Form of Speech and Sex and Ethnicity

The second main purpose of this study was to test expectations regarding differences between the Black and the white groups in the relative frequency of occurrence among males and females of Aggravated and Mitigated speech. It was expected that white females would have more Mitigated speech, and less Aggravated speech, than white males--measured by rates of occurrence and by the

percentages of all Performance Outputs and of all Influence Attempts which were in each of these speech forms. In contrast, it was expected that Black males and females would not differ significantly in their use of these speech forms. As mentioned earlier, when this expectation was tested in the form of the hypothesis of an ethnicity by sex interaction (Hypothesis 2), the results were not significant. However, there was some support for the expectations of greater sex differences in the white than in the Black groups on rates and percentages of Acts and Influence Attempts in each of the two linguistic forms.

Hypothesis 1 stated that white females would have significantly more Mitigated and significantly less Aggravated Performance Outputs and significantly more Mitigated and significantly less Aggravated Influence Attempts than their male counterparts, both in rates of occurrence and percentages of all Performance Outputs and Influence Attempts which were in each of these forms. As noted earlier, it was also expected that for comparisons of Black boys and girls on these four variables, no significant differences would be found, providing some support for the expectation that Black males and females were not significantly different on these variables.

Mitigated Linguistic Form

As expected, a significantly higher percentage of white females' than of white males' Performance Outputs were Mitigated. For Influence Attempts, the results were in the same direction but did not reach significance. Unexpectedly, however, white females did not have higher rates of occurrence of Mitigated Performance Outputs or Mitigated Influence Attempts than did their male counterparts; the numbers were nearly identical for white males and females on Mitigated Performance Outputs, and white females had slightly less Mitigated Influence Attempts than white males. These seemingly contradictory results can be explained by the fact that the overall rate of response, including the rate of total Performance Outputs, was significantly lower for white females than for white males. White females' higher percentages of Mitigated Performance Outputs (nearly one third were Mitigated) and of Mitigated Influence Attempts (more than one quarter were Mitigated) were not high enough to compensate for their lower overall rate of response.

In the Black groups there was one unexpected result. Black females had a significantly higher percentage of Mitigated Influence Attempts than their male counterparts. The other results were consistent with expectations; there were no significant sex differences in rates per minute of Mitigated Performance Outputs or

Influence Attempts or in percentages of Performance Outputs which were Mitigated.

The fact that Blacks, across sex, had a lower percentage of Mitigated Performance Outputs than whites was unexpected.

Aggravated Linguistic Form

No significant sex differences were found in either the white or the Black groups in their rates and percentages of Aggravated Performance Outputs or of Aggravated Influence Attempts. For the white groups, this result was unexpected. It might be explained by the low rate of occurrence (in all sex and ethnicity groups) of Aggravated Performance Outputs and Aggravated Influence Attempts, which made it difficult to achieve significant effects despite the fact that white males had nearly three times (275% of) white females' rate of occurrence of Aggravated Performance Outputs and nearly three times (290% of) white females' rate of Aggravated Influence Attempts. The differences between the Black males and females were lower: Black males had less than 50% more than (145% of) Black females' rate of Aggravated Performance Outputs and only about 70% more than (170% of) Black females' rate of Aggravated Influence Attempts. (See Tables 4 and 11.)

Taken together, the results of the analyses on rates of occurrence and percentages of Mitigated and Aggravated

Performance Outputs were consistent with the expectation that the white females' speech would be characterized by high levels of Mitigated speech and low levels of Aggravated speech, relative to their male counterparts, while Black males and females' patterns would be relatively more equal.

Neutral Linguistic Form

On the analyses of rates of occurrence of Neutral Performance Outputs, as expected, white males had significantly more of these utterances than did white females. However, unexpectedly, in the Black groups males also had significantly more of these utterances than did females.

Sex Differences

On every variable for which there was a significant sex effect either for Blacks, for whites, or for both, there was also a significant effect for sex across ethnicity (a main effect for sex). On all the variables on which higher rates and percentages were believed to reflect higher status, there were higher rates and percentages for males than for females, across ethnicity.

With only one exception, Percentage of all Influence Attempts which were Successful (see below), the only variables on which females were higher than males were the variables which were believed to reflect lower status

or which were the kinds of speech that has been associated in previous studies with white females. These were: Percentage of all Performance Outputs which were Mitigated; Percentage of all Influence Attempts which were Mitigated; Percentage of all Acts which were Simple Positive Reactions/Evaluations; Percentage of all Acts which were either Simple Positive or Simple Negative Reactions/Evaluations; and Percentage of all Utterances which were Incomplete, Interrupted Utterances.

These sex differences across ethnicity, and the failure of the data to support the strongest form of the hypothesis that sex did not function as strongly as a diffuse status characteristic among Blacks as among whites--the hypothesis of an interaction effect--were not completely unanticipated. As has been stated, it was not expected that sex would not function as a diffuse status characteristic among the Black subjects, but only that it would function less strongly among the Black subjects than among the white subjects. Taken together, the results suggest that this was the case; sex seems to have functioned as a diffuse status characteristic in the Black groups, but not as strongly as in the white groups.

In other words, although there was greater sex equality in the Black groups than in the white groups, Black girls were still not interacting as equals with their male counterparts.

Discussion of Possible Explanations of Differences
in Rate of Success of Influence Attempts

The results of the analysis of Percentage of all Influence Attempts which were Successful (variable 18) were unexpected, and at first appear to contradict the results for rate of occurrence of Successful Influence Attempts (variable 10). It had been hypothesized that in the white groups, a higher percentage of males' than of females' Influence Attempts would be successful, because a high percentage of success was assumed to be an indicator of high status. However, the analysis revealed that in both the Black and the white groups, a higher percentage of females' than of males' Influence Attempts were successful. The difference was significant in the Black groups, and in the white groups closely approached significance ($p = .056$).

One possible explanation for these results is that the linguistic form in which females expressed Influence Attempts made them more likely to be successful. However, the data at least indirectly suggest that linguistic form did not account for the higher percentage of females' Influence Attempts being successful. The one linguistic form of Influence Attempt on which females had a higher percentage than males was Mitigated Influence Attempts, and Mitigated Influence Attempts were the least

likely of the three linguistic forms to be successful (see results for variables 19, 20, and 21).

Other possible explanations are suggested by the analyses of the two separate components of Influence Attempts, Proposals, and Defenses of Proposals. A (non-significantly) higher percentage of females' than of males' Defenses were Defenses of Successful Proposals (variable 39), across ethnicity and for both Black males and females and white males and females. In contrast, a slightly (non-significantly) higher percentage of males' than of females' Proposals were Defenses of Successful Proposals (variable 38), across ethnicity and for both Black males and females and white males and females. That is, it was only on the Defenses component of Influence Attempts that females had higher percentages of success than males. The great majority (about 75%) of Influence Attempts (across sex and ethnicity) were Defenses of Proposals. Therefore, the high percentage of females' Defenses which were Defenses of Successful Proposals apparently accounted for the high percentage of Influence Attempts which were successful.

The question still remains as to why such a high percentage of females' Defenses were Defenses of Successful Proposals. An interpretation that females' Defenses were influential simply because they were made by females would be inconsistent with all the other

evidence found here which indicates that females did not have greater influence than males. It also seems clear that linguistic form can not account for this because, as discussed above, females used more of the linguistic form (Mitigated) that was least influential (Mitigated speech). Another possible explanation, which would be consistent with females having lower status in the interaction, is that females had to be more persistent--offer more defenses--in order to get their proposals accepted. Still another possibility is that females tended to offer their Defenses of Proposals after the Proposal had already been defended by another actor and was thus already more likely to be successful.

These, and other, possible explanations could not be evaluated with only the analyses done in this study. Follow-up studies of these same videotaped interactions might begin to evaluate these alternative explanations by (a) looking at the contexts within the interactions in which males and females expressed and defended their ideas, and achieved success; (b) statistically analyzing the relationship between Mitigated, Aggravated and Neutral linguistic form and the rate of success of Influence Attempts; and (c) examining other linguistic or sociolinguistic aspects of the speech which previous studies have found to be associated with influence, such

as those suggested in Wilkinson's model of the effective speaker (Wilkinson, 1982a, 1982b; Wilkinson et al, 1985; Wilkinson & Marrett, 1985).

It should be noted that the question of the relationship between subjects' status and the linguistic form of their speech, and between the linguistic form of the speech and how influential it is are questions that fall outside of the status expectations paradigm. Status expectations theory makes no predictions that the more direct, unmitigated, or aggravated speech a subject uses, the more influential he or she will be, or that the more mitigated speech a subject uses the less influential he or she will be. Follow-up studies, as suggested above, could test these assumptions and predictions.

Limitations of the Study

Throughout this paper, the social interaction patterns (including sociolinguistic patterns) common to females in mixed-sex social interactions have been discussed only in terms of evidence of their negative relationship to influence, status, and effectiveness in social interactions. This study did not examine ways in which these behaviors may be associated with positive social and cognitive, or learning, outcomes. However, there is evidence, for example, from both Piagetian and Vygotskian peer research that suggests that for positive

cognitive and learning outcomes to occur from peer interaction, "a crucial factor is the extent to which partners enter into each other's frame of reference and attempt to arrive jointly at solutions to problems" (Tudge & Rogoff, 1989, p. 29). It is possible that this may be enhanced by mitigated linguistic forms which express consideration for the listener's point of view.

Another limitation of this study which is common to status expectations research is that the existence of status expectations (that is expectations that exist before the interaction) were not directly tested. There was no actual measure "of the subjects' self-other expectations of performance and/or their actual proneness to gender stereotyping" (Dion, 1985, p. 328). An additional limitation is that by using subjects who knew one another the study violated one of the scope conditions of the theory. However, attempts were made to adjust for this violation by equalizing status as much as possible through the subject selection and grouping procedures described earlier. These adjustments had been used in earlier status expectations research (see Cohen, 1982).

A further limitation is that the effort to match the Black and white groups on two demographic characteristics--whether their mothers worked outside the home, and whether they lived in single- or two-parent

families--was only partly successful. The effort was made because of research which suggested that greater sex equality in social roles and child rearing values and practices among Blacks may be partially a result of Black women's working outside the home. A future study might compare groups of children from homes where both parents worked outside the home, homes where only the father worked outside the home, and single-parent (single-working-mother) homes to see whether children whose mother worked outside the home evidenced more equal-status interactions than children from homes where only the father worked. (The occupational status of the mothers' and fathers' jobs could be equalized as well.)

Significance and Educational Implications of the Study

One unique and significant feature of this study is that it is one of very few social interaction studies which has held socioeconomic status and achievement constant in a comparison of Black and white children.

Most importantly, the present study was a significant extension of status expectations research, as it was the first study which tested the functioning of sex as a diffuse status characteristic among Black males and females. As noted earlier, within the status expectations paradigm, there have been no previous studies comparing Black and white children's same-

ethnicity mixed-sex interactions. Previous studies of the functioning of sex as a diffuse status characteristic have used white subjects almost exclusively; when Black subjects have been used it has been in studies of ethnicity (not sex) as a diffuse status characteristic in mixed-ethnicity interactions.

Status expectations research is not unique in having failed to separately examine Black children's sex-related interaction patterns. As discussed earlier, there has been almost no research that has looked at Black children's sex-related social interaction patterns, or at how these may differ from those of white children. Given this large gap in the literature, the results of this study would be of interest even if no differences had been found between Blacks and whites.

In fact, as noted, an important similarity was found here between the Black and the white groups, even though there was clearly greater sex equality in the Black groups. The Black and white groups were similar in that, neither the Black girls nor the white girls interacted equally with their male counterparts. Thus, an important implication of this study is that the popular perception (at least in the white culture) of the "dominant Black female" misrepresents the character of Black male-female interactions, and that, contrary to the logic of that perception, concerns about gender equity in education,

and research and interventions designed to enhance equity, are of value for Black as well as for white females.

On the other hand, the clear differences found between the sex-related social interaction patterns of Black and white children have a number of important educational implications which merit attention.

First, these differences may affect the interaction processes in mixed-ethnicity, mixed-sex cooperative classroom groups. In general, as Webb (Webb & Kenderski, 1985; Webb, in press) and others (e.g. Slavin, 1983, Bossert, 1988) have pointed out, few studies of cooperative groups have focused on the interaction processes occurring within the groups and on how those interaction processes affect cognitive, social and affective outcomes. In particular, the literature on mixed-ethnicity cooperative learning interactions has not taken into account the possibility that within-ethnicity sex differences may impact upon cross-ethnicity mixed-sex interactions and their outcomes. The findings reported here suggest that Black and white children may bring to these interactions different expectations about males' and females' competence (a status expectation) and, in general, different expectations about males' and females' social behavior. How the participants may perceive, interpret, and respond to these differences, and possible

effects on social, cognitive, and affective processes and outcomes of cooperative classroom interactions are issues which remain to be explored.

One future study might look at mixed-ethnicity, mixed-sex interactions either on the present task or in a classroom problem-solving peer interaction, exploring how the patterns found here might be expressed or modified. In order to distinguish the effects of ethnicity and sex, subjects could first be observed in same-ethnicity and same-sex groups so that their levels of activity and influence in those interactions could be compared to their levels in the mixed-ethnicity, mixed-sex interactions. Specific hypotheses could also be tested by forming and comparing mixed-sex, mixed-ethnicity groups with different planned configurations of high- and low-activity-level and high- and low-influence-level subjects (based on their behavior in same-sex and same-ethnicity interactions).

The findings of the present study also suggest the need to examine further the interaction processes within Black cooperative group activities in the classroom, and how these may differ from those in white cooperative groups. Sadker, Sadker and Klein, in a review of gender issues in education (1991), citing Peterson and Fennema (1985), point out that although competitive interactions may be more helpful to male academic achievement than to

female academic achievement, and "cognitive gain for girls was negatively related to the frequency of competitive interactions and positively related to the frequency of opportunities for individualized or cooperative learning...not all studies show that cooperative learning is a positive instructional strategy for girls [emphasis added]" (p. 305). They report that negative effects of cooperative learning on girls have been found to be related to differing friendship and communication patterns between males and females, in which males dominate. Status expectations researchers have also demonstrated the disadvantages females frequently experience in these interactions, but they emphasize the detrimental impact of low status expectations for females (e.g., Lockheed, 1985a, 1985b, Cohen, 1984). Thus, the findings here of more equal status interactions in Black than in white groups suggest that mixed-sex cooperative learning may have more positive outcomes for Black girls than for white girls.

Status expectations researchers have experimented with methods of modifying the expectations held by both high- and low-status participants. In experimental studies, including studies of sex as a status characteristic, they have successfully modified "the part that initial status differentiation among group members plays in determining the distribution of components of

the observable power and prestige order to these members" (Lockheed and Hall, 1976, p. 120). See Lockheed and Hall (1976, p. 121) for a brief summary of some of these experimental treatments.

Treatments to equalize status among groups members (including, for example, different ethnic and language groups, high- and low-achieving students, and boys and girls) have also been successfully carried out in classroom studies by Cohen and her colleagues (e.g., Cohen, 1986; Cohen, 1990; Cohen & DeAvila, 1983; Cohen, Lotan, & Catanzarite, 1986). There are many necessary components of these successful treatments, but the two main aspects can be summarized as "multiple-ability treatment" and "assigning competence to low-status students".

The multiple-ability treatment "is a straightforward statement by the teacher, explaining to the students that there are multiple abilities needed for the performance of each task; while no one can possibly be good at every ability, everyone is going to be good at some of the abilities" (Lotan, & Benton, J., 1990, p. 58). Some of the abilities which the teacher discusses with the students are: "reasoning, observing carefully, mechanical inventiveness, asking key questions, being supportive or helpful to others, explaining clearly...recording data accurately...thinking up and trying new ways to solve

task problems...being an intuitive thinker, working persistently...and using ideas from other learning center experiences" (Lotan, R. A. & Benton, J., 1990, p. 58). Essential to the multiple-ability treatment is that the learning tasks must in fact be multifaceted, multi-level, complex tasks which in fact do require multiple abilities. Cohen and her colleagues have developed and implemented curricula in a number of content areas designed to meet these requirements (see, for example, Cohen & DeAvila, 1983; and Cohen and Lotan, 1987).

In the assigning-competence treatment, teachers are trained to assign competence to students exhibiting low-status behavior. Teachers "look for incidents where low-status students make valuable contributions to the group....This process includes identifying, specifically and publicly, the particular skill on which the child has done well" (p. 60).

Thus, the teacher's trained ability to detect low-status behaviors is an important component of this intervention. The implications of the results of the present study for training teachers in these methods merit some exploration. For example: The conclusion of the present study was that Black girls--while more equal in status to Black boys than were white girls to white boys--were not fully equal-status participants with the Black boys. However, it is possible that because of

their relatively more active and influential behavior (relative to their white female counterparts) teachers may perceive Black girls as not needing "assigning-competence" treatments and may miss more subtle signs of status inequality needing treatment in Black groups.

While speculative, this possibility would be consistent with research which has found that Black females may suffer negative consequences from being perceived as socially active and competent (Grant, 1984). This perception may be partly caused by teachers' observations of what the present study suggests may be their relatively more active, influential behavior in peer interactions. In her ethnographic study of six desegregated elementary-school classrooms, Grant (1984) found that teachers, especially white teachers, saw Black girls as socially mature and competent but not cognitively mature, and some teachers even "describe[d] a precocious social maturity which they viewed as detrimental to academic performance" (p. 102).

In addition, while research has found that both male and female minority group students receive less teacher attention than majority group students (Sadker, Sadker & Klein, 1991), Black females in desegregated classes are especially socially isolated, receiving less teacher and peer attention (Patchen, 1982; Schofield, 1982) and having less social power (Cohen, Lockheed, & Lohman,

1976) than Black males or white males and females. Also, Hare and Castenell (1981) found that Black girls saw themselves as less powerful with teachers and peers than did Black males, even though they usually have higher levels of academic performance in desegregated schools than Black males. Hare and Castenell also found that Black female fourth-graders in desegregated classrooms had lower estimations of their academic skills than did Black males, despite their actually higher performances.

Thus, the research just reviewed suggests that the greater equality found in the Black groups in the present study may not necessarily be associated with the positive social and academic outcomes in the classroom which have generally been associated with equal status interactions.

In sum, the findings of the present study and the research discussed in relation to them suggest that the picture regarding status and its outcomes for Black girls in the classroom is a complex one, and that, like other aspects of Black females' educational experience (Hare, 1985; Hare & Castenell, 1981), it cannot be simply understood, or extrapolated, from research on females or research on Blacks. The specific and general suggestions that have been offered here for future research are only a small part of the broad research program that is needed to begin to fill in the outlines of that picture.

Notes

1 The term "sex differences" has come to be used in much of the psychological literature to refer to differences that are believed to be biologically caused, while "gender differences" is usually used for differences believed to be environmentally caused (see Macaulay, 1985). The use in this writing of the term "sex differences" is not meant to imply causality, but rather follows the usage suggested by Unger (1979) and Deaux (1985), and also cited in Eagly (1987); that is "sex refers to the grouping of humans into two categories--females and males. This grouping is based on biological differences between the two categories of people and is culturally elaborated in all societies" (Eagly, 1987, p. 5).

2 The term "Black" is used in this paper to refer to the descendants of the slaves originally brought to the United States from Western Africa and whose culture has continued to develop in the United States in the nearly four hundred years since then. It is not meant to include those other peoples--who are also sometimes referred to as "Blacks"-- who are not United States born or whose immediate descendants came to the United States from other countries (such as Caribbean countries or modern African countries). Clarification of to which

ethnic group is being referred here is important because the issue of ethnicity-related differences is important to the present research questions.

With the growth of the non-United States born "Black" population in the last twenty years, it is commonly preferred in the sociological, anthropological, and historical literature to refer to those "Blacks" who are the descendants of slaves in the United States as "African Americans"--as their direct place of origin is Africa--and to refer to other groups as "Haitian-Americans," "Jamaican-Americans," (as "Italian Americans," "Irish Americans" etc.), based upon their direct place of origin. However, since the term "African-American" is not standard in the psychological literature, the APA's accepted term "Black" is used here, with the clarification that it is meant to be understood as described above.

3 A detailed review of different methods of meta-analysis as they relate to studies of sex differences in social behavior is provided by Eagly (1987).

4 Because the person who initially suggests the path which is ultimately taken is often not the person who defends that path most strongly, a limitation of the score for successful proposing is that it may give unwarranted high influence credit to the single act of initial suggestion (Lockheed, 1977, p. 160).

Table 1

Percent Female, Ranks 1 - 4, in Task-Oriented Verbal
Activity in Black and White Four-Person Mixed-Sex Groups
of Junior High School Students

<u>Group Type</u>	<u>Rank</u>			
	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>
Black groups (6 groups)	50%	14%	70%	66%
White groups (8 groups)	12%	12%	100%	75%

Note. These data were not reported in any published article. They are from a personal communication (M. Lockheed, personal communication, May 11, 1988).

Table 2

Summary of Results of Repeated Measures Analyses of Variance on the Main Acts Variables (1 - 7), Non-Acts Combined with Acts (Variables 8 - 9), and the Main Influence Attempts Variables (10 - 21)

Variables	Significant Effects				Sign. Higher Group
	Sex	Sex	Sex	Eth	
	M.E.	Bl	Wh	M.E.	
<u>Rate of Occurrence of:</u>					
1. Total Acts	X	--	X	--	Males
2. Total Perf. Outputs	X	--	X	--	Males
3. Neutral Perf. Outputs	X	X	X	--	Males
4. Aggravated Perf. Outputs	--	--	--	--	--
5. Mitigated Perf. Outputs	--	--	--	--	--
<u>Percentage of all Performance</u>					
<u>Outputs which were:</u>					
6. Aggravated	--	--	--	--	--
7. Mitigated	X	--	X	X	Females Whites
<u>Rate of Occurrence of:</u>					
8. On-Task Utterances	X	--	X	--	Males
9. Total Utterances	X	--	X	--	Males
(table continues)					

(table continues)

Variables	Significant Effects				Sign. Higher Group
	Sex	Sex	Sex	Eth	
	M.E.	Bl	Wh	M.E.	
<u>Rate of Occurrence:</u>					
10. Successful Inf. Att.	X	--	X	--	Males
11. Unsuccessful Inf. Att.	X	--	X	--	Males
12. Total Inf. Att.	X	X	X	--	Males
13. Neutral Inf. Att.	X	X	X	--	Males
14. Aggravated Inf. Att.	--	--	--	--	--
15. Mitigated Inf. Att.	--	--	--	--	--
<u>Percentage of all Influence</u>					
<u>Attempts which were:</u>					
16. Aggravated	--	--	--	--	--
17. Mitigated	X	X	--	--	Females
18. Successful	X	X	--	--	Females
<u>19. Percentage of all Neutral</u>					
<u>Inf. Att. which were</u>					
Successful	--	--	--	--	--
<u>20. Percentage of all</u>					
<u>Aggravated Inf. Att. which</u>					
were Successful	--	--	--	--	--

(table continues)

Variables	Significant				
	Effects				
	Sex	Sex	Sex	Eth	Sign. Higher
	M.E.	Bl	Wh	M.E.	Group
21. Percentage of all Mitigated Inf. Att. which were Successful	--	--	--	--	--

Note. An "X" indicates that there was a significant effect at $p \leq .05$. A dash (--) indicates that there was no significant effect. Sex M. E. = Sex Main Effect; Bl = Black groups; Wh = White groups; Perf. Outputs = Performance Outputs; Inf. Att. = Influence Attempts.

Table 3

Summary of Results of Repeated Measures Analyses of Variance on the Variables Not Identified with the Main Hypotheses (for which Hypotheses Had Not Been Generated) (Variables 22 - 39)

Variables	Significant Effects				
	Sex	Sex	Sex	Eth	Sign. Higher
	M.E.	Bl	Wh	M.E.	Group
<u>Rate of Occurrence of:</u>					
22. Action Opportunities	--	--	--	--	--
23. Simple Positive Reactions/Evaluations	--	--	--	--	--
24. Simple Negative Reactions/Evaluations	--	--	--	--	--
<u>Percentage of All Acts which were:</u>					
25. Action Opportunities	--	--	--	--	--
26. Simple Positive Reactions/Evaluations	X	--	X	X	Females Whites
27. Simple Negative Reactions/Evaluations	--	--	--	--	--

(table continues)

Variables	Significant				Sign. Higher Group
	Effects				
	Sex M.E.	Sex Bl	Sex Wh	Eth M.E.	
<u>Percentage of all Acts</u>					
<u>which were:</u>					
28. Either Simple Positive or Simple Negative Reactions/Evaluations	X	--	X	--	Females
<u>Rate of Occurrence of:</u>					
29. Incomplete, Interrupted Utt.	--	--	--	--	--
30. Uncodable Utt.	--	--	--	--	--
31. Non-Task-Related Utt.	--	--	--	--	--
32. Utt. Directed to the Exp.	--	--	--	--	--
<u>Percentage of all Utterances</u>					
<u>(except Utt. Directed to the</u>					
<u>Experimenter) which were:</u>					
33. Incomplete, Interrupted ^a	X	--	X	--	Females
34. Uncodable	--	--	--	--	--
35. Non-Task-Related	--	--	--	--	--
36. Non-Acts	--	--	--	--	--

(table continues)

Variables	Significant				
	Effects				Sign. Higher
	Sex	Sex	Sex	Eth	
	M.E.	Bl	Wh	M.E.	Group
37. Percentage of all Utt. which were Directed to the Exp.	--	--	--	--	--
38. Percentage of all Proposals which were Successful	--	--	--	--	--
39. Percentage of all Defenses which were Defenses of Successful Proposals	X	X	X	--	Females

Note. An "X" indicates that there was a significant effect at $p \leq .05$. A dash (--) indicates that there was no significant effect. Sex M. E. = Sex Main Effect; Bl = Black groups; Wh = White groups; Utt. = Utterances; Exp. = Experimenter.

^a There was also a significant Ethnicity by Sex interaction effect on this variable.

Table 4

Cell Means (and Standard Deviations) for Rates of Occurrence of
Acts Variables 1 - 5, by Sex and Ethnicity

Variable	Ethnicity	Sex		Total
		Male	Female	
1. Total Acts	Black	11.10 (5.64)	10.10 (4.32)	10.60
	White	11.07 (3.19)	8.00 (3.73)	9.54
	Total	11.09 (4.41)	9.00 (4.06)	
2. Total P. O.	Black	8.84 (4.10)	7.18 (2.76)	8.01
	White	8.44 (2.96)	5.20 (2.88)	6.82
	Total	8.63 (3.46)	6.15 (2.93)	
3. Neutral P. O.	Black	6.46 (2.42)	5.15 (2.18)	5.80
	White	6.15 (2.86)	3.40 (2.19)	4.78
	Total	6.29 (2.60)	4.23 (2.31)	

(table continues)

Variable	Ethnicity	Sex		Total
		Male	Female	
4. Aggravated P. O.	Black	1.16 (1.30)	0.80 (0.44)	0.98
	White	0.82 (1.03)	0.33 (0.32)	0.58
	Total	0.98 (1.15)	0.55 (0.44)	
5. Mitigated P. O.	Black	1.22 (1.13)	1.23 (0.55)	1.22
	White	1.47 (0.56)	1.47 (0.90)	1.47
	Total	1.35 (0.86)	1.36 (0.75)	

Note. For black males, $\underline{n}$ = 10; for black females, $\underline{n}$ = 10; for white males, $\underline{n}$ = 11; for white females, $\underline{n}$ = 11. Each $\underline{n}$ is based on the combined scores of the two males or two females in each of the groups, so each $\underline{n}$ represents twice that number of subjects (e.g., $\underline{n}$ = 10 represents 20 subjects). P. O. = Performance Outputs.

Table 5

2 X 2 (Sex by Ethnicity) Repeated Measures Analyses of
Variance for Rate of Occurrence of Acts Variables 1 - 5

Dependent Measure	Source	SS	df	MS	F	p

1. Total Acts	<u>Between-Subjects Variables</u>					
	Ethnicity	11.83	1	11.83	0.39	0.540
	Error	576.89	19	30.36		
	<u>Within-Subjects Variables</u>					
	Sex	43.40	1	43.40	6.98	0.016*
	Sex for Blacks	5.03	1	5.03	0.81	0.380
	Sex for Whites	51.77	1	51.77	8.32	0.009**
	Ethnicity by Sex	11.17	1	11.17	1.80	0.196
	Error	118.77	19	6.22		
2. Total P. O.	<u>Between-Subjects Variables</u>					
	Ethnicity	14.91	1	14.91	0.95	0.342
	Error	297.96	19	15.68		
	<u>Within-Subjects Variables</u>					
	Sex	62.75	1	62.75	12.93	0.002**
	Sex for Blacks	13.78	1	13.78	2.84	0.108
	Sex for Whites	57.55	1	57.55	11.86	0.003**

(table continues)

Dependent Measure	Source	<u>SS</u>	<u>df</u>	<u>MS</u>	<u>F</u>	<u>p</u>
	Ethnicity by Sex	6.50	1	6.50	1.34	0.262
	Error	92.18	19	4.85		
	<u>Between-Subjects Variables</u>					
3. Neutral P. O.	Ethnicity	11.15	1	11.15	1.13	0.302
	Error	188.20	19	9.91		
	<u>Within-Subjects Variables</u>					
	Sex	42.96	1	42.96	21.99	<.001**
	Sex for Blacks	8.52	1	8.52	4.36	0.051*
	Sex for Whites	41.44	1	41.44	21.21	<.001**
	Ethnicity by Sex	5.43	1	5.43	2.78	0.112
	Error	37.13	19	1.95		
4. Aggravated P. O.	<u>Between-Subjects Variables</u>					
	Ethnicity	1.70	1	1.70	2.03	0.171
	Error	15.96	19	0.84		
	<u>Within-Subjects Variables</u>					
	Sex	1.90	1	1.90	2.98	0.106
	Sex for Blacks	0.67	1	0.67	1.01	0.327
	Sex for Whites	1.30	1	1.30	1.97	0.176
	Ethnicity by Sex	.04	1	0.04	0.06	0.812

(table continues)

Dependent Measure	Source	<u>SS</u>	<u>df</u>	<u>MS</u>	<u>F</u>	<u>p</u>
5. Mitigated P. O.	Error	12.52	19	0.66		
	<u>Between-Subjects Variables</u>					
	Ethnicity	0.61	1	0.61	0.75	0.396
	Error	15.42	19	0.81		
	<u>Within-Subjects Variables</u>					
	Sex	<0.01	1	<0.01	<0.01	0.988
	Sex for Blacks	<0.01	1	<0.01	<0.01	0.975
	Sex for Whites	<0.01	1	<0.01	<0.01	0.991
	Ethnicity by Sex	<0.01	1	<0.01	<0.01	0.975
	Error	10.04	19	0.53		

Note. P. O. = Performance Outputs

* $p \leq .05$. ** $p \leq .01$.

Table 6

Cell Means (and Standard Deviations) for Percents of All
Performance Outputs which were Aggravated (Variable 6) and
Mitigated (Variable 7) by Sex and Ethnicity

Variable	Ethnicity	Sex		Total
		Male	Female	
6. Percent of all P. O. which were Aggravated	Black	11.27 (10.33)	11.02 (5.11)	11.15
	White	9.49 (11.23)	6.70 (6.43)	8.10
	Total	10.34 (10.58)	8.76 (6.11)	
7. Percent of all P. O. which were Mitigated	Black	12.63 (7.65)	17.83 (7.24)	15.23
	White	18.91 (8.86)	27.55 (12.25)	23.23
	Total	15.92 (8.71)	22.92 (11.11)	

Note. For black males, $\underline{n}$ = 10; for black females, $\underline{n}$ = 10; for white males, $\underline{n}$ = 11; for white females, $\underline{n}$ = 11. Each $\underline{n}$ is based on the combined scores of the two males or two females in each of the groups, so each $\underline{n}$ represents twice that number of subjects (e.g. $\underline{n}$ = 10 represents 20 subjects). P. O. = Performance Outputs.

Table 7

2 X 2 (Sex by Ethnicity) Repeated Measures Analyses of
Variance for Percentages of All Performance Outputs which
were Aggravated (Variable 6) and Mitigated (Variable 7)

Dependent Measure	Source	<u>SS</u>	<u>df</u>	<u>MS</u>	<u>F</u>	<u>P</u>
6. Percentages of all P. O. which were Aggravated	<u>Between-Subjects Variables</u>					
	Ethnicity	97.16	1	97.16	0.99	0.331
	Error	1857.41	19	97.76		
	<u>Within-Subjects Variables</u>					
	Sex	24.28	1	24.28	0.46	0.508
	Sex for Blacks	0.31	1	0.31	0.01	0.940
	Sex for Whites	42.93	1	42.93	0.81	0.381
	Ethnicity by Sex	16.94	1	16.94	0.32	0.580
	Error	1012.46	19	53.29		
	7. Percentages of all P. O. which were Mitigated	<u>Between-Subjects Variables</u>				
Ethnicity		671.55	1	671.55	5.80	0.026*
Error		2200.24	19	115.80		
<u>Within-Subjects Variables</u>						
Sex		501.55	1	501.55	8.80	0.008**
Sex for Blacks		135.16	1	135.16	2.37	0.140
Sex for Whites		410.49	1	410.49	7.20	0.015*
(table continues)						

Dependent Measure	Source	<u>SS</u>	<u>df</u>	<u>MS</u>	<u>F</u>	<u>p</u>
	Ethnicity by Sex	30.99	1	30.99	0.54	0.470
	Error	1083.10	19	57.01		

Note. P. O. = Performance Outputs

* $p \leq .05$. ** $p \leq .01$.

Table 8

Cell Means (and Standard Deviations) for Rates of Occurrence of Combinations of Acts and Non-Acts, Variables 8 and 9, by Sex and Ethnicity

Variable	Ethnicity	Sex		Total
		Male	Female	
8. On-Task Utterances	Black	12.80 (6.29)	11.95 (5.03)	12.38
	White	13.16 (4.23)	9.05 (4.26)	11.11
	Total	12.99 (5.18)	10.43 (4.77)	
9. Total Utterances	Black	14.01 (6.77)	13.36 (6.01)	13.69
	White	14.24 (4.53)	10.00 (4.81)	12.12
	Total	14.13 (5.56)	11.60 (5.55)	

Note. For black males, $\underline{n}$ = 10; for black females, $\underline{n}$ = 10; for white males, $\underline{n}$ = 11; for white females, $\underline{n}$ = 11. Each $\underline{n}$ is based on the combined scores of the two males or two females in each of the groups, so each $\underline{n}$ represents twice that number of subjects (e.g. $\underline{n}$ = 10 represents 20 subjects).

Table 9

2 X 2 (Sex by Ethnicity) Repeated Measures Analyses of
Variance for Rates of Occurrence of Combinations of Acts
and Non-Acts (Variables 8 and 9)

Dependent Measure	Source	<u>SS</u>	<u>df</u>	<u>MS</u>	<u>F</u>	<u>p</u>
8. On-Task Utt.	<u>Between-Subjects Variables</u>					
	Ethnicity	16.93	1	16.93	0.41	0.528
	Error	778.15	19	40.96		
	<u>Within-Subjects Variables</u>					
	Sex	64.70	1	64.70	7.35	0.014*
	Sex for Blacks	3.64	1	3.64	0.41	0.528
	Sex for Whites	93.24	1	93.24	10.60	0.004**
	Ethnicity by Sex	27.91	1	27.91	3.17	0.091
	Error	167.18	19	8.80		
9. Total Utt.	<u>Between-Subjects Variables</u>					
	Ethnicity	25.66	1	25.66	0.50	0.487
	Error	968.66	19	50.98		
	<u>Within-Subjects Variables</u>					
	Sex	62.62	1	62.62	5.77	0.027*
	Sex for Blacks	2.11	1	2.11	0.19	0.664
	Sex for Whites	98.88	1	98.88	9.11	0.007**

(table continues)

Dependent Measure	Source	<u>SS</u>	<u>df</u>	<u>MS</u>	<u>F</u>	<u>p</u>
	Ethnicity by Sex	33.76	1	33.76	3.11	0.094
	Error	206.20	19	10.85		

Note. Utt. = Utterances

* $p \leq .05$. ** $p \leq .01$.

Table 10

Cell Means (and Standard Deviations) for Rates of Occurrence of
Influence Attempts, Variables 10 - 15

Variable	Ethnicity	Sex		Total
		Male	Female	
10. Successful I. A.	Black	3.72 (2.52)	2.90 (1.40)	3.31
	White	4.51 (1.48)	2.69 (1.39)	3.45
	Total	4.13 (2.03)	2.79 (1.36)	
11. Unsuccessful I. A.	Black	1.57 (1.14)	1.25 (0.83)	1.41
	White	1.35 (0.90)	0.83 (0.59)	1.09
	Total	1.45 (1.00)	1.03 (0.73)	
12. Total I. A.	Black	5.29 (3.38)	4.15 (2.03)	4.72
	White	5.85 (1.72)	3.52 (1.87)	4.69
	Total	5.58 (2.59)	3.82 (1.93)	

(table continues)

Variable	Ethnicity	Sex		Total
		Male	Female	
13. Neutral I. A.	Black	3.65 (2.18)	2.56 (1.42)	3.11
	White	4.32 (1.83)	2.25 (1.23)	3.29
	Total	4.00 (1.98)	2.40 (1.30)	
14. Agg. I. A.	Black	0.59 (0.66)	0.35 (0.30)	0.47
	White	0.44 (0.54)	0.15 (0.16)	0.59
	Total	0.51 (0.59)	0.25 (0.26)	
15. Mit. I. A.	Black	0.87 (0.90)	0.98 (0.45)	1.07
	White	1.25 (0.47)	1.16 (0.67)	1.42
	Total	1.06 (0.73)	1.07 (0.56)	

Note. For black males, $\underline{n}$ = 10; for black females, $\underline{n}$ = 10; for white males, $\underline{n}$ = 11; for white females, $\underline{n}$ = 11. Each $\underline{n}$ is based on the combined scores of the two males or two females in each of the groups, so each $\underline{n}$ represents twice that number of subjects (e.g. $\underline{n}$ = 10 represents 20 subjects). I. A. = Influence Attempts.

Table 11

2 X 2 (Sex by Ethnicity) Repeated Measures Analyses of
Variance for Rates of Occurrence of Influence Attempts
(Variables 10 - 15)

<u>Dependent Measure</u>	<u>Source</u>	<u>SS</u>	<u>df</u>	<u>MS</u>	<u>F</u>	<u>p</u>
10. Successful I. A.	<u>Between-Subjects Variables</u>					
	Ethnicity	0.89	1	0.89	0.19	0.671
	Error	90.73	19	4.78		
	<u>Within-Subjects Variables</u>					
	Sex	18.19	1	18.19	13.68	0.002**
	Sex for Blacks	3.40	1	3.40	2.55	0.126
	Sex for Whites	18.04	1	18.04	13.57	0.002**
	Ethnicity by Sex	2.55	1	2.55	1.92	0.182
	Error	25.26	19	1.33		
11. Unsuccessful I. A.	<u>Between-Subjects Variables</u>					
	Ethnicity	1.09	1	1.09	0.80	0.383
	Error	25.92	19	1.36		
	<u>Within-Subjects Variables</u>					
	Sex	1.84	1	1.84	9.85	0.005**
	Sex for Blacks	0.51	1	0.51	2.73	0.115
	Sex for Whites	1.48	1	1.48	7.92	0.011*

(table continues)

Dependent Measure	Source	<u>SS</u>	<u>df</u>	<u>MS</u>	<u>F</u>	<u>p</u>
	Ethnicity by Sex	0.10	1	0.10	0.56	0.465
	Error	3.56	19	0.19		
12. Total I. A.	<u>Between-Subjects Variables</u>					
	Ethnicity	0.01	1	0.01	<0.01	0.974
	Error	174.95	19	9.21		
	<u>Within-Subjects Variables</u>					
	Sex	31.62	1	31.62	20.54	<.001**
	Sex for Blacks	6.54	1	6.54	4.25	0.053*
	Sex for Whites	28.87	1	29.87	19.41	<.001**
	Ethnicity by Sex	3.69	1	3.69	2.34	0.138
	Error	29.24	19	1.54		
13. Neutral I. A.	<u>Between-Subjects Variables</u>					
	Ethnicity	0.34	1	0.34	0.07	0.795
	Error	92.45	19	4.87		
	<u>Within-Subjects Variables</u>					
	Sex	26.14	1	26.14	29.34	<.001**
	Sex for Blacks	5.94	1	5.94	6.67	0.018*
	Sex for Whites	23.55	1	23.55	26.43	<.001**
	<u>(table continues)</u>					

Dependent Measure	Source	<u>SS</u>	<u>df</u>	<u>MS</u>	<u>F</u>	<u>p</u>
	Ethnicity by Sex	2.51	1	2.51	2.82	0.110
	Error	16.93	19	0.89		
14. Aggravated I. A.	<u>Between-Subjects Variables</u>					
	Ethnicity	0.31	1	0.31	1.26	0.276
	Error	4.40	19	0.24		
	<u>Within-Subjects Variables</u>					
	Sex	0.71	1	0.71	3.96	0.062
	Sex for Blacks	0.29	1	0.29	1.64	0.217
	Sex for Whites	0.42	1	0.42	2.35	0.143
	Ethnicity by Sex	0.01	1	0.01	0.03	0.860
	Error	3.22	19	0.18		
	<u>Between-Subjectss Variables</u>					
15. Mitigated I. A.	Ethnicity	0.79	1	0.79	1.50	0.237
	Error	9.45	18	0.53		
	<u>Within-Subjects Variables</u>					
	Sex	<0.01	1	<0.01	<0.01	0.959
	Sex for Blacks	0.06	1	0.06	0.18	0.675
	Sex for Whites	0.04	1	0.04	0.12	0.728
	Error	5.76	18	0.32		
	<u>(table continues)</u>					

Note. I. A. = Influence Attempts

* $p \leq .05$. ** $p \leq .01$.

Table 12

Cell Means (and Standard Deviations) for Percents of all
Influence Attempts which were Aggravated (Variable 16) and
Mitigated (Variable 17) by Sex and Ethnicity

Variable	Ethnicity	Sex		Total
		Male	Female	
16. Percentages of All I. A. which were Aggravated	Black	10.59 (12.00)	8.79 (5.54)	9.69
	White	8.10 (10.48)	3.61 (4.42)	5.86
	Total	9.34 (11.04)	6.20 (5.55)	
17. Percentages of all I. A. which were Mitigated	Black	15.39 (9.04)	25.85 (7.46)	20.62
	White	22.58 (10.63)	30.82 (12.02)	26.70
	Total	18.99 (10.29)	28.33 (10.06)	

Note. For black males, $\underline{n} = 10$; for black females, $\underline{n} = 10$; for white males, $\underline{n} = 11$; for white females, $\underline{n} = 11$. Each $\underline{n}$ is based on the combined scores of the two males or two females in each of the groups, so each $\underline{n}$ represents twice that number of subjects (e.g. $\underline{n} = 10$ represents 20 subjects).

Table 13

2 X 2 (Sex by Ethnicity) Repeated Measures Analyses of Variance
for Percentages of All Influence Attempts which were Aggravated
(Variable 16) and Mitigated (Variable 17)

Dependent Measure	Source	<u>SS</u>	<u>df</u>	<u>MS</u>	<u>F</u>	<u>p</u>

16. Percentages of I. A. which were Aggravated	<u>Between-Subjects Variables</u>					
	Ethnicity	147.42	1	147.42	1.73	0.205
	Error	1537.69	18	85.43		
	<u>Within-Subjects Variables</u>					
	Sex	99.13	1	99.13	1.49	0.238
	Sex for Blacks	16.31	1	16.31	0.25	0.626
	Sex for Whites	100.83	1	100.83	1.52	0.234
	Ethnicity by Sex	18.02	1	18.02	0.27	0.609
	Error	1196.24	18	66.46		
17. Percentages of I. A. which were Mitigated	<u>Between-Subjects Variables</u>					
	Ethnicity	369.59	1	369.59	3.37	0.083
	Error	1972.45	18	109.58		
	<u>Within-Subjects Variables</u>					
	Sex	873.47	1	873.47	9.95	0.005**
	Sex for Blacks	546.63	1	546.63	6.22	0.023*
	Sex for Whites	339.16	1	339.16	3.86	0.065

(table continues)

Dependent Measure	Source	<u>SS</u>	<u>df</u>	<u>MS</u>	<u>F</u>	<u>p</u>

	Ethnicity by Sex	12.32	1	12.32	0.14	0.712
	Error	1580.82	18	87.82		

Note. I. A. = Influence Attempts

* $p \leq .05$. ** $p \leq .01$.

Table 14

Cell Means (and Standard Deviations) for Percentages of all
Influence Attempts and of Influence Attempts in Each
Linguistic Form which were Successful (Variables 18 - 21)
by Sex and Ethnicity

Variable	Ethnicity	Sex		Total
		Male	Female	
18. Percentages of All I. A. which were Successful	Black	71.22 (13.56)	82.56 (7.28)	76.89
	White	77.80 (12.89)	84.97 (6.93)	81.39
	Total	74.67 (13.31)	83.82 (7.02)	
19. Percentages of All Neutral I. A. which were Successful	Black	76.21 (12.90)	82.17 (8.83)	79.19
	White	78.97 (16.89)	82.69 (9.56)	80.83
	Total	77.65 (14.82)	82.44 (8.99)	
20. Percentages of All Aggravated I. A. which were Successful	Black	60.14 (36.15)	81.21 (14.59)	70.68
	White	75.44 (35.05)	56.57 (49.15)	66.01
	Total	67.79 (35.53)	68.89 (37.48)	

(table continues)

Variable	Ethnicity	Sex		Total
		Male	Female	
21. Percentages of all Mitigated I. A. which were Successful	Black	60.13 (18.87)	61.51 (18.76)	60.82
	White	69.37 (18.97)	62.85 (25.15)	66.11
	Total	64.75 (19.01)	62.18 (21.61)	

Note. For black males, $\underline{n}$ = 10; for black females, $\underline{n}$ = 10; for white males, $\underline{n}$ = 11; for white females, $\underline{n}$ = 11. Each $\underline{n}$ is based on the combined scores of the two males or two females in each of the groups, so each $\underline{n}$ represents twice that number of subjects (e.g. $\underline{n}$ = 10 represents 20 subjects). I. A. = Influence Attempts

Table 15

2 X 2 (Sex by Ethnicity) Repeated Measures Analyses of Variance
for Percentages of All Influence Attempts and of Influence
Attempts in each Linguistic Form which were Successful
(Variables 18 - 21)

<u>Dependent Measure</u>	<u>Source</u>	<u>SS</u>	<u>df</u>	<u>MS</u>	<u>F</u>	<u>p</u>
18. Percentages of All I. A. which were Successful	<u>Between-Subjects Variables</u>					
	Ethnicity	211.91	1	211.91	1.35	0.260
	Error	2982.01	19	156.95		
	<u>Within-Subjects Variables</u>					
	Sex	896.67	1	896.67	13.20	0.002**
	Sex for Blacks	642.66	1	642.66	9.46	0.006**
	Sex for Whites	282.442	1	282.42	4.16	0.056
	Ethnicity by Sex	45.57	1	45.57	0.67	0.423
	Error	1290.61	19	67.93		
	<u>Between-Subjects Variables</u>					
19. Percentages of All Neutral I. A. which were Successful	Ethnicity	28.14	1	28.14	0.16	0.696
	Error	3405.44	19	179.23		
	<u>Within-Subjects Variables</u>					
	Sex	245.62	1	245.62	1.82	0.193

(table continues)

Dependent Measure	Source	<u>SS</u>	<u>df</u>	<u>MS</u>	<u>F</u>	<u>p</u>
	Sex for Blacks	177.43	1	177.43	1.32	0.265
	Sex for Whites	76.40	1	76.40	0.57	0.461
	Ethnicity by Sex	13.02	1	13.02	0.10	0.759
	Error	2559.98	19	134.74		
20. Percentages of All Agg. I. A. which were Succ.	<u>Between-Subjects Variables</u>					
	Ethnicity	217.83	1	217.83	0.15	0.707
	Error	26815.76	18	1489.76		
	<u>Within-Subjects Variables</u>					
	Sex	12.16	1	12.16	0.01	0.917
	Sex for Blacks	2221.44	1	2221.44	2.03	0.171
21. Percentages of All Mit. I. A. which were Succ.	Sex for Whites	1780.95	1	1780.95	1.63	0.218
	Ethnicity by Sex	3990.24	1	3990.24	3.65	0.072
	Error	19662.95	18	1092.39		
	<u>Between-Subjects Variables</u>					
	Ethnicity	279.60	1	279.60	0.50	0.488
	Error	10044.87	18	558.05		
	<u>Within-Subjects Variables</u>					
	Sex	66.01	1	66.01	0.23	0.640
	Sex for Blacks	9.48	1	9.48	0.03	0.859

(table continues)

<u>Dependent Measure</u>	<u>Source</u>	<u>SS</u>	<u>df</u>	<u>MS</u>	<u>F</u>	<u>p</u>
	Sex for Whites	212.26	1	212.26	0.73	0.405
	Ethnicity by Sex	155.73	1	155.73	0.53	0.475
	Error	5258.31	18	292.13		

Note. I. A. = Influence Attempts; Succ. = Successful; Agg. = Aggravated; Mit. = Mitigated

* $p \leq .05$. ** $p \leq .01$.

Table 16

Cell Means (and Standard Deviations) for Rates of Occurrence of the Additional Acts Variables (Variables 22 - 24) by Sex and Ethnicity

Variable	Ethnicity	Sex		Total
		Male	Female	
22. Action Opportunities	Black	0.64 (0.54)	0.94 (0.53)	0.79
	White	0.66 (0.63)	0.72 (0.58)	0.69
	Total	0.65 (0.57)	0.82 (0.56)	
23. Simple Positive R/E	Black	1.37 (1.19)	1.70 (1.47)	1.54
	White	1.76 (0.50)	1.97 (0.94)	1.87
	Total	1.57 (0.91)	1.84 (1.20)	
24. Simple Negative R/E	Black	0.25 (0.27)	0.27 (0.22)	0.26
	White	0.21 (0.18)	0.11 (0.21)	0.16
	Total	0.23 (0.22)	0.19 (0.23)	

(table continues)

Note. For black males, $\underline{n} = 10$; for black females, $\underline{n} = 10$; for white males, $\underline{n} = 11$; for white females, $\underline{n} = 11$. Each $\underline{n}$ is based on the combined scores of the two males or two females in each of the groups, so each $\underline{n}$ represents twice that number of subjects (e.g., $\underline{n} = 10$ represents 20 subjects). R/E = Reactions/Evaluations.

Table 17

2 X 2 (Sex by Ethnicity) Repeated Measures Analyses of Variance
for Rates of Occurrence of the Additional Acts Variables
(Variables 22 - 24)

<u>Dependent Measure</u>	<u>Source</u>	<u>SS</u>	<u>df</u>	<u>MS</u>	<u>F</u>	<u>p</u>
22. Action Oppor- tunities	<u>Between-Subjects Variables</u>					
	Ethnicity	0.11	1	0.11	0.39	0.541
	Error	5.28	19	0.28		
	<u>Within-Subjects Variables</u>					
	Sex	0.33	1	0.33	0.87	0.363
	Sex for Blacks	0.46	1	0.46	1.21	0.284
	Sex for Whites	0.01	1	0.01	0.04	0.847
	Ethnicity by Sex	0.17	1	0.17	0.44	0.516
	Error	7.23	19	0.38		
23. Simple Pos. R/E	<u>Between-Subjects Variables</u>					
	Ethnicity	1.18	1	1.18	0.57	0.459
	Error	39.20	19	2.06		
	<u>Within-Subjects Variables</u>					
	Sex	0.76	19	0.76	2.89	0.105
	Sex for Blacks	0.52	1	0.52	1.98	0.175

(table continues)

Sex for Whites	0.26	1	0.26	0.98	0.335
Ethnicity by Sex	0.03	1	0.03	0.11	0.740
Error	4.97	19	0.26		

24. Simple
Neg. R/E

Between-Subjects Variables

Ethnicity	0.10	1	0.10	1.33	0.264
Error	1.50	19	0.08		

Within-Subjects Variables

Sex	0.02	1	0.02	0.86	0.365
Sex for Blacks	<0.01	1	<0.01	0.15	0.699
Sex for Whites	0.06	1	0.06	3.09	0.095
Ethnicity by Sex	0.04	1	0.04	2.24	0.151
Error	0.34	19	0.02		

Note. R/E = Reactions/Evaluations; Pos. = Positive; Neg. = Negative.

* $p \leq .05$. ** $p \leq .01$.

Table 18

Cell Means (and Standard Deviations) for Percentages of all Acts
which were in the Additional Acts Categories (Variables 25 - 28)
by Sex and Ethnicity

Variable	Ethnicity	Sex		Total
		Male	Female	
25. Action Opportunities	Black	5.69 (4.56)	9.83 (5.25)	7.76
	White	6.17 (6.13)	7.95 (5.09)	7.06
	Total	5.94 (5.31)	8.85 (5.13)	
26. Simple Positive R/E	Black	11.49 (5.07)	14.98 (7.95)	13.24
	White	16.58 (6.32)	29.34 (15.30)	22.96
	Total	14.16 (6.19)	22.50 (14.12)	

(table continues)

Variable	Ethnicity	Sex		Total
		Male	Female	
27. Simple Negative R/E	Black	2.20 (2.16)	2.58 (1.67)	2.39
	White	1.95 (1.67)	0.95 (1.55)	1.45
	Total	2.07 (1.88)	1.73 (1.77)	
28. Simple Positive or Simple Negative R/E	Black	13.70 (5.39)	17.56 (8.90)	15.63
	White	18.52 (5.96)	30.29 (14.88)	24.41
	Total	16.23 (6.08)	24.23 (13.74)	

Note. For black males, $\underline{n}$ = 10; for black females, $\underline{n}$ = 10; for white males, $\underline{n}$ = 11; for white females, $\underline{n}$ = 11. Each $\underline{n}$ is based on the combined scores of the two males or two females in each of the groups, so each $\underline{n}$ represents twice that number of subjects (e.g. $\underline{n}$ = 10 represents 20 subjects). R/E = Reactions/Evaluations.

Dependent Measure	Source	<u>SS</u>	<u>df</u>	<u>MS</u>	<u>F</u>	<u>p</u>
	Ethnicity by Sex	224.90	1	224.90	2.49	0.131
	Error	1718.55	19	90.45		
27. Percentages of All Acts which were Simple Neg. R/E	<u>Between-Subjects Variables</u>					
	Ethnicity	9.30	1	9.30	2.06	0.167
	Error	85.67	19	4.51		
	<u>Within-Subjects Variables</u>					
	Sex	0.99	1	0.99	0.56	0.462
	Sex for Blacks	0.71	1	0.71	0.40	0.533
	Sex for Whites	5.43	1	5.43	3.08	0.096
	Ethnicity by Sex	4.92	1	4.92	2.79	0.111
	Error	33.54	19	1.77		
	<u>Between-Subjects Variables</u>					
28. Percentages of All Acts which were Simple Pos. or Simple Neg. R/E	Ethnicity	807.17	1	807.17	8.81	0.008**
	Error	1739.92	19	91.57		
	<u>Within-Subjects Variables</u>					
	Sex	640.27	1	640.27	6.74	0.018*
	Sex for Blacks	74.88	1	74.88	0.79	0.386
	Sex for Whites	761.36	1	761.36	8.02	0.011*
	Ethnicity	163.28	1	163.28	1.72	0.205
	Error	1804.67	19	94.98		
	<u>(table continues)</u>					

Note. Opp. = Opportunities; R/E = Reactions/Evaluations; Pos. =
Positive; Neg. = Negative

* $p \leq .05$. ** $p \leq .01$.

Table 20

Cell Means (and Standard Deviations) for Rates of
Occurrence of Non-Acts (Variables 29 - 32) by Sex and
Ethnicity

Variable	Ethnicity	Sex		Total
		Male	Female	
29. Incomplete, Interrupted Utt.	Black	0.28 (0.21)	0.27 (0.24)	0.28
	White	0.20 (0.17)	0.32 (0.29)	0.26
	Total	0.24 (0.19)	0.30 (0.26)	
30. Uncodable Utterances	Black	0.88 (0.51)	1.09 (1.02)	0.99
	White	0.79 (0.47)	0.60 (0.41)	0.70
	Total	0.83 (0.48)	0.84 (0.79)	
31. Non Task-Related Utt.	Black	0.05 (0.07)	0.05 (0.07)	0.05
	White	0.09 (0.28)	0.03 (0.07)	0.06
	Total	0.07 (0.20)	0.04 (0.07)	

(table continues)

Variable	Ethnicity	Sex		Total
		Male	Female	
32. Utt. Directed to the Exp.	Black	3.70 (1.84)	3.67 (1.60)	3.69
	White	4.35 (1.20)	3.51 (1.40)	3.93
	Total	4.04 (1.53)	3.59 (1.46)	

Note. For black males, $\underline{n}$ = 10; for black females, $\underline{n}$ = 10; for white males, $\underline{n}$ = 11; for white females, $\underline{n}$ = 11. Each $\underline{n}$ is based on the combined scores of the two males or two females in each of the groups, so each $\underline{n}$ represents twice that number of subjects (e.g. $\underline{n}$ = 10 represents 20 subjects). Utt. = Utterances; Exp. = Experimenter (host or camera operator)

Table 21

2 X 2 (Sex by Ethnicity) Repeated Measures Analyses of Variance
for Rate of Occurrence of Non-Acts (Variables 29 - 32)

<u>Dependent Measure</u>	<u>Source</u>	<u>SS</u>	<u>df</u>	<u>MS</u>	<u>F</u>	<u>p</u>
29. Incomplete, Interrupted Utt.	<u>Between-Subjects Variables</u>					
	Ethnicity	<0.01	1	<0.01	0.05	0.830
	Error	1.20	19	0.06		
	<u>Within-Subjects Variables</u>					
	Sex	0.03	1	0.03	0.83	0.373
	Sex for Blacks	<0.01	1	<0.01	0.01	0.920
	Sex for Whites	0.09	1	0.09	2.04	0.169
	Ethnicity by Sex	0.05	1	0.05	1.12	0.302
	Error	0.79	19	0.04		
30. Uncodable Utt.	<u>Between-Subjects Variables</u>					
	Ethnicity	0.89	1	0.89	1.47	0.240
	Error	11.51	19	0.61		
	<u>Within-Subjects Variables</u>					
	Sex	<0.01	1	<0.01	0.01	0.941
	Sex for Blacks	0.22	1	0.22	1.01	0.328
	Sex for Whites	0.19	1	0.19	0.89	0.357

(table continues)

Dependent Measure	Source	<u>SS</u>	<u>df</u>	<u>MS</u>	<u>F</u>	<u>p</u>
	Ethnicity by Sex	0.41	1	0.41	1.90	0.184
	Error	4.15	19	0.22		
31. Non-Task- Related Utt.	<u>Between-Subjects Variables</u>					
	Ethnicity	<0.01	1	<0.01	0.07	0.798
	Error	0.64	19	0.03		
	<u>Within-Subjects Variables</u>					
	Sex	0.01	1	0.01	0.58	0.455
	Sex for Blacks	<0.01	1	<0.01	<0.01	0.962
	Sex for Whites	0.02	1	0.02	1.33	0.262
	Ethnicity by Sex	0.01	1	0.01	0.69	0.416
	Error	0.27	19	0.01		
32. Utt. Directed to the Exp.	<u>Between-Subjects Variables</u>					
	Ethnicity	0.65	1	0.65	0.18	0.680
	Error	69.82	19	3.67		
	<u>Within-Subjects Variables</u>					
	Sex	1.98	1	1.98	2.12	0.162
	Sex for Blacks	0.01	1	0.01	0.01	0.938
	Sex for Whites	3.84	1	3.84	4.11	0.057
	Ethnicity by Sex	1.68	1	1.68	1.80	0.196
						(table continues)
Dependent Measure	Source	<u>SS</u>	<u>df</u>	<u>MS</u>	<u>F</u>	<u>p</u>

Error	17.76	19	0.93

Note. Utt. = Utterances; Exp. = Experimenter (host or camera operator).

* $p \leq .05$. ** $p \leq .01$.

Table 22

Cell Means (and Standard Deviations) for Percentages of All
Utterances (except Utterances Directed to the Experimenter^a) Which
Were in Each Category of Non-Acts (Variables 33 - 36) by Sex and
Ethnicity

Variable	Ethnicity	Sex		Total
		Male	Female	
33. Percentages of all Utt. which were Incomplete, Interrupted Utt.	Black	1.89 (0.97)	1.97 (1.67)	1.93
	White	1.31 (1.00)	3.22 (2.68)	2.27
	Total	1.58 (1.01)	2.63 (2.29)	
34. Percentages of all Utt. which were Uncodable Utt.	Black	5.54 (3.10)	7.25 (4.34)	6.40
	White	5.51 (2.98)	5.81 (2.31)	5.66
	Total	6.00 (3.01)	6.49 (3.42)	
35. Percentages of all Utt. which were Non-Task-Related Utt.	Black	0.42 (0.64)	0.39 (0.56)	0.41
	White	0.51 (1.58)	0.16 (0.37)	0.34
	Total	0.47 (1.20)	0.27 (0.47)	

(table continues)

Variable	Ethnicity	Sex		Total
		Male	Female	
36. Percentages of all Utt. which were Non-Act Utt.	Black	21.30 (5.64)	23.74 (6.25)	22.52
	White	21.15 (8.34)	19.03 (5.48)	20.09
	Total	21.22 (7.01)	21.28 (6.20)	

Note. For black males, $\underline{n}$ = 10; for black females, $\underline{n}$ = 10; for white males, $\underline{n}$ = 11; for white females, $\underline{n}$ = 11. Each $\underline{n}$ is based on the combined scores of the two males or two females in each of the groups, so each $\underline{n}$ represents twice that number of subjects (e.g. $\underline{n}$ = 10 represents 20 subjects). Utt. = Utterances.

^a The Experimenter is the host or the camera operator.

Table 23

2 X 2 (Sex by Ethnicity) Repeated Measures Analyses of Variance
for Percentages of All Utterances (except Utterances Directed to
the Experimenter) which were in Each Category of Non-Act
(Variables 33 - 36)

<u>Dependent Measure</u>	<u>Source</u>	<u>SS</u>	<u>df</u>	<u>MS</u>	<u>F</u>	<u>p</u>
33. Percentages of Utt. which were Incomplete, Interrupted Utt.	<u>Between-Subjects Variables</u>					
	Ethnicity	1.17	1	1.17	0.29	0.595
	Error	75.14	19	3.99		
	<u>Within-Subjects Variables</u>					
	Sex	10.41	1	10.41	4.98	0.038*
	Sex for Blacks	0.03	1	0.03	0.01	0.905
	Sex for Whites	20.18	1	20.18	9.65	0.006**
	Ethnicity by Sex	8.84	1	8.84	4.23	0.054*
34. Percentages of Utt. which were Uncodable Utt.	<u>Between-Subjects Variables</u>					
	Ethnicity	16.06	1	16.06	1.21	0.284
	Error	251.40	19	13.23		
	<u>Within-Subjects Variables</u>					
	Sex	2.64	1	2.64	0.34	0.566
	Sex for Blacks	2.46	1	2.46	0.32	0.579
	Sex for Whites	0.50	1	0.50	0.06	0.802
	(table continues)					
<u>Dependent Measure</u>	<u>Source</u>	<u>SS</u>	<u>df</u>	<u>MS</u>	<u>F</u>	<u>p</u>
	Ethnicity	0.42	1	0.42	0.05	0.819

by Sex

Error	146.72	19	7.72

35. Percentages
of Utt.
which were
Non-Task-
Related Utt.

Between-Subjects Variables

Ethnicity	0.05	1	0.05	0.04	0.848
Error	23.75	19	1.25		

Within-Subjects Variables

Sex	0.37	1	0.37	0.77	0.393
Sex for Blacks	<0.01	1	<0.01	0.01	0.937
Sex for Whites	0.67	1	0.67	1.40	0.251
Ethnicity by Sex	0.28	1	0.28	0.58	0.457
Error	9.10	19	0.48		

36. Percentages
of Utt.
which were
Non-Act Utt.

Between-Subjects Variables

Ethnicity	61.79	1	61.79	1.01	0.327
Error	1157.44	19	60.92		

Within-Subjects Variables

Sex	0.29	1	0.29	0.01	0.916
Sex for Blacks	29.94	1	29.94	1.19	0.289
Sex for Whites	24.60	1	24.60	.98	0.335
Ethnicity by Sex	54.51	1	54.51	2.17	0.157

(table continues)

Dependent Measure	Source	<u>SS</u>	<u>df</u>	<u>MS</u>	<u>F</u>	<u>p</u>

	Error	477.22	19	25.12		

Note. Utt. = Utterances

* $p \leq .05$. ** $p \leq .01$.

Table 24

Cell Means (and Standard Deviations) for Percentages of All Utterances (including Utterances Directed to the Experimenter) which were Utterance Directed to the Experimenter^a by Sex and Ethnicity (Variable 37)

Variable	Ethnicity	Sex		Total
		Male	Female	
37. Percentages of all Utt. which were Utt. Directed to the Exp.	Black	21.23 (7.54)	21.95 (7.24)	21.59
	White	24.16 (7.47)	28.46 (10.59)	26.31
	Total	22.76 (7.46)	25.36 (9.53)	

Note. For black males, $\underline{n}$ = 10; for black females, $\underline{n}$ = 10; for white males, $\underline{n}$ = 11; for white females, $\underline{n}$ = 11. Each $\underline{n}$ is based on the combined scores of the two males or two females in each of the groups, so each $\underline{n}$ represents twice that number of subjects (e.g. $\underline{n}$ = 10 represents 20 subjects). Utt. = Utterances. Exp. = Experimenter.

^a The Experimenter is the host or the camera operator.

Table 25

2 X 2 (Sex by Ethnicity) Repeated Measures Analyses of Variance
for Percentages of All Utterances (including Utterances Directed
the Experimenter) which were Directed to the Experimenter
(Variable 37)

Dependent Measure	Source	<u>SS</u>	<u>df</u>	<u>MS</u>	<u>F</u>	<u>p</u>

37. Percentage of All Utt. which were Directed to the Exp.	<u>Between-Subjects Variables</u>					
	Ethnicity	233.82	1	233.82	2.31	0.145
	Error	1926.74	19	101.41		
	<u>Within-Subjects Variables</u>					
	Sex	66.15	1	66.15	1.71	0.206
	Sex for Blacks	2.62	1	2.62	0.07	0.797
	Sex for Whites	101.76	1	101.76	2.63	0.121
	Ethnicity by Sex	33.51	1	33.51	0.87	0.363
	Error	734.40	19	38.65		

Note. Utt. = Utterances; Exp. = Experimenter (host or camera operator).

* $p \leq .05$. ** $p \leq .01$.

Table 26

**Cell Means (and Standard Deviations) for Percentages of All
Proposals which were Successful (Variable 38) and of All
Defenses which were Defenses of Successful Proposals
(Variable 39) by Sex and Ethnicity**

Variable	Ethnicity	Sex		Total
		Male	Female	
38. Percentages of all Proposals which were Successful	Black	49.93 (20.15)	48.14 (21.77)	49.04
	White	59.55 (19.06)	56.66 (20.99)	58.11
	Total	54.97 (19.71)	52.61 (21.27)	
39. Percentages of all Defenses which were Defenses of Success- ful Proposals	Black	77.78 (13.08)	95.38 (3.33)	86.58
	White	84.63 (12.56)	94.14 (4.92)	89.39
	Total	81.37 (12.97)	94.73 (4.18)	

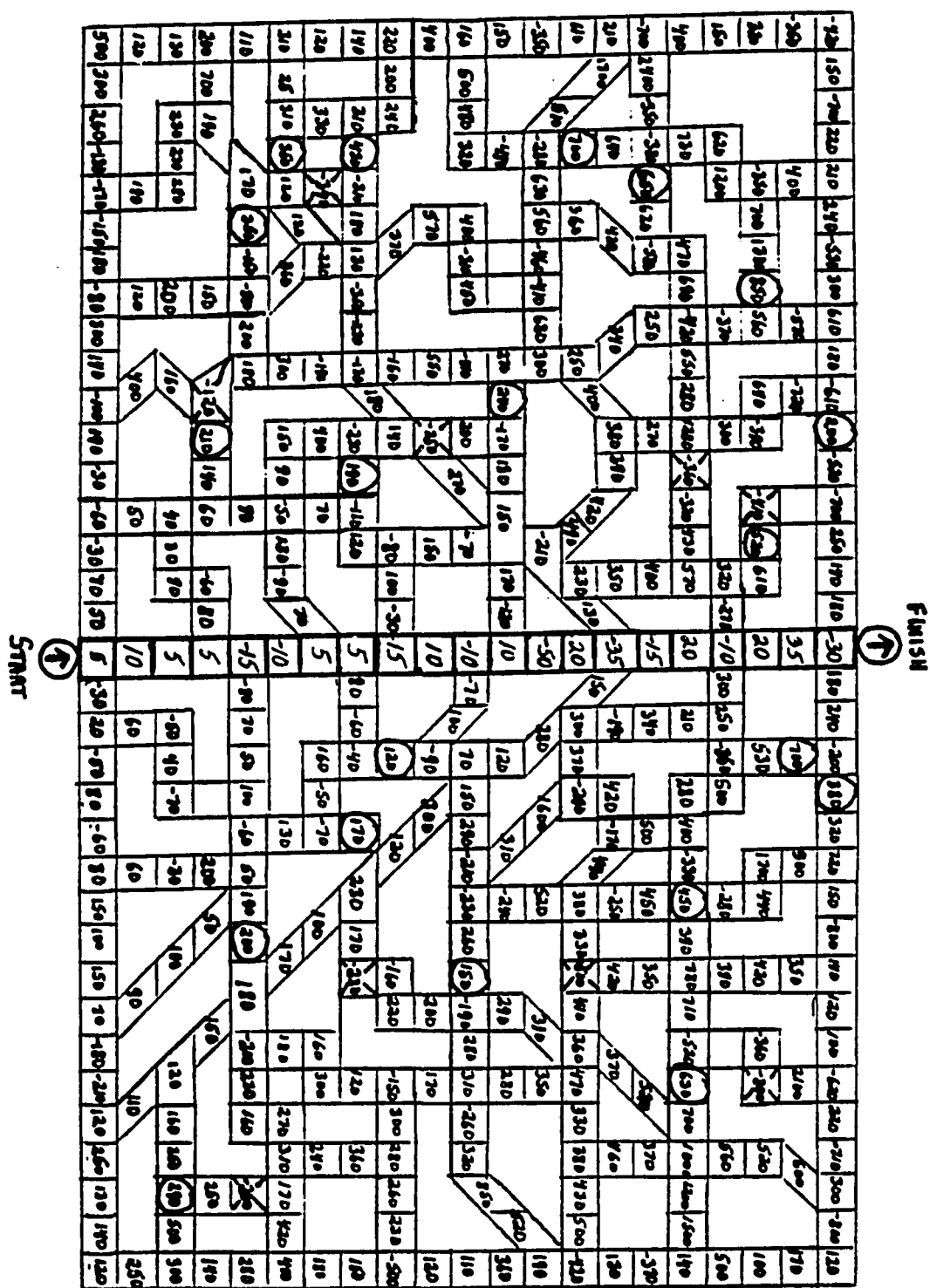
Note. For black males, $\underline{n} = 10$; for black females, $\underline{n} = 10$; for white males, $\underline{n} = 11$; for white females, $\underline{n} = 11$. Each $\underline{n}$ is based on the combined scores of the two males or two females in each of the groups, so each $\underline{n}$ represents twice that number of subjects (e.g. $\underline{n} = 10$ represents 20 subjects).

Sex for Whites	497.78	1	497.78	6.66	0.018*
Ethnicity by Sex	170.96	1	170.96	2.29	0.147
Error	1419.26	19	74.70		

* $p \leq .05$. ** $p \leq .01$.

Figure 1

Drawing of the Game Board



Negative numbered squares are red
Positive numbered squares are green
Squares in the center path have yellow borders

Figure 2

Sign Summarizing the Rules of the GameRULES

1. Make all decisions as a team.
2. To win the game, you must get to the finish line in 14 turns (or less). If you do win, each team member receives a small prize.
If you win and your team also scores 3,700 points or more, each team member will receive a cassette.
3. Green squares 50 ---> win points.
Green squares
with a circle 50 ---> win points and an
extra turn.
4. Red squares 50 ---> lose points.
Red squares with
and "X" 50 ---> lose points and a
turn.
5. You may follow any path, any direction.

Figure 3

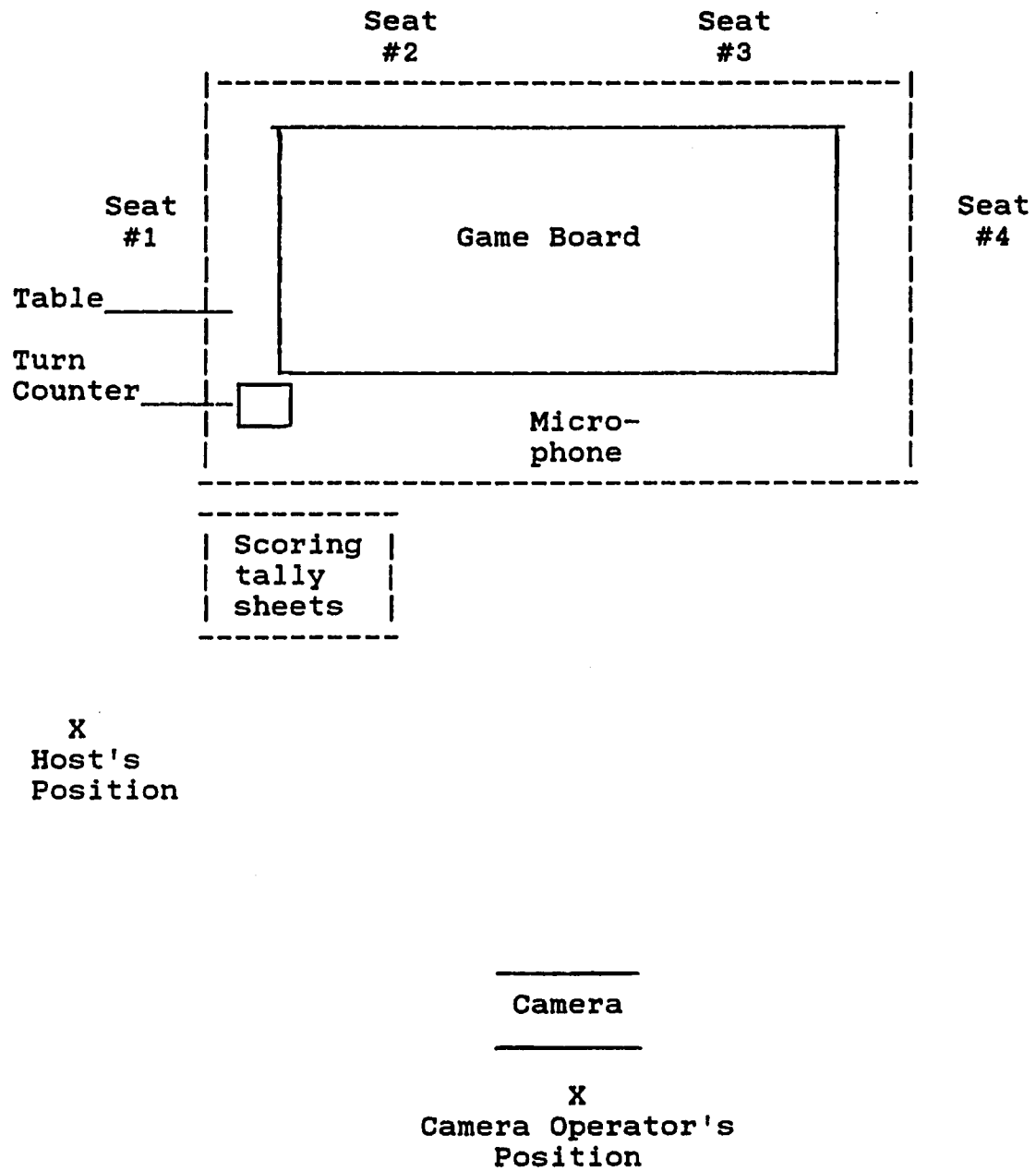
Layout of the Experimental Room

Figure 4

Design of the Study: Repeated Measures ANOVA

	<u>Group Number</u>	<u>Male Response</u>	<u>Female Response</u>
Black groups	1		
	2		
	3		
	4		
	5		
	6		
	7		
	8		
	9		
	10		
White groups	1		
	2		
	3		
	4		
	5		
	6		
	7		
	8		
	9		
	10		
	11		

APPENDIX A

Coding Rules

Overview

The system for coding the interactions consists of three main parts:

- I. Definitions of Acts (and the categories and subcategories of acts) and definitions of other utterances
- II. Influence Attempt Coding -- rules for coding of successful and unsuccessful proposals, and defenses of successful and unsuccessful proposals

The coding of Acts and Other Utterances (Part I) and Influence (Part II) was done by looking simultaneously at the transcriptions of the videotapes and at the videotapes themselves.

Team members, or persons participating in the group interaction are herein referred to as "actors."

=====

Part I - Definitions of Acts and of Other Utterances

Acts

Definition of an Act

An utterance in the interaction will be considered an act if it:

- 1- is task-related and understandable in its own terms,
- 2- can be coded in one of the mutually exclusive categories of acts defined herein, and
- 3- is directed to another actor or to the group as a whole, and not to the Host or the camera operator.
(See the one exception to this third rule, under Aggravated Performance Outputs, below.)

Rule for determining where each act ends:

An utterance, of whatever length, and regardless of pauses, which meets the above definition of an Act, is considered to be a single, continuous Act as long as:

- 1- it remains in one mutually exclusive category of Act (defined below), and
- 2- it remains addressed to the same actor or to the group as a whole.

If the recipient of an Act changes, or the category of type of Act changes, then another Act is scored.

Interrupted utterances:

If an actor is interrupted by another actor and then resumes, the utterance is coded as one Act (if it meets the definition of an Act). If an actor is interrupted by another actor and then does not resume, the utterance is still coded as an Act if it was complete enough at the time it was interrupted to meet the definition of an Act. If the interrupted utterance does not meet the definition

of an Act, it is coded as an Incomplete, Interrupted Utterance, one of the Non-Act categories, defined later.

Categories of Acts:

The following categories of Acts will be coded. Note: There are also a number of subcategories, which are defined under each of these major categories.

1. Aggravated Performance Output
2. Mitigated Performance Output
3. Neutral Performance Output
4. Action Opportunity
5. Simple Positive Reaction/Evaluation
6. Simple Negative Reaction/Evaluation

Definitions of Categories of Acts

Performance Outputs (Categories 1, 2 & 3)

Performance Output - an act that moves the task forward toward the goal of the game. It may be either: a suggestion or opinion regarding how to handle the situation, what course of action should or should not be taken, or how the group should or should not proceed; or it may be other than a suggestion or opinion, but still relevant to the question of what course of action should be taken. (Specific definitions of each kind of Performance Output are below.) Examples:

"Let's go this way."

"This way is better cause there's less reds."

"So we got 300 points so far, right?"

"We could get there in nine turns."

"That's good."

"What do you think?"

"We only got 1,000 points, and just three more turns."

(Note: To be coded as a Performance Output an act must be more than a Simple Positive or Negative Reaction/Evaluation--categories 5 and 6, respectively--such as "yeah" or "no"

Categories of Performance Outputs

1. Aggravated Performance Output (Ag) - a Performance Output which expresses lack of consideration for the point of view of the listener or a view of the parties as having asymmetrical rights with respect to each other, or as expecting compliance. This may be expressed by: an increase in force, or by being constructed as a command that a particular course of action be taken in the game or that another actor or actors carry out some action at the time the imperative is issued. The aggravated nature of the Act may be evidenced by the particular words used and/or by the intonation.

Also the aggravated nature may be evidenced by a Performance Output being directed to the Host if it functions to control the decision by telling the Host which path to mark, without the actor first finding out that at least two of his or her team members agree.

Examples of Aggravated Performance Output defined based on the words used:

"We're going up"

"Go straight"

"Then I'm gonna move this way"

"We go this way, and then this way"

Examples of Aggravated Performance Outputs defined based on the intonation, interpreted in context.

"Wait!" "Let's go up" "Hold up!"

Notes:

(1) Coding Performance Outputs directed to the Host as Aggravated Performance Outputs (see above) is an exception to the part of the definition of Acts which says that Acts are utterances not directed to the Host or the camera operator.

=====

2. Mitigated Performance Output (M) - a Performance Output which expresses a softening of the force of the utterance in order to soften or avoid conflict and/or it expresses consideration for the listener's point of view. It is often constructed in the form of requests for

compliance or as seeking consensus. It signals proposals rather than commands and shows no special rights over the other(s) as an Aggravated Performance Output does. It expresses that the person (persons) to whom the utterance is directed has (have) the right to reject or to disregard the statement (in this sense the rights are asymmetrical). The mitigated nature of the Act may be evidenced by the particular words used and/or intonation and/or by its being stated in the form of a question.

Examples:

"So go this way?"

"How about this?"

"We could maybe try this"

"You wanna go like that?"

"We'll go this way, okay?"

"How about this?"

"We could probably pick up points over here."

"This might be better."

"We could go up." (in some contexts, depending upon intonation. See section, below, on "clarification of distinctions between Aggravated, Mitigated, and Neutral Performance Outputs.")

Subcategories of Mitigated Speech (and their letter codes):

Mv = Mitigated Performance Output: based on the words used, or vocabulary

Ex.: "So maybe we should start over here."

"We could pick up, probably pick up, points here"

"Then we could go like this"

"If y'all really do wanna pick up those points we can go 1,2,3,4,5."

"This might be better."

Mqs = Mitigated Performance Output: based on question structure.

Ex.: "How about this?"

"Like this, okay?" (tag question)

"What about this way?"

"You wanna go like that?"

Min = Mitigated Performance Output: based on intonation only.

Note: if the structure makes it mitigated, the assumption is that the tone is probably a questioning tone, which is one kind of mitigated intonation. So this category is only scored when only the intonation, but not the structure, makes it mitigated.

Ex.: "Go this way?"

"Take a chance?"

"Go for the points?"

"We could get a lot of points here." -- In this case, if the intonation expresses softening of the force of the statement, or the actor's subjective feeling of uncertainty; that is, if it expresses more than the objective uncertainty as to how many points a particular path will result in.

(See section below, "Clarification of Distinctions Between Aggravated, Mitigated, and Neutral Performance Outputs.")

Mvqs = Combination of Mv and Mqs

Ex.: "So maybe [Mv] we should go this way,
okay? [Mqs]"

"What about [Mqs] if [Mv] we move this
way?"

"Y'all wanna [Mv] go that way, right?
[Mqs]"

Mvin = Combination of Mv and Min

Ex.: "This might [Mv] be better? [Min]"

"This could [Min] maybe [Mv] be better"

"This could [Min] maybe [Mv] be better?
[Min]"

Notes:

1. There is no category of combined Mqs and Min, because question-structured Mitigated Performance Outputs usually also have a question tone, which is one type of mitigated intonation. (See Min above).

2. Some utterances use a question structure rhetorically, to argue for the actor's idea. Such utterances are not coded as Mqs. They could be one of the other subcategories of Mitigated Performance Outputs, or they could be Neutral, or Aggravated, depending upon context and intonation clues.

3. If an Act has both Min and Mqs in two separate phrases, it is scored as a Mqs. Example: "Same move, same way?" = Min "You wanna go the same way?" = Mqs

=====

3. Neutral Performance Output (N) - a Performance Output which in its intonation and words expresses a view of the parties having symmetrical rights with regard to each other. There is no expression either that the other actors have a right to reject this Performance Output nor that the other actors do not have that right. Examples:

"We should go like this." "We need to get more points." "Let's go this way." "Over here, then up there--take the long way." "Yeah, we still need some more points." "Over here is better because there's

more points." "Let's go up." "We should go up." "We could get a lot of points over here."

=====

4. Action Opportunity (AO) - a socially distributed chance to perform, in the form of a question or statement seeking the input of others. Note that some Mitigated Performance Outputs (Mqs and some Min) also seek the input of others. The distinction between the two categories lies in the fact that an Action Opportunity is scored only when the act is not part of a Performance Output (a task-relevant statement that moves the task forward toward the goal) and does not include, or suggest, an opinion about any Performance Output or about the question being asked. Examples:

"What do you think?"	- Action Opportunity (AO)
"Okay?"	- Action Opportunity (AO)
"Do you agree?"	- Action Opportunity (AO)
"How many we have left?"	- Action Opportunity (AO)
"How many we have left, ten?"	- Mitig. Perf. Out. (Mqs)
"We have ten left?"	- Mitig. Perf. Out. (Min)
"Let's go here, okay?"	- Mitig. Perf. Out. (Mqs)
"How about if we go this way?"	- Mitig. Perf. Out. (Mqs)

=====

Simple Positive and Simple Negative Reactions/Evaluations

(Categories 5 & 6)

5. Simple Positive Reaction/Evaluation (+) - an act which consists only of one word (that word may be repeated) such as "yes" or "yeah" or "uh-huh" or any other such simple word of affirmation and which agrees with or raises the status of a previous act or actor. (The only exception to the one-word rule is that it may include the name of an actor, e.g., "Yeah, Mary.") It must unambiguously refer to another actor, or to another actor's act, and not to the actor's own previous act or thought. If it does not unambiguously refer to another actor, or to another actor's act, or if it refers to the actor's own previous act or thought, or if it is not relevant to what course of action should be taken, it is not considered an act and is coded as an "Other Task-Related Utterance," defined below.

6. Simple Negative Reaction/Evaluation (-) - an act which consists only of one word (that word may be repeated) such as "no" or "uh-uh" or any other such simple word of negation, and which disagrees with or lowers the status of a previous act or actor. (The only exception to the one-word rule is that it may include the name of an actor, "No, Mary"). It must unambiguously refer to another actor, or to another actor's act, and not to the actor's own previous act or thought. If it

does not unambiguously refer to another actor, or to another actor's act, or if it refers to the actor's own previous act or thought, or if it is not relevant to what course of action should be taken, it is not considered an act and is coded as a "Non-Act Task-Related Utterance," defined below.

=====

Clarification of Distinctions Between Aggravated,
Mitigated and Neutral Performance Outputs

Use of the First Person Plural.

Part of Goodwin's operational definition of mitigation was the use of the first person plural, for example, the word "we" (as in "we should do this" or "let's do like this"). This was an expression of mitigation for Goodwin's subjects because it referred to the needs of the situation, rather than just the desire or demand of the speaker, and it implied the need to work together or at least agree on a course of action.

In that study, the children were working in an informal play activity on a task which did not (by its internal structure or conditions, or by any externally imposed structure or conditions) require them to cooperate or to agree on how to proceed. In contrast, the task used in the present study did, by both its internal and external structure and conditions, require the children to cooperate and come to agreements; they

were seated together around one playing board, they were told that they had to agree on each decision they made, and they each received a reward only if the team won the game. No actor could, on his or her own, without consensus, get the Host to place the paper clips on any path. So, the task conditions "pushed" actors to use the first person plural (e.g., "Let's do this" or "We should do this"). Therefore, the use of the first person plural did not, by itself, call for coding a Performance Output as Mitigated.

Future Tense or other References to the Future.

In Goodwin's research, mitigation was often constructed as suggestions for action in the future, for example, "We could" or "Let's." In the present study, the structure and conditions of the task were such that the discussion was, by necessity, explicitly about what they would do in the future, on that turn and on the next turns. Therefore, in this study the use of the future tense, or other reference to what could or should be done in the future, was not, by itself, sufficient to code a Performance Output as Mitigated.

Conditional Words and Phrases.

In Goodwin's study, conditional words and phrases, such as "This could be," "We could," or "This might" were usually interpreted as mitigated. However, in the present task, the use of conditional words or phrases was

often simply a reflection of the fact that the actors in fact had no control over an important aspect of what would happen--what number the Host would roll on the dice. That is, there was a large element of uncertainty, imposed by the task structure and conditions, about what the consequences of their decisions would be.

Therefore, the operational definition of mitigation needed to distinguish between expressions of uncertainty about objectively uncertain outcomes, and expressions of uncertainty about subjectively "uncertain" outcomes that had mitigating intent (i.e., to soften the utterance, to avoid conflict). Thus, in the conditions of the present study, phrases such as "this could be," "we could," and "this might" often merely reflected the objective uncertainty imposed by the task, not subjective uncertainty intended to soften or avoid potential conflict. Thus phrases such as "We could get lots of points this way" were usually coded as Neutral because the speaker really could not know that they will get lots of points this way."

In other contexts, conditional words and phrases did express mitigation. For example, "We could go like this" or "We might go like this" were scored as Mitigated because, unlike in the previous examples, the uncertainty or conditionality was not imposed by the task, but was, instead, subjective--"injected" by the actor.

In contrast, "We're going to get a lot of points this way" is an assertion that, in most situations, expresses greater certainty than the speaker is objectively "justified" in having, since there are low and high points and "minus" and "plus" points on almost any path a team may choose. Such a phrase was coded as an Aggravated Performance Output. (If, however, the path that the speaker was referring to did, in fact, have only high points on it, this was scored as Neutral, not Aggravated, unless the utterance expressed certainty that they would be taking that path before the speaker obtained the agreement of at least two of the other actors.)

Finally, when an utterance included expressions of both objective (task-imposed) and subjective conditionality or uncertainty, the act was coded as Mitigated. Examples:

"We could maybe get a lot of points."

"We could, I think, get a lot of points."

"We could probably get a lot of points."

Here, "could" expresses objective conditionality, or uncertainty, and "maybe," "I think," and "probably" express subjective conditionality, or uncertainty or softening of the force of the utterance.

Intonation

"We could get a lot of points here" or "We might get a lot of points here," although usually coded as Neutral (as explained above), could instead be coded as Mitigated if their intonation expressed a softening of the force of the statement or consideration for the listener's point of view. Often this was expressed by emphasizing the word "could" or "might" in a particular tone, or by expressing the whole utterance in a questioning tone. Note that emphasis on the words "could" or "might" was also sometimes done in a tone which expressed an increase in force, or aggravation, not mitigation. The deciding factor is the tone of the emphasis, not the emphasis per se. Thus, these examples could be Mitigated, Neutral, or even (more rarely) Aggravated, depending upon intonation:

"We could get a lot of points here."

"We could get a lot of points here?"

"We might get a lot of points here."

"We might get a lot of points here?"

"We could get a lot of points here!!"

There were other distinctions made by intonation, interpreted in context. These are illustrated below:

"Let's go up!" - Aggravated (Ag). If the tone and context suggested that it is functioning was an imperative or a command.

"Let's go up."	Neutral (N).
"Let's go up?"	Mitigated. (Min)
"Wait!" or "Wait"	Aggravated (Ag). If the tone and/or context suggested that it was functioning as an imperative or command.
"Wait."	Neutral (N). If the tone and context suggested that it expressed a belief that another actor or the team should wait, but not that they were expected wait.
"Wait."	Non-Act Task-Related Utterance (T) (see definition below). If the tone and context suggested that it was addressed to the actor himself or herself, as if the actor were saying to himself or herself, "Wait a minute, I want to think about that."

=====

Part II - Definitions of Utterances Which are Not Acts

1. Non-Act Task-Related Utterance (T) - a task-related utterance which does not fall into any of the six categories of Acts. (Often, but not always, these are utterances which appear to be addressed to the actor himself or herself.)

Examples:

"Oh boy!"

"Three!" As when calling out the number that appears on the die.

"Sixty!" As when calling out the number landed on.

"Yeah." In certain contexts when these were not or clearly Positive Reactions/Evaluations

"Mmm." because they did not appear to be addressed to or refer to another act or actor.

"Wait." (See above.) When the tone and context suggested that it was addressed to the actor himself or herself, as if the actor were saying to himself or herself, "Wait a minute, I want to think about that."

"One, two, three, four..." etc.

Usually this kind of counting aloud was a Performance Output, because it was usually used to refer to or make some comment about a possible course of action. However, this counting was coded as a "T" when it did not fit the definition of an Act because it appeared to be addressed to the actor himself or herself.

2. Incomplete Interrupted Utterance (I) - an utterance which appeared to be relevant to what course of action should be taken, but was interrupted by another actor and

was not resumed after the interruption and was not complete enough at the time it was interrupted to meet the definition of an Act.

3. Uncodable Utterance (U) - an utterance whose meaning could not be unambiguously discerned, usually because the words were partly or completely inaudible or unidentifiable, and that did not convey enough information or meaning to be coded in any of the six categories of acts. It may either have been task related or it may have been unclear whether or not it was task related (however, if it was definitely not task related, then it was coded as a Non-Task-Related Utterance--see below). Exception: If the person was speaking and the words were inaudible or unidentifiable but he or she was pointing to a specific path, or Pointing and Counting ("P&C"--see definition under Rules for Transcription), it was coded as a "Non-Act Task Related Utterance" (see above).

4. Non-Task-Related Utterance (X) - An utterance which was not task-related.

5. Utterance Directed to the Experimenter (E) - Any utterance directed to the Host or to the camera operator. (Exception: Some utterances directed to the Host were coded as Aggravated Performance Outputs [see definition above].)

=====

PART III - Influence Attempt Coding

Influence Attempt Coding did not code any additional behaviors which were not included in the coding rule for Acts (above). It was an additional code that was assigned only to certain Performance Outputs, and not to any other kind of utterance or to any gesture.

Successful Proposal (Ps) - A Performance Output which was the initial proposal, in any given turn, of the path that was eventually followed on that turn.

Defense of Successful Proposal (Ds) - A Performance Output which defended (reinforced or argued for) the Successful Proposal during a given turn.

Unsuccessful Proposal (Pu) - A Performance Output which was the initial proposal, in any given turn, of a path that was not eventually followed on that turn.

Defense of an Unsuccessful Proposal (Du) - A Performance Output which defended (reinforced or argued for) an Unsuccessful Proposal during a given turn.

Note - The concept of a proposal's "eventual success" was limited to a particular turn. If a proposal made during a particular turn was not followed on that same turn, it was considered unsuccessful, even if it was followed on a subsequent turn.

There was only one exception to the rule that Influence Attempts were only coded for Performance Outputs (and not for any other kind of utterance or gesture). This is when an actor traced a path with her or his finger(s) to make a Successful Proposal. The limited conditions under which tracing a path was coded as a Successful Proposal are described in the Transcription Rules. (Note that this gesture was still not coded as a Performance Output because it was not an utterance.) It was extremely rare that a Successful Proposal occurred in this form, as a gesture alone. Tracing a path was nearly always accompanied by an utterance, and then the utterance was coded as a Neutral, Aggravated or Mitigated Performance Output and, if appropriate, assigned an Influence Attempt Code.

APPENDIX B

Rules for Transcribing

These are the rules for transcribing as given to the transcribers.

Talk Column

1. In the "Talk" columns, record all oral utterances, including both words and sounds (like "uhh" "mmmmmm").
2. From wherever you start writing an utterance, just write it and take up as many lines as necessary to complete it. There is no set number of words that goes on each line.
3. Match up utterances that are said simultaneously by different team members by putting them on the same line. When one person starts speaking first and then another person starts; the second person's utterance should be written starting at the line and location in their column which corresponds to the line and location in the first person's column where what the first person was saying at that moment is written.
4. Showing where one person's speech began relative to another's is more important than showing exactly where it ended relative to the other's speech. For example, although it is important to try to show as accurately as possible when speaker B's utterance started (relative to speaker A's that had already

begun) it is not necessary to line up the words in the columns to show exactly what speaker B was saying at the moment that speaker A said her last word. It is only necessary to make an effort to do this for the ending if one person's speech went on for three or more words after the first one had stopped. If so, it should be shown on the transcript in the following way: The speech that ended later should end on a later line (or further to the right on the same line) than the speech that ended some words earlier. But it's not necessary to show exactly which words were said after the other person had stopped; just show that one went on after the other. And, remember that this is only necessary if it went on for three or more words after.

5. When no one speaks for about 10 seconds or more, skip a line before the next speech to show that some time has elapsed.
6. Sounds that are not speech are enclosed in square brackets []. Example: [laughs]. But not: uh huh -- because even though uh huh is not a word it is speech.
7. Certain utterances which are hard to write out phonetically but which have a meaning which is unambiguous just from hearing them or because of some clear accompanying gesture (such as a head nod, "yes"

or "no") should be spelled out as closely as possible, followed by an explanation in square brackets. Example: Nn nn [no] or Uh huh [yes]. But do not make these explanations/interpretations based on any inferences from the general context. If it's just something like "Mmmmm" and there is no clear, unambiguous meaning, just write it without any explanation. So you shouldn't add some explanation after it like [I'm thinking] because that would involve too much of a guess or interpretation on your part.

8. When you are not sure what was said, put the words in parentheses.

Example: If we (go up) like this maybe we'll get points. If uncertain, do not guess based on the context. Only put in words if you think that is really what you may have heard.

9. When you truly have no idea of what was said, indicate this with empty parentheses.

Example: If () then we should (). Example: For a complete utterance that is unintelligible: ()

Try to indicate how long the speech lasted by the size of the space between the parentheses. The location and space between the parentheses should also correspond to the location of any other speech

that team members are doing at that same time (as in number 3 above).

10. Whispered utterances should be enclosed in "pointy" brackets < >. Example: <Maybe like this>
Whispering is soft speech with extra breath, not vocalized (that is, with no vibration of the vocal cords).
11. When speech is both whispered and inaudible (or you're not sure what they said) use the "pointy" brackets on the outside and the curved brackets on the inside. Example: <(Maybe like this)>. Or other variations, such as: <Maybe we () now>
12. When a speech is done in a questioning tone, put a question mark at the end of it, even if the words themselves do not make it a question. Example: This way? Of course, you should also put a question mark at the end of any speech that is a question because of the words (even if the person didn't use an obviously questioning tone). Example: Should we go this way?
13. When a speech is done with a very strong, emphatic tone, put an exclamation point at the end. Example: We'll never make it that way!
14. Underline any word(s) that are said with especially strong stress, or when the stress appears to convey

an essential aspect of the meaning. Example: No,
this way.

Gestures Column

To whom.

I.

In the gestures column, whenever a utterance was not addressed to the group as a whole but to one or two team members, it should be noted to whom it was addressed. This is indicated by the number sign, followed by the number of the person(s) to whom the utterance is addressed. If it is addressed to the Host or camera operator, indicate this with the capital letter E.

Examples:

Addressed to actor number 1: #1

Addressed to actors 2 and 3: #2 & #3

Addressed to the host or camera operator
 (experimenter): E

Cues that may be used to determine this are: Use of the other person's name; physical gesture such as pointing to that person; eye movements of the individual.

If it is not possible to unambiguously score to whom a utterance (or Head Nod) was addressed, it is considered to be addressed to the group as a unit, and no notation is made on the transcript.

Note: Often for team members in seating positions #1 and #4 (who sit facing each other) it is not always easy to tell if they are directing a speech or head nod to one another or are just facing that direction because of their seating position. Do not count them as directing their speech (or head nods) to one another unless there is clear evidence, using the above-listed cues as guidelines.

Note: Only Utterances and two kinds of gestures, Head nods --Yes and Head nods--No, may be scored as directed to someone. The other two kinds of gestures, Pointing and Pointing & Counting, are never scored as directed to someone.

II.

It is very important to show if the entire utterance or only part of it was addressed to a particular person. If the complete utterance (from when the person began to when they finished speaking) was directed to the same person, just put the number or letter (1, 2, 3, or 4 or E) in the gestures column at the beginning of the utterance. (See the first example below.)

When only a section of the utterance was directed to a particular person, place the number or letter in the Gestures column on the line where that section began and put a bracket in the Gestures column running up and down

next to the corresponding lines in the Talk column. (See second and third examples below.)

Examples:

Talk Column

Gestures Column

That's no good. We
gotta go up.

#2

We need to go this way
because we need more
points.

How about if we go up
this way and then turn
like this?

[#1

[

[

So if we go like this,

whatta you think?

[To # 3

Over here?

[

We need to get more
points.

Note also in the second example above that in order to show where in the utterance it began to be directed to someone, the word "How" was written starting on a new line. If it had been written on the line above, following the word "points," and the #1 had been placed on that line, it would not have been clear that it was

only at the word "How" that the utterance began to be directed to #1. Similarly, in the third example, in order to show where in the utterance it was no longer directed to # 3, the word "We" was written starting on a new line. It is necessary to indicate it this way because the Gestures column is not as wide as the Talk column so it is not possible to show this by where in the column the number is written.

Categories of Gestures to be Recorded

Only certain specific categories of gestures are to be recorded. These are listed below, preceded by the abbreviation to be used to indicate them in the gestures column.

P - Pointing

P&C- Pointing and Counting

Y - Head nod--yes

N - Head no--no

When more than one gesture occurs at the same time, they are separated on the line by slashes.

Example: P/Y

Example: Y/#4

The following are definitions of the above four categories of gestures:

Pointing.

This is scored when a subject indicates a specific path or a specific place on the board by tracing or pointing to a path or pointing to a specific place. In

almost all cases pointing is scored only if the person touches the board at the place or path being indicated. "Pointing" may be scored without their touching the place they are indicating only if their hand is directly and closely above and pointing to a specific place or path. This must be more than a wave in a general direction. For these non-touching "pointings" the principle to follow is: when in doubt, do not score it.

Pointing and Counting.

This is scored when the person points one by one to contiguous squares along a path--one square, the next square, the next, etc. and is clearly counting, but without any accompanying "counting" verbalization ("1, 2, 3, 4," etc.).

Note that the P&C score is rare, because this kind of pointing (one-by-one to contiguous squares along a path) usually occurs accompanied by and in coordination with verbal counting, i.e., "1, 2, 3, 4, 5, 6." When it is accompanied by verbal counting, no special indication is made in the "Gesture" column to show that it was "pointing and counting." Just a "P" is placed in the "Gesture" column, and the verbalization ("1, 2, 3" etc.) is written in the "Talk" column. When the transcript is read, the entries in the two columns, taken together, will be understood to mean that the pointing was of the "pointing and counting type."

However, when this kind of pointing occasionally occurs with no accompanying verbalization, or with some different verbalization (other than counting out numbers), then the "P&C" score is used to make clear how the person was pointing.

Head Nod--Yes.

This is simply an up-and-down head nod which unambiguously appears to the transcriber as the standard "yes" gesture. (It does not matter whether or not it appears that any team members saw it.)

Head Nod--No.

This is simply a side-to-side head nod which unambiguously appears to the transcriber as the standard "no" gesture. (It does not matter whether or not it appears that any team members saw it.)

For all of the above gestures, Pointing, Pointing & Counting, Head Nod--Yes, and Head Nod--No, use square brackets [] in the same way as described above for the "To Whom's." In other words:

If the gesture occurred/went on during every line of the utterance, just put the letter in the gestures column on the line where the utterance began. However, when the gesture occurred during only a section of the utterance (during some lines, but not other lines) place the letter

in the gestures column on the first line where it occurred, and then indicate where it began and ended by putting a square bracket in the gestures column running up and down next to the corresponding lines in the Talk column.

Note. The transcriber will occasionally see other gestures which have social meaning, such as smiling, clapping hands, slapping hands with another team member ("high fiving") etc. None of these are to be transcribed.

Time Column

The time should be recorded at the following points:

- at the moment the game begins (when the host finishes giving the instructions and tells them to begin)
- at the beginning of each turn (see definition below)
- at the end of each turn (see definition below)
- at or near the top of each page of transcription
- at or near the bottom of each page of transcription

The time at the beginning and at the end of each turn should be circled.

Beginning of a turn.

This is defined as the moment (after the throw of the die and the marker has been moved to the new square) when the number of points on the new square is called out correctly and the others have heard it or seen the number.

Usually this is when the host says the number. In other words, even if an actor says the number before the host does, the turn usually is counted as beginning when the host says the number.

There are only a few exceptions to this-- circumstances under which the beginning of the turn is when an actor says the number. These exceptions are the following:

1. When the host delays in saying the number for more than five seconds after an actor has said it loud enough for the others to have heard: the turn starts when that actor said the number.
2. When an actor says the number before the host does (loud enough for the others to have heard it), and then, still before the host says the number, an actor says something about what they should do on the next turn: the turn starts when the actor said the number. The reasoning behind this is that if an actor is already talking about the next turn, the last turn has

already ended, at least in that child's mind
(and probably in the other children's minds)
even if the host has not yet said the number.

These are the only two circumstances under which the turn may be considered to begin when an actor calls out the number, before the host does.

In summary, the beginning of the turn is either (and usually) when the host calls out the number on the square that has been landed on, or, in certain special circumstances (detailed above), when an actor calls out the number first, loud enough for the others to have heard it.

Note that sometimes the response may take a few seconds to say. The time should be recorded as the second that the number has been completely said.
Example: The host says, "You get 150 points." Record the time as the second when the host said the last part of the number, "...fifty." However, this does not have to be absolutely precise. Just try to get it as close as possible to the end of the number. Just be sure the time is recorded at some time during the response. Do not spend inordinate amounts of time getting the exact second. A difference of two or three seconds in the starting time of a turn is unimportant.

End of a turn.

The end of a turn is defined as the moment when the last response is given to the host's last question, usually a variant of one of these: "Do you want to discuss it any more?" or "Do you all agree?" or "Are you sure?" (Hosts may not all say all of these questions, or all in this order, but look for whichever of these questions is last before the host asks them to show him/her the path.)

Note that both verbal responses (such as "Yes" "Yeah we're sure" or "No" "No, we don't want to discuss it any more") and Head Nods ("Yes" or "No") may be counted as the last response for this purpose.

Also note that it is not necessary to wait until all four team members have responded to the last question. Sometimes not all four do respond. In other words, the last response means simply that--the last response that is given. (Sometimes it will be a simultaneous response by several team members.)

If the response takes more than a second or two (example, "Yeah, we're sure that's the way we want to go") try to record the end-of-turn time as the time when the response was finished. However, this does not have to be absolutely precise. Just try to get it as close as possible to the end of the response. Just be sure the time is recorded at some time during the response. Do

not spend inordinate amounts of time getting the exact second. A difference of two or three seconds in the ending time of a turn is unimportant.

Coding Column

Recording the initiator of the successful suggestion/proposal.

The transcriber should record, on each turn, who the person was who first proposed the path that is eventually chosen on that turn. This is called a Successful Proposal. There is only one per turn. These suggestions will almost always be verbal. The only gesture that may be counted as the Successful Proposal is Pointing, defined according to the rules above. Most of the times a person is Pointing, they are also speaking, and so their utterance can be counted as the Successful Proposal. On the rare occasions when Pointing is not accompanied by speech, the Pointing itself can be counted as the Successful Proposal if the actor clearly pointed not just to a specific place, but to a specific path (the complete path) he or she was suggesting.

Recording procedure: The person who made the Successful Proposal should be recorded in the last column of the page, and on the line where that proposal is made. When the Successful Proposal is verbal (accompanied or not accompanied by pointing), the number of the actor who

did it should be placed in the far right column of the transcript page, on the line corresponding to the occurrence of the utterance. When the Successful Proposal was made by Pointing alone, a P should be placed in the far right column next to the number of the person who did it.

APPENDIX C

Transcript of Audio Recording of Game Instructions

Note: The parts of these instructions which were read by a male are designated with the letter "M"; the parts read by a female are designated with the letter "F." The two recordings, one by the black male and female and one by the white male and female, were both read from this script.

(M) This is a game called Start to Finish. You're going to play it together. We're going to explain the game to you now.

(F) First of all, to win, remember two rules. One: work together. That means that you must make all decisions as a team, together. Two: You have only 14 turns with throws of the die to reach the finish line. On each turn you will move either one, two, three, four, five, or six squares, depending on what the die says.

(M) Of course you will want to get to the finish line and at the same time score as many points as possible along the way. You have to start at the starting point, but from there you may choose any path or direction--frontwards, sideways, turning, backwards--any direction you decide upon together.

(F) For each move you must indicate six squares. When you have decided which path to take, tell the Host you are ready, and he or she will mark the path you have chosen with the paper clips, and the Host will throw the die to see how many squares you get to move. Then one of you will move the red marker as many squares as the die says, right along the path you already chose.

(M) You don't have to get to the finish line on an exact throw of the die. For example, if you have only three squares to go to the finish line, you can cross the finish line with any number on the die that is three or higher.

(F) Here are a few hints to help you score points. The first thing to notice is that there are two different kinds of numbers in the squares--the green numbers are plus points, and the red numbers are minus points. When you land on a green number, you win points; when you land on a red number, you lose points.

(M) The next thing to notice are some special squares. One kind are the red squares which have an "X" across them. If you land on one of these, you lose points and a turn. The others are the special green squares with the circle around the number. If you land on one of these, you win points, and you get an extra turn.

(F) The next thing to remember is that you can score more points as you move farther from the center of the board. There is also a special path to reach the finish line quickly--the yellow squares in the middle, and it is called the hot line. It is the quickest way to get to the goal, but it has more red numbers so you take a big risk of losing points if you use it. But, if you have almost used up your 14 turns and have to get to the finish line quickly, then you might want to use it anyway.

(M) Remember these main rules: One: You must make all decisions as a team

(F) Two: To win the game you must get to the finish line in fourteen turns or less. If you do, and your team scores at least three thousand, seven hundred points, each team member will receive a cassette.

(M) Three: Green squares win points; red squares lose points. Four: Green squares with a circle win points and an extra turn. Red squares with an "X" lose points and a turn.

(F) Also, you may follow any path in any direction in order to get to the finish line. The farther you move from the center of the board, the more points you can score, but the farther away you get from the goal. The "hotline" can help you to go more quickly.

(M) Remember, the host will throw the die and will place the paper clips for you on whichever path you choose.

(F) If you win the game (get to the finish line in 14 turns or less) you each get a souvenir of your victory. If your team also scores three thousand seven hundred points or more, you win a cassette.

(M) But remember, if you don't get to the finish line in 14 moves or less, you lose the game, and you don't get any prize, no matter how many points you had.

(F) To help you remember these pointers, we have written them on a poster. You may look at the poster during the game if you have a question.

(M) Remember, you must make all decisions as a team. Usually it is easier to plan your path one move at a time, so don't think that you have to plan your whole path at the beginning.

(F) For each turn, as soon as you have decided on your next six squares you'll tell the host and she or he will lay out the paper clips and then throw the die. Now your host will answer any questions you may have.

APPENDIX D

Demographic Questionnaire

Name _____ School _____

Mother's Occupation: _____

____ Don't know

____ Lives with me

____ Does not live with me

Father's Occupation: _____

____ Don't know

____ Lives with me

____ Does not live with me

1. **Mechanic or Repairer:** such as automobile mechanic, elevator installer, equipment oiler, household appliance repairer, locksmith, manager of repair department, office machine repairer, oil burner installer, radio mechanic, telephone installer, watch repairer.
2. **Craft or Precision Worker:** such as apprentice plumber, baker in bakery store, boilermaker, bookbinder, bricklayer, cabinet maker, carpenter, chief electrician, dental laboratory technician, drilling superintendent, home builder, machinist, miner, patternmaker, shoe repairer, stationary engineer, tailor, upholsterer, water treatment plant operator, well digger.
3. **Machine Operator or Assembler:** such as factory machine operator, furnace operator, laundry machine operator, motion picture projectionist, photoengraver, printing machine operator, production line worker, typesetter, welder.
4. **Transportation Worker:** such as bridge tender, delivery route manager, delivery truck driver, locomotive engineer, parking lot attendant, railroad conductor, railway signal tender, sea captain, taxi driver, tractor-trailer driver.
5. **Material Moving Worker:** such as crane operator, earth moving equipment operator, fork-lift operator, loading dock supervisor, operating engineer.
6. **Agricultural, Forestry, or Fishing Worker:** such as breeder, commercial fisher, farm manager, farm supervisor, farm worker, farmer, fish hatchery worker, fishing boat captain, forester, gardener, head groundskeeper, hunter, logging contractor, lumberjack, plant nursery worker, produce grader, rancher, zoo keeper.
7. **Handler, Helper, or Laborer:** such as car washer, construction laborer, factory laborer, freight handler, landscape helper, machine tender, machinist's helper, mechanic's helper, miner's assistant, packer, plumber's assistant, refuse collector.
8. **Private Household Worker:** such as children's nurse, cook, housekeeper, servant.
9. **Personal Service Worker:** such as baggage porter, barber, bartender, beauty shop manager, counter attendant in luncheonette, exterminator, head housekeeper in hotel, head usher, hospital attendant, janitor, kitchen worker, passenger elevator operator, restaurant cook, soda fountain manager, usher.

continued

Your Place of Birth _____

Mother's Place of Birth _____

Father's Place of Birth _____

-
- 10 **Protective Service Worker:** such as chief jailer, court officer, fire captain, fire fighter, fire marshal, fire warden, police officer, police sergeant, prison guard, private investigator, school crossing guard, security guard, sheriff.
 - 11 **Armed Forces Member:** such as Air Force sergeant, Army colonel, Coast Guard captain, Marine private, Navy lieutenant.
 - 12 **Professional:** such as architect, artist, athlete, city planner, college professor, computer systems analyst, dentist, dietitian, entertainer, grade school teacher, guidance counselor, land surveyor, lawyer, mathematician, minister, pharmacist, physical therapist, physician, professional engineer, registered nurse, school librarian, scientist, social worker, writer.
 - 13 **Technician:** such as airplane pilot, air traffic controller, broadcast engineer, computer programmer, dental hygienist, electronic technician, legal assistant, licensed practical nurse, scientific laboratory technician.
 - 14 **Executive or Administrator:** such as accountant, apartment house owner or manager, budget analyst, buyer in store, construction inspector, executive, funeral director, government official, hospital administrator, management consultant, personnel worker, purchasing agent, restaurant owner or manager, school principal, theatrical agent.
 - 15 **Clerical or Administrative Support Worker:** such as baggage agent, bank teller, bill collector, bookkeeper, chief telephone operator, computer operator, expeditor, head teller, insurance adjuster, mail carrier, mailroom supervisor, meter reader, office clerk, office machine operator, payroll supervisor, secretary, teacher's aide in grade school, telephone operator, typist.
 - 16 **Sales Worker:** such as agency manager, auctioneer, cashier in store, door-to-door sales worker, importer, insurance agent, newspaper deliverer, real estate developer, sales engineer, salesperson in store, sales representative, stock broker, store owner or manager, wholesale distributor.
 - 17 **Homemaker** (for own family or self).
 - 18 **I Don't Know.**
-

APPENDIX E

Arithmetic Knowledge Test

DIRECTIONS:

Please look at these numbers:

40 100 25 2,0000 350

If you were asked to write these numbers in order from the lowest number to the highest number you would write:

25 40 100 350 2,000

Now please do the same with the following numbers:

250 1,200 500 70 120

Write these numbers in order, from the lowest number to the highest number, in the spaces below:

Arithmetic Knowledge Test - Page 2

DIRECTIONS

Look at the arithmetic problems below. We want to see if you know which ones are addition and which ones are subtraction problems. You do not have to answer them. Just put a circle around the ones that ask you to subtract ("take-away") one number from another.

$$\begin{array}{r} 3,000 \\ + 200 \\ \hline \end{array}$$

$$\begin{array}{r} 15 \\ - 10 \\ \hline \end{array}$$

$$\begin{array}{r} 1,500 \\ - 500 \\ \hline \end{array}$$

$$\begin{array}{r} 70 \\ + 25 \\ \hline \end{array}$$

$$\begin{array}{r} 375 \\ - 250 \\ \hline \end{array}$$

$$\begin{array}{r} 475 \\ + 125 \\ \hline \end{array}$$

$$\begin{array}{r} 450 \\ + 60 \\ \hline \end{array}$$

$$\begin{array}{r} 825 \\ - 60 \\ \hline \end{array}$$

APPENDIX F

Sociometric Measure

Please write the names of your three best friends in the 8th grade here at school. (Include their last name if you know it.)

1. _____
2. _____
3. _____

.....

Now answer these questions:

1. Of all the kids in your grade, which one is the most able to get other kids to do things for them? (Include their last name if you know it.)

2. Of all the kids your grade, which one is least able to get other kids to do things for them? (Include their last name if you know it.)

(You can put your name down for either of these questions if you wish.)

APPENDIX G

Prize Request Questionnaire

Please list three albums or tapes that you don't have but you would really like to have. If possible, include both the name of the artist (or group) and the name of the album (or the name of a hit song from the album).

1. _____

2. _____

3. _____

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