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THE EFFECT OF CLARITY AND AMBIGUITY OF
PROCEDURAL EXPECTATIONS UPON THEIR
ACQUISITION: AN EXTENSION OF EXPECTATION
STATES THEORY.

UNIVERSITY OF HAWAII, PH.D., 1978

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THE EFFECT OF CLARITY AND AMBIGUITY OF PROCEDURAL
EXPECTATIONS UPON THEIR ACQUISITION:
AN EXTENSION OF EXPECTATION STATES THEORY

A DISSERTATION SUBMITTED TO THE GRADUATE DIVISION OF THE
UNIVERSITY OF HAWAII IN PARTIAL FULFILLMENT OF
THE REQUIREMENTS FOR THE DEGREE OF

DOCTOR OF PHILOSOPHY

IN SOCIOLOGY

AUGUST 1978

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ACKNOWLEDGMENTS

I would like to acknowledge the contributions of the members of the dissertation committee to my research, all of whom provided considerable support and advice. Professors Harry Ball, Milton Bloombaum, and Edmund Volkart contributed many hours in training me and in guiding me through the formative stages of this research. Professor Lynn Brody contributed especially to my efforts in formulating the theory, designing the research, and in providing unselfishly of her time in reading and commenting on the many drafts of the research proposal, theory, empirical design and analysis of the data. I wish also to express my gratitude for her understanding, encouragement and support as a friend and counselor.

I also wish to express my appreciation to the Department of Sociology which provided me with laboratory equipment and space for conducting the empirical research.

I wish to thank members of the department who have supported me directly or indirectly in the research. Professor Libby Ruch advised me on experimental procedures. Dave Andrus, Gene Morse, Professors Sakumoto and Ruch

assisted me in recruitment of subjects. I wish to express my appreciation to all of the faculty, staff and fellow students of the department who have contributed to my educational experience.

I wish to thank those students who participated as subjects in the empirical research for their support and for their contribution to knowledge of human behavior.

Finally, I wish to acknowledge the love, patience and unwavering support of my wife and family during the years of sacrifice.

ABSTRACT

THE EFFECT OF CLARITY AND AMBIGUITY OF PROCEDURAL EXPECTATIONS UPON THEIR ACQUISITION AN EXTENSION OF EXPECTATION STATES THEORY

By

David B. Johnson

This research was profoundly influenced by the Expectation States Theory of Joseph Berger and associates and by Lynn Brody's work on procedural expectations and violations of procedural expectations.

The Berger and associates' influence was concerned with the concepts of status characteristics, diffuse status characteristics, and performance expectations.

In the present study Brody's conceptualization of procedural expectations is extended to include rules of the game. Here, as in Brody's work, performance expectations are assumed to precede the assignment of and are related in degree to procedural expectations.

The present study also extended Brody's theory to include the conception of acquisition of procedural expectations, acquisition being the extent to which an actor (P) adopts another actor's (O) procedural rules as his own. It was posited that where P and O's procedural rules (or expectations) concerning a task differ, P will be more apt to acquire (or adopt) O's rules in preference to his own if P holds relatively higher initial performance expectations

for O than P' (himself) and, conversely.

Another conception introduced in this work was the clarity or ambiguity of procedural rules. The theory predicted that under conditions of clarity, in which the procedural rules for the task are stated explicitly, little difference between P's and O's perception of the rules would occur. Under conditions of ambiguity, in which the procedural rules are communicated implicitly, within the context of task interaction, disagreement between P and O concerning the procedural rules is more probable. The actors are assumed to be motivated to resolve the difference between their procedural rules and in order to do so refer to their initial relative performance expectations. The differences in their rules are predicted to be resolved in favor of the actor who is seen as being initially more capable at the task.

A laboratory experiment was designed and executed in order to test the theoretical derivations. There were three independent variables, performance expectations (high and low), confirmation/non-confirmation of initial relative performance expectations, and clarity or ambiguity of procedural expectations. The dependent variables were the acquisition of procedural expectations and agreement or difference between P's and O's procedural expectations.

There was a net of twenty subjects randomly assigned to each of the four experimental conditions.

The subjects were introduced to a high or low status

confederate at the beginning of the experiment. Their task was to play a word game with their opponent. Half of the subjects were explicitly told a word-size rule and half were not. Those told the rule operated under a condition of clarity, and those not told the word-size rule operated under a condition of ambiguity of procedural expectations. Disagreement between the subjects and the confederate occurred when they used different word-size rules to construct words and/or to score each other's words. The proportion of task trials in which the subject used the confederate's word-size rule was a measure of acquisition of the confederate's procedural expectations (word-size rule).

Following the experiment, subjects were interviewed to determine their initial relative performance expectations for themselves and their opponent.

There is a discussion of the serendipitous findings, interpretation of unexpected data and some suggestions for future changes in the experimental design and extensions of the theory.

The data generally supported the predictions derived from the theory. The following conclusions seem justified:

- 1) The differential performance expectations that P holds for P' and O produce an observable difference in P's acquisition of O's procedural expectations.

- 2) The differences in acquisition of procedural expectations between the conditions are substantial and are in the predicted direction.

3) Conclusions 1) and 2) apply under conditions of ambiguity of procedural expectations but not under conditions of clarity.

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CHAPTER I

INTRODUCTION AND SYNOPSIS OF CHAPTERS

Introduction

It is quite possible that a fundamental prerequisite for survival in life involves an understanding of the procedural rules (rules of the game) in interaction situations. Despite the importance of understanding this process the extant literature does not provide a clear systematic and precise theory and/or data to enable such a comprehension. This study attempts to formulate a precise and testable theory and supporting data concerning the process of acquisition of procedural expectations.

Oftentimes the most important and yet hardest learned rules are ambiguous (implicit). Clearly stated (explicit) rules are easier to learn. How then does one learn the implicit rules of the game? In order to answer this question status conceptions are combined with conceptions concerning acquisition of procedural expectations.

Acquisition will refer here to a person's learning (becoming aware of and complying with) "the rules of the game."

The crucial questions are: When a difference between interactants' understanding of the procedural rules occurs, in whose favor is the difference resolved? When procedural rules are ambiguous (implicit), what mechanisms are involved in learning the rules?

Berger and associates (1966, 1974) have demonstrated the relationship between a person's perceptions of status difference between himself and other and consequent relevant performance expectations at a task. First, an actor assesses his relative prestige (which is based on an external status characteristic such as employer, employee, etc.) compared to other and then generalizes to ability (performance expectations) at a task. This happens even when the status characteristic is unrelated to task demands.

It is essential that the actor have no basis for assignment of expectations to himself and other than the state of the status characteristic. If there were preexisting knowledge concerning task ability there would be no need for the actor to use status conceptions in order to determine the relative task ability of himself and other.

Once the performance expectations are assigned by the actor for himself and other they will determine the prestige order in such a way that probabilities of distribution

of influence, disagreements, deference, and so forth, will be different for members who have higher expectations for themselves at a task than for those who have lower expectations.

Brody (1975, 1977) extended the formulation by addition of conceptions of procedural expectations. Essentially performance expectations (ability conceptions) and procedural expectations (rules of the game) were demonstrated to be related and related in degree. The higher the performance expectations that an actor holds for other the higher the procedural expectations that actor will also hold for other. Moreover, performance expectations are posited to precede procedural expectations. First, an actor must assess the relative status of himself and other and then he will assess his expectations for other's procedural conformity or non-conformity. As presented in earlier research (Johnson, 1977) this theory, then, adds conceptions of acquisition of procedural expectations to the above-mentioned theories and attempts to answer the previously raised question concerning how such acquisition comes about.

As in Brody's theory, the present research also predicts that performance and procedural expectations are related in degree, and that performance expectations precede procedural expectations. If an actor has higher performance expectations for other than for himself, then that actor

will expect other to have more knowledge about procedural expectations for the task than an actor who has lower performance expectations for other than for himself. If there is a difference between an actor's and other's perceptions of the rules, it is predicted that the actor who has higher performance expectations for other than for himself to consider the other more knowledgeable and therefore that actor will be more likely to accept (acquire) other's procedural expectations. Similarly, an actor who has higher performance expectations for himself than other will be more likely to consider himself more knowledgeable and therefore less likely to acquire (accept) other's procedural expectations.

In summary, the present work extends that of Berger and associates and Brody's work by adding assumptions about acquisition of procedural expectations and combining them with the conceptions of clarity and ambiguity of procedural expectations. From this extension it will be possible to construct testable derivations.

Synopsis of Chapters

Chapter II presents an historical overview of the field of social influence. It summarizes the recent developments in Expectations States Theory which is the basis for

this work. The relevant conceptions and assumptions from Expectation States Theory are incorporated into the theory, which is presented in Chapter III.

Chapter III states the formal assumptions and scope conditions of the theory which is an extension of Expectation States Theory. The theory presented here adds and defines the concepts of acquisition of procedural expectations and clarity and ambiguity of procedural expectations. Included are the theoretical derivations which are tested in Chapter IV.

Chapter IV describes the empirical study in which the derivations from the theory were tested. The experimental design, the physical setting and mechanical equipment used in the study are described.

Chapter V presents the results of the study and the analysis of the data. Included are a discussion and interpretation of the empirical findings. This chapter also includes some suggestions for improvements of the experimental design and suggestions for extension of the theory.

Chapter VI contains a summary of the research, conclusions and recommendations for future changes in the experimental design and extension of the theory.

CHAPTER II

The Process of Social Influence and Expectation States Theory

Theories of Social Influence

The effect of social influence on individual behavior is among one of the more fundamental sociological ideas. Even though this conceptualization has been formulated in slightly different ways by diverse sociologists, it has remained in the mainstream of sociological thought.

Some examples, from early European and American sociologists, are: Tarde's laws of imitation (1890); Durkheim's analysis of social solidarity (1893) and anomie (1897); Simmel's treatment of group structure and the forms of social interaction (written during the 1880s and collected, 1950); Ross's work on social control (1901); Sumner's treatise on folkways and mores (1906); and Cooley's work on social organization (1909).

Since the early part of the century, the general idea of social influence has been applied to an increasingly wide variety of social phenomena. At a macro level Thomas

and Znaniecki (1918) documented the amount of social and personal disorganization that resulted from the erosion of social control when people from a traditional society migrated to a more complex one. Park's writings on mass communication (collected 1950) and MacIver's study of political coercive control (1949) are further illustrations. At the microsociological level, there have been perhaps even more applications of the concept of social influence, particularly in the form of interpersonal influence: Mead (1934), Asch (1951), Sherif (1936), Allport (1920), Lewin (1949), Festinger (1957), Heider (1958), Thibaut and Kelley (1959), Shibutani (1961), Newcomb (1965) and Homans (1974).

In recent decades, investigation of social influence has moved in the direction of more specific concepts and models such as social cybernetics (Etzioni, 1968); learning theory (Scott, 1971; and Homans, 1974); subjective expected utility theory (Tedeschi, 1972); sociolinguistics (Rommetveit, 1955; and Cicourel, 1974); role theory (Turner, 1952, 1954, 1956; Gross, Mason and McEachern, 1957; Biddle and Thomas, 1966; Ehrlich, 1966); norm theory (Gibbs, 1956, 1972; Anderson and Moore, 1957); expectation states theory (Berger, Zelditch and Anderson, 1966, 1972; Berger, Conner and Fisek, 1974; Scott, 1971); and the codification of reference group theory (Hyman and Singer, 1968; Merton, 1968;

Schmitt, 1972). In these works, as well as Bales' (1950), the emphasis has been on the processes and mechanisms of social influence, together with a much tighter interplay between theory, method, and data than was the case with the earlier theorists, who proposed more general theories with less concern for empirical testing of those theories. The study described in this dissertation derives from the previous work in expectation states theory.

One implication of the general concept of social influence is that the behavior of individuals will be either compliant or deviant with respect to that influence. Briefly stated (and in paraphrase of previous questions by both Kant and Simmel), a central question of this dissertation is: "By what mechanisms is compliance made possible in the presence of normative influences?" Additionally, how does compliance influence the stability of the prestige and role relations in the group?

In considering the mechanisms of normative influence, several conceptual distinctions must be made. First, norms (as standards or expectations) must be distinguished from the sanctions that are attached to them (Gibbs, 1956). Norms, for example, may be permissive or non-permissive, prescriptive or proscriptive (Gibbs, 1972), and sanctions may be positive or negative (Gibbs, 1956). Second, both norms and sanctions

must be distinguished from the behavior of the individuals to which the norms refer, since they are external to the behavior and yet relate to the behavior in terms of their regulation of it. Unless behavior is observed it cannot be evaluated by others as either conforming (compliant) or deviant. On the basis of this evaluation, there will be a reaction (sanction) by others or the individual himself--positive, negative, or indifferent--depending upon the type of norm involved.

Once these distinctions have been made, it becomes clear that neither the type of norm, nor the type of sanction--alone or in combination--are sufficient to account for social influence. Unless, at a minimum, the content¹ of a norm is communicated to those to whom it is expected to apply, neither compliance nor deviance, in a strict sense, can be said to occur at all. For social influence to be effective, normative communication must be effective. Yet, remarkably little has been done or said about this mechanism of social influence.²

¹The content of a norm refers to the rule or standard of behavior itself; e.g., one must respect persons older than oneself.

²The significance of meanings and symbols in communicative exchange has been elaborated in different ways by Mead, 1934; Schutz, 1967; Blumer, 1969; and Cicourel, 1974. While their perspectives are not directed specifically

In addition to consideration of how well the norm is communicated, it is important to consider motivation (reasons) for compliance. Motives as tools of social influence can be external or internal.³ This study focuses on the motives arising from the external enforcement of norms. External enforcement can come from several sources. First, enforcement can come from the status characteristics of the enforcer; for example, knowledge of the enforcer's age, sex, race, education, etc., may motivate the norm receiver to comply because he wishes a favorable reaction from a person with certain valued status characteristics. It can come from the enforcer's ability to monitor (observe) the norm-related behavior; for instance, if the norm receiver believes his behavior can be observed by the enforcer, he may conform.

External enforcement can also come from the enforcer's evaluation of and reaction to the norm-related behavior; for example, if the norm receiver cares what the enforcer will think about him or how he will behave toward him, he may comply. Characteristics of the enforcer probably will be

to the problem of normative influence, they are applicable in principle; e.g., clarity versus ambiguity.

³An external motive would be one which comes from another person; e.g., one follows the rules only because others insist on it. An internal motive comes from within oneself; e.g., one follows the rules because he believes in them and would do so whether others insisted on it or not.

known by the norm receiver even before the enforcer's evaluation and reaction are anticipated or known. Further, even after the reaction is anticipated or experienced, its impact upon the norm receiver is affected by the status characteristics of the norm enforcer (Tedeschi, 1972; Dornbusch and Scott, 1975). For example, the importance and meaning of the reaction of the norm enforcer will be affected by the importance and value of his status characteristics such as age, sex, race, education and the like. Thus, the status characteristics of the norm enforcer are some of the first and most important elements of the process of normative influence.

Expectation States Theory

Berger and his associates have developed a theory of how status characteristics can influence the performance expectations of members of the group engaged in a task. This occurs because group members are evaluated as ". . . better or worse with respect to specific traits associated with the status characteristic . . .," and ". . . judgements of specific capacities, having become associated with the states of the status characteristic, appear to generalize very readily, so that, . . . actors come to be evaluated as wholes . . . a halo develops and becomes associated with

states of the status characteristic." (Berger, et al., 1966: 32)

In addition to the effect of status characteristics upon performance expectations is the idea that the evaluation will generalize to prestige and influence in the performance of a group task. Where an actor is evaluated as high on a given status characteristic he will possess greater prestige and influence and will be deferred to by group members who are evaluated lower on that same status characteristic (Brody, 1975, 1977). Thus, in the performance of a group task, persons evaluated higher on a status characteristic, regardless of performance on the task, are more apt to receive favorable outcomes because persons evaluated lower on that external status characteristic will feel obliged to allow the higher status person to "win," i.e., they will defer to the higher status person.

In addition, the greater influence and prestige of the higher status member will permit that member greater control over the behavior of lower status members since his reactions to the lower status members will be of greater relative importance.

In a situation where one or more group members are concerned with the enforcement of norms, if a norm enforcer possesses a higher relative status, on some status

characteristic, then his effect upon a norm receiver will be greater; i.e., the rewards will be greater for compliance and the punishments greater for deviation than if the enforcer has a lower relative status. The effectiveness of normative enforcement, then, would depend upon the relative status of the norm enforcer.

Berger and Connor's (1969, 1974) work identifies some of the factors affecting social influence. Their theory is concerned with the differential expectations created through social interaction and how evaluation of differential task performance affects an actor's acceptance or rejection of influence attempts of other group members when differences about the acceptability of performance outputs arise among the group members. Their theory essentially predicts which actors will be influenced. Actors who expect to do relatively better than others in a group on a given task were found to be less accepting of influence than actors who expect to do relatively poorer than others in a group.

While Berger and associates (1966, 1974) have linked status characteristics with performance expectations and performance expectations to acceptance of influence, no attempt (in these studies by Berger and Conner) was made to link status characteristics directly to the acceptance of social influence. Also, in the Berger and Conner work on

acceptance of influence the concept of influence is somewhat general.⁴ In order to further clarify the theory on the acceptance of influence it is advantageous to specify more explicitly the entities which are being accepted. Brody (1975, 1977) conceptualized these entities as procedural expectations which include moral as well as procedural norms and rules. This extends and improves the Berger and associate's conceptualization of sociological entities involved in the theory by including the idea of criteria (rules) of evaluation as well as reactions to compliance and deviation from the rules (rewards or punishment).⁵

As in Brody's work the present research conceptualizes these entities as procedural norms or rules. They are seen as necessary for the accomplishment of group goals, assuming the group is task (goal) oriented. Where a group is not task oriented, e.g., non-instrumental, a greater degree of ambiguity in operational rules can exist without threatening the group. In fact, a purpose of non-instrumental groups may be affiliation and support and mutual acceptance of members' differences of opinion about and ways of doing things.

⁴Berger and Conner (1974:88) discuss unit evaluations of a performance output. These, however, do not include the notion of criteria used for evaluation nor explicit consideration of positive and negative sanctions which are necessary components of norms.

⁵Dornbusch and Scott's (1975) work on the process of

In such instances, differences of opinion about procedural norms and rules are considered not only to be matters of personal taste but valued in their own right. Task-oriented groups, on the other hand, require a degree of agreement among group members about the modus operandi. The very existence of the task-oriented group is threatened when such agreement is not present. Of interest here are the mechanisms whereby such agreement, among task or goal-oriented group members, is attained and maintained.

Building upon the earlier work of Berger and associates (1966), on the effect of status characteristics on the development of initial relative performance expectations, and the Berger and Conner (1969) work on the effect of performance expectations upon acceptance of influence, this research investigates the mechanism wherein group members arrive at some level of agreement concerning their procedural rules or norms and how these rules are enforced.

Much of Berger and associates' work has described the processes involved in the formation and maintenance of a power and prestige order in groups. The present research also elaborates the process by which the prestige order within groups is maintained (Webster, 1975). It is assumed in the

evaluation discusses these entities at great length.

present study that the fact that the evaluation of group members, of each other's status characteristics and performance outputs, are consistent and stable (Berger and Conner, 1974:103) indicates that the prestigious members of the group define and enforce the procedural rules and thereby perpetuate the existing prestige order of the group, once defined. Implicit in the process by which the prestige order of a group is defined is the mechanism for alteration of the order (Berger, Conner, 1974).⁶ One of the mechanisms for change in the prestige order may be a change in the distribution of performance outputs of group members. Under conditions where these altered performance outputs contradict initial relative performance expectations based on evaluation of differential status characteristics or upon observed past performance outputs group members will tend to alter their relative performance expectations to be consistent with observed performance outputs (Berger and Conner, 1974).

Another essential notion implied by the Berger and associates' work is that of task ambiguity (Berger and Conner,

⁶Dornbusch and Scott (1975) address the mechanisms for change within unstable authority systems wherein incompatibility (e.g., contradictory evaluations) is present.

1974; Webster, 1975; Dornbusch and Scott, 1975). This raises the issue of how well-defined the procedural rules governing a task are. Where the task is unambiguous (or clear) the procedural rules are clear and it is easy to determine whether group members' performance outputs are in compliance. However, when the task is ambiguous the procedural rules are unclear it is much more difficult to evaluate whether group members are following the "rules of the game." Furthermore, the probability of disagreement among group members concerning the task rules is more likely when the task rules are ambiguous than when they are clear. This is an important consideration because it indicates that in situations where rules are unclear it is the existing power and prestige order among the group members which more likely determine in whose favor disagreements about those task rules are resolved as well as how the rules themselves are defined. Berger and Conner's work (1969, 1974) on acceptance of social influence indicates that disagreements about the acceptability of performance outputs; i.e., whether the performance of a group member is consistent with the task rules, will be resolved in favor of the member who by virtue of past interaction is judged to be a better performer. It is contended here that not only are performance expectations based on group interaction but also initial

relative performance expectations based on differential status evaluations are of considerable usefulness in predicting the outcome of disagreements among group members concerning task rules or rules of the game (Johnson, 1977).

The purpose in this research is to clarify and extend Berger and associates' theory on acceptance of social influence and Brody's work on the relationship among status characteristics, performance expectations and procedural expectations. This work will expand the concept of procedural expectation to include procedural rules and will specify the importance of ambiguity and clarity of procedural rules in the process of acceptance or acquisition of procedural rules in task-oriented groups.

Another area of interest in Expectation States Theory research has been the effect of significant others upon social interaction. Webster and Sobieszek (1974) have accumulated considerable data on the "sources of evaluation." Some of their work has dealt with the effects of conflicting evaluations by different sources. Initially, their work considered single sources of evaluation. This will also be the case in the present research. The work here will attempt to clarify the relationship of the source of evaluation of the actor by connecting the effects of the source's evaluation of an actor's performance with the source's status characteristics.

This will be accomplished by demonstrating that actors differentially accept or acquire the source's procedural rules based on their relative status characteristics.

Another area of interest to Expectation States Theory has been the evaluation process itself (Dornbusch and Scott, 1975). This process is implicit in the assignment of status in that some value is applied to different levels of the status characteristic; e.g., it is good to have a lot of education and bad to have little. In addition to this kind of evaluation are those evaluations by significant others of an actor's performance. In this instance the performance is compared with a standard which has a value. For example, if an actor performs the task quickly the performance is evaluated "good"; and if the actor performs the task slowly, the performance is evaluated "poor." One kind of evaluation of interest in this particular research is the actor's evaluation of his relative ability at a group task. Another kind is the source's evaluation of the actor's compliance with the task rules as defined by the source. Thus, not only the source's evaluation of the actor will be of importance but the actor's evaluation of the source and of himself as well. Of interest also is the effect of evaluation of performance upon evaluation of status and how these affect group interaction.

Of interest in the evaluational process is the criteria by which the evaluations are made (Dornbusch and Scott, 1975). Included in Brody's (1975, 1977) concept of procedural expectations are moral norms which are generally held by society. These criteria are more widely held than procedural norms which are specific to a given task within a situation. Criteria for procedural rules then may depend to a greater extent upon the individuals engaged in the task than are moral rules.⁷ Therefore, status characteristics of group members as well as task ability may be taken into consideration by group members (which determine the existing prestige order among group members) when deciding on the criteria to be used in evaluating the member's performance at a task. This research will be concerned with the rules or criteria of evaluation as well as with whose rules or criteria are accepted.

⁷Dornbusch and Scott (1975) make a distinction between the various aspects of participants which are evaluated. For instance, qualities of participants such as status characteristics or activities of participants such as performance or ability. Oftentimes evaluation of organizational participants is based more on their qualities than their activities; in fact, as is shown by Berger and associates (1966, 1972, 1974) qualities (i.e., status characteristics) can be used to predict activities; e.g., performance expectations.

Summary

Expectation States Theory is a specialized research program within the larger field of study of the process of social influence. As such, it consists of a set of theories and empirical research. Expectation States Theory includes a set of core concepts (Berger, 1974:12) such as: unit evaluations, self-other expectation states and structures, and the observable power and prestige order.⁸ In addition there is an auxillary set of concepts such as diffuse and specific status characteristics, single and multiple sources of evaluation, and so forth.

This work employs many of the core concepts and auxillary concepts indicated as well as additional auxillary concepts developed by Brody (1975, 1977) and by Johnson (1977). This work extends Expectation States Theory and provides an empirical test of that extension. The theoretical extension will be described in the next chapter.

⁸Berger and associates refer to the "power and prestige order" in groups. In this work reference is made only to the prestige order in groups inasmuch as prestige is explicitly manipulated as a variable and power is not.

CHAPTER III

A Theory of Acquisition of Procedural Expectations

Introduction

The following theory deals with the process of acquisition of procedural expectations. If procedural rules or expectations are communicated to actors explicitly those actors can be assumed to know what is expected of them in a given situation. This theory, however, focuses on the process by which actors acquire or learn what is expected of them in situations where those expectations are revealed implicitly, i.e., within the context of social interaction. In this kind of situation the acquisition of procedural rules is less certain than in a situation where they (procedural rules) are known, i.e., communicated explicitly, from the beginning. Furthermore, this theory argues that the acquisition of procedural expectations is dependent upon the interactant's relative status. In an interaction situation, for example, where there is a conflict between what a person (P) and other (O) believe to be expected of

them the highest status interactant's opinion will be considered most authoritative by the lower status interactant. Thus, those interactants of lower status will be more apt to "acquire" the higher status interactant's opinion of what is expected. This process of adapting P's behavior to that of O is termed "acquisition," and in the present theory we will be concerned with the acquisition of procedural expectations.

In this chapter, the scope conditions and terms of the theory will be given. The extension of Expectation States Theory will be discussed and the assumptions, definitions, and the theoretical derivations will be presented.

Scope and Terms of the Theory

The interaction situation consists of members of a group (dyad) P and O who are required to perform a valued, competitive⁹ task, T, which has only two outcomes: success or failure. The task is considered to be valid because it is assumed that P perceives the possible outcomes of the task as either success or failure and the assumption is that P is committed to success. The task is defined as competi-

⁹Brody (1975, 1977) is the only expectation states theorist who has employed competitive tasks; all others have used collective tasks.

tive¹⁰ because only one of the actors can win; i.e., succeed, and because of the ease of operationalization of a competitive task in a game situation. The theory applies only to task behavior; behavior related exclusively to social emotional relationships is excluded.

The theory is P-centric; i.e., formulated from the point of view of an actor, P, who is oriented to P' (the actor as an object to himself) and one other, O. It is P's reaction to the task situation that will be described.

A status characteristic is any distinguishing trait, quality, or property of an individual which is evaluated on one or more criteria; e.g., a young person may be evaluated

¹⁰It is assumed that acquisition of procedural expectations is more difficult under conditions where members of a group are engaged in a competitive task than when engaged in a cooperative task, particularly in a dyad where there is no opportunity for group consensus. Thus, when engaging in a competitive task, and when one member of the dyad disagrees with the other about task rules, while there are individual differences in the amount of trust persons have for others (Tedeschi, et al., 1973:150), there is less likelihood that he would trust a competitor's opinion of what is expected when it might very well place him at a competitive disadvantage (Osgood, 1960).

If, however, one of the members of a dyad were seen as having greater prestige by virtue of a status characteristic, then that person would be considered more knowledgeable or authoritative regarding the issue and his opinion would be deferred to by the lower status member (Tedeschi, 1972:302, 303).

While procedural expectations are assumed to be capable of being "acquired" in a competitive situation, the process of acquisition in a competitive situation is more difficult than in a cooperative situation. Thus, the use of a competitive task situation provides a more conservative test of the theory.

low on the criteria of life experience compared to an older person who is evaluated high.

The theory assumes that the status characteristic of P is culturally appropriate. For example, P perceives that a professor is more highly valued than a student: It is assumed that this evaluation is universal within that culture. The theory requires that there be only one status characteristic which discriminates between P and O in situation S, and that the only information they have about each other concerns this characteristic.

Evaluations of competence involve two factors: specific and general evaluations. The former refer to judgments of competence concerning specific traits associated with the status characteristic. For example, professors are believed to be knowledgeable in their fields of specialization. Specific evaluations are generalized so that they become general evaluations. Instead of saying that professors are knowledgeable in their fields of specialization, a halo effect develops, and professors become evaluated as being generally knowledgeable. This generalization process consists of an abstract definition of a diffuse status characteristic (Berger et al., 1966:33).

In the present theory, it is assumed that prestige is a diffuse status characteristic, and it is given only two

distinct states. In reality, however, there is a continuum of prestige, but for simplicity's sake, prestige will be designated in this theory as either high or low.

Performance expectations are defined as P's beliefs concerning P' and O's relative abilities at the task. Since status characteristics have been shown to affect performance expectations (Berger et al., 1966:48, 49); and since it is assumed that initially P will have to evaluate the relative capabilities of P' and O at the task (performance expectations) in order to assess his probability of success, it is essential that P have no basis for assignment of expectations to P' and O other than the state of the diffuse status characteristic. If there were preexisting knowledge concerning task ability there would be no need for P to use status conceptions in order to determine the relative ability of P' and O.¹¹ Therefore, the theory requires that members have no prior expectation for their relative ability at the task.

If, for example, P is a student and O a professor and there are no other status characteristics that differentiate P from O, then P will use the diffuse status characteristic to assign performance expectations at the

¹¹Freese and Cohen (1973) discuss how P's knowledge of performance attributes of O can eliminate P's reliance upon status characteristics in assigning performance expectations to P' and O at a task.

task for P' and O. In such a situation P usually will assign concomitant states of the status and the diffuse status characteristic. Thus P would perceive that status characteristic for O, a "professor," and the diffuse status characteristic as "prestige." If P perceives a professor as high status, then P probably will perceive the professor as able and knowledgeable because a halo effect usually develops such that the professor is considered not only prestigious but also able and knowledgeable.

This generalized evaluation of a person's ability will be referred to as a generalized expectation state. Although this construct is theoretical and not directly observable or measurable, it is important to the theory. The expectation state usually carries with it expectations for future performance and is stable throughout time. Thus, P will expect O to be competent and authoritative not only at the present moment, but also in the future and in a variety of areas, even though they may not be relevant to the task.

Once P and O interact regarding Task T and they obtain information about each other's task performance, this information will either support P's initial relative performance expectations for P' and O or it will contradict them. If P's initial relative performance expectations for P' and O are

supported by P's and O's relative task performance, then his expectations are confirmed. If his initial expectations are not supported by task performance, then they are Not confirmed.

Brody (1975, 1977) extended the Berger and associates' formulation by addition of conceptions of procedural expectations. Essentially, performance expectations (ability conceptions) and procedural expectations (rules of the game) were demonstrated to be related and related in degree. The higher the performance expectation that P holds for O the higher the procedural expectation that P will also hold for O. Moreover, performance expectations are posited to precede procedural expectations. First, P must assess the relative status (and consequently the relative performance expectations) of P' and O and then P will assess his expectations for O's procedural conformity or non-conformity. As presented in earlier research (Johnson, 1977) this theory, then, adds conceptions of acquisition of procedural expectations to the above-mentioned theories and attempts to answer the previously raised question concerning how such acquisition comes about.

As in Brody's theory, here it is also predicted that performance and procedural expectations are related in degree and that performance expectations precede procedural expectations.

It is asserted that if P has higher performance expectations for O than for P', then that P will expect O to have more knowledge about procedural expectations for the task than a P who has lower performance expectations for O than for P'. If there is a difference between P's and O's perceptions of the rules, we expect the P who has higher performance expectations for O than for P' to consider O more knowledgeable and therefore P will be more likely to accept (acquire) O's procedural expectations. Similarly, a P who has higher performance expectations for P' than O will be more likely to consider himself more knowledgeable and therefore less likely to acquire (accept) O's procedural expectations.

Assumptions and Definitions

Situation S will consist of two actors, P and O, who are performing a task. This theory does not predict O's behavior.

Definition of Situation S

A task situation S exists if:

- a. There are at least two actors, P and O;
- b. P and O are task-oriented;
- c. P and O are performing a task;

- d. P and O are competitively oriented to task T in situation S;
- e. P and O are motivated to successful completion of the task;
- f. P and O have no prior expectation for their own or each other's performance at the task;
- g. P and O initially are differentiated with respect to status; and
- h. There is only one characteristic which discriminates P from O.

Assumption 1:

Given the task condition in situation S, if P and O possess different states of a single external status characteristic, and if these states are not directly relevant to T, but if there is no other basis for evaluation, then the status characteristic will become the basis for discrimination.

Because P and O will feel a need to assign performance expectations about the task for themselves and the other; and if no other basis exists for an assignment other than the external status characteristic (male, professor, president, and so forth), a generalization process will occur and specific evaluations (e.g., professors are verbal) become generalized such that professors become evaluated as generally able.

This generalization process constitutes an abstract definition of a diffuse status characteristic. The diffuse status characteristic then becomes the basis for assignment of performance expectations.

Derivation 1a: When P is in a H-L¹² status condition, in Situation S, P will be most likely to assign H-L initial relative performance expectations to P' and O, at Task T.

Derivation 1b: When P is in a L-H status condition, in Situation S, P will be most likely to assign L-H initial relative performance expectations to P' and O, at Task T.

Berger and his associates (1966, 1974) have shown-- and it is assumed here also--that once performance expectations have been assigned by P to himself (P') and the other (O), these will determine the future prestige order of the members of the group (dyad). For instance, if P has a low performance expectation for himself (P') and a high performance expectation for the other (O) with respect to ability at Task T, and if P is committed to success at the task, P will believe that O is more likely to do well at the task, and "P will . . . make fewer attempts to influence O than will a second P who holds a high performance expectation for self and a low for the other." (Berger et al., 1966:40)

¹²The following notation will be applied throughout the remainder of the work: "L-H" will symbolize P with lower

It is assumed that the above statement applies to this theory; i.e., once the performance expectations are assigned by P for P' and O, they will determine the prestige order such that the distribution of influence will be different for persons who have a higher expected ability for themselves at a given task than those who have a lower expectation.

Assumption 2:

When procedural rules are more ambiguous (implicit) there will be greater disagreement between P's and O's procedural expectations at the task and when the procedural rules are clear (explicit) there will be less disagreement between O's and O's procedural rules.

Derivation 2: P and O's procedural expectations for Task T, in Situation S, will agree more when the task rules are clear (explicit) than when they are ambiguous (implicit.)

Assumption 3:

Berger and associates posited (1966) that the external status characteristic is generalized so that a high

status or performance expectations than O, and "H-L" will symbolize P with higher status or performance expectations than O. This notation is consistent with that employed by Berger and associates.

status person is considered not only able but also moral, honest, and so forth. Brody (1975) formulated the concept of procedural expectations which includes both moral and procedural norms. Her work demonstrated the relationship among external status characteristics, performance expectations (expectations of ability), and procedural expectations (moral norms). Brody's theory states that performance expectations precede and are related in degree to procedural expectations. Procedural expectations in the present research are expanded to include procedural rules; i.e., rules of the game as well as moral norms.

Performance expectations are related to procedural expectations in such a way that when P perceives O as able regarding a task (T), he will also perceive O as knowledgeable regarding the procedural rules governing that task.

Assumption 4:

When P perceives differences between P' and O concerning procedural expectations, P's acquisition of O's procedural expectations (rules of the game) will be related in degree to P's performance expectations for P' and O.

Berger and associates posited that the diffuse status characteristic carries a halo effect such that a high status person will be considered not only able but also knowledgeable,

moral and so forth such that, "if . . . P believes that O is better at the task, he will defer to O's suggestions."

(Berger et al., 1966:44; see also Mills, 1969:265) Thus, it is asserted here that in a task situation where P has higher performance expectations of O than for P' and P perceives differences between P' and O concerning the procedural expectations for Task T, P will be more likely to accept O's procedural expectations than his own; i.e., P will acquire O's procedural expectations. Conversely, if P has higher performance expectations for P' than for O, P will be less likely to acquire O's procedural expectations.

Derivation 3a: When P perceives differences between P's and O's procedural expectations, and if P has higher performance expectations for O than for O' (L-H), P is more likely to acquire O's procedural expectations.

Derivation 3b: When P perceives differences between P's and O's procedural expectations and if P has higher performance expectations for P' than for O (H-L), P is less likely to acquire O's procedural expectations.

The process is more complicated than what has been presented thus far. Ambiguity and clarity of procedural expectations complicate the matter. The clearer the expectation is, the less likely that P will have to resort to others as a source of information. When procedural

expectations (e.g., rules of the game) are explicitly stated (made known to the interactants directly prior to their performance of the task), there will be less uncertainty and disagreement among the interactants than under a condition where the procedural expectations are ambiguous (implicit). In the latter situation, there is a "greater tendency for the subject to depend on or look to others as a source of information." (Mills, 1969; see also Festinger, 1957)

Assumption 5:

The more ambiguous the procedural expectations in Situation S, the more important assessments of initial relative performance expectations become in the process of acquisition of procedural expectations.

Derivation 4a: If P has higher performance expectations for O than for P' and the procedural rules are ambiguous, P will be more likely to accept O's procedural expectations.

Derivation 4b: If P has higher performance expectations for P' than for O and the procedural rules are ambiguous, P will be more likely to accept his own procedural rules.

Assumption 6:

In task situations where the procedural rules are clear we expect that P will refer less to others to determine what the rules of the game are, and thus P's relative performance expectations for P' and O will have less effect upon P's acquisition of the rules than when the procedural rules are ambiguous.

The clearer the procedural expectations in Situation S, the less important assessments of initial performance expectations become in the process of acquisition of procedural expectations.

Derivation 5: If the procedural rules are clear, P will be as likely to accept O's procedural rules when P has higher performance expectations for O than for P' as when P has higher performance expectations for P' than for O.

Assumption 7:

If initial relative performance expectations based on prestige differences are not confirmed by the relative performance of P and O at Task T, either P's initial relative performance expectations will remain stable or they will change to become consistent with observed relative performance of P and O. Webster (1975:155) maintains that "Expectation states once formed, tend to persist even in the

presence of contradictory information," and " . . . once people form ability conceptions of each other, their beliefs tend to persist, and they determine the power and prestige structure of the group." (p. 154)

It is assumed here that P's initial relative performance expectations for P' and O will remain stable regardless of the confirmation or non-confirmation of those expectations by P's and O's relative performance at Task T.

Derivation 6: P's initial relative performance expectations, based upon status assignment, will " . . . persist even in the presence of contradictory information. . . ."

Derivation 6a: In situations of disagreement between P and O concerning procedural expectations, P's acquisition of O's procedural expectations will be consistent with d_3 , d_4 , and d_5 , regardless of confirmation/non-confirmation of O's initial relative performance expectations for P' and O.

In summary, procedural expectations (rules of the game) vary with respect to the degree of explicitness with which they are communicated. In situations where they are explicitly stated to a task-performing group there will be less disagreement among the group members. Group members will be more likely to comply with the task rules when they

are explicitly stated than when they are not. On the other hand, when procedural expectations concerning the task are not stated explicitly but are communicated implicitly there is greater ambiguity and thus greater opportunity for disagreement among the group members about the procedures to be followed in performing the task. When disagreement arises, the mechanism for resolution will be the distribution of prestige in the group. Where a member is seen as possessing relatively greater prestige, that person will also be seen as being more capable and knowledgeable regarding the procedural expectations for the task and thus his procedural expectations will be accepted and applied (acquired) by the other group member(s).

As suggested above, this theory incorporates certain features of Expectation States Theory, which, in effect, are replicated in this study. The new feature, which is the primary focus of the study, relates to the clarity (explicitness) or ambiguity (implicitness) of communication concerning procedural expectations and the implications of such communication for small group research. This is indicated in the following list of derivations to be tested.

The following derivations or predictions regarding P were submitted to empirical tests:

- d₁ When P is in a H-L status condition, in Situation S, the probability is greater that P will assign H-L initial relative performance expectations to P' and O, at Task T, than when P is in a L-H status condition, in which case the probability is greater that P will assign L-H initial relative performance expectations to P' and O.
- d₂ The probability of disagreement between P's and O's procedural expectations will be greater when the procedural expectations are ambiguous (implicit) than when they are clear (explicitly stated).
- d₃ In situations of disagreement between P and O concerning procedural expectations: The probability that P will acquire O's procedural expectations is greater in the L-H than in the H-L condition of performance expectations.
- d₄ In situations where procedural expectations are ambiguous and there is disagreement between P and O concerning procedural expectations, the probability that P will acquire O's procedural expectations is greater in the L-H than in the H-L condition of performance expectations.
- d₅ In situations where procedural expectations are clear and there is disagreement between P and O concerning procedural expectations, the probability that P will acquire O's procedural expectations is the same in the L-H as in the H-L condition of performance expectations.

d_{6a} In situations of disagreement between P and O concerning procedural expectations: P's acquisition of O's procedural expectations will be consistent with d₃, d₄, and d₅, regardless of confirmation/non-confirmation of P's initial relative performance expectations for P' and O.

CHAPTER IV

Empirical Test of The Theoretical Derivations

This chapter first describes the operationalization of the theoretical concepts and derivations. It will then provide a detailed description of the physical setting and the Experimental Sequence. Finally, it discusses the post-task trial phase of the experiment.

Operationalization of Variables

The Diffuse Status Characteristic (independent variable) was operationalized by introducing the subject (P) to the confederate (O).¹³ The subject was told the state of the diffuse status characteristic of the confederate. In the L-H condition, the subject(s) was told that the confederate was Doctor Gordon, a professor at the University of Hawaii. In the H-L condition the confederate was introduced as a high school student. The subjects were undergraduate students at the Manoa campus of the University of Hawaii.

¹³Subjects were introduced to the confederate over the TV screen.

Initial Relative Performance Expectations (independent variable) were operationalized by asking the subject in a post-experimental task interview, whom he initially expected to do better at the task, himself or his opponent (see Appendix A for a description of the post-experimental task interview).

Clarity/Ambiguity of Procedural Expectations (independent variable) was operationalized in two states. The Clear (explicit) state was operationalized when the experimenter told the subject prior to the beginning of the task trials that only those words containing at least three letters would be counted in his score. The confederate's scoring of the subject's word sheet (Appendix A) following each task trial, as well as the number of letters used by the confederate in the words he constructed, adhered to this rule.¹⁴ The Ambiguous (implicit) state of the procedural expectations was operationalized when the subject saw his score sheet on the TV screen following each task trial. The score sheet indicated the number of words counted in those the subject made. Since in this state there was no word-size information given by the experimenter, the subject first had to notice that not all of his words;

¹⁴All trials of the task contained combinations of letters from which at least two words of less than three letters could be constructed.

i.e., those with fewer than three letters, had been counted in his score and second he had to decide whether to go along with the confederate's scoring.

"Acquisition" occurred when after noticing that the confederate had discounted the one or two-letter words from the subject's score, the subject began to construct only words with three or more letters. In this case, if the subject initially used one or two letter words but later switched to three or more letter words consistently it was assumed that he noticed the difference in the rules and also accepted the confederate's rules. This constituted the operationalization of acquisition of procedural expectations (dependent variable). In the ambiguous condition, if the subject never made any one or two letter words during the task trials then acquisition of the three-letter word size rule could not occur, since he could not "acquire" a rule he already adhered to (even though it was implicit).¹⁵ In this instance there was always agreement, i.e., no difference, between the subject's and the confederate's word-size rule (procedural expectations). If the subject continued

¹⁵Since it is more difficult to construct larger words, subjects were motivated to construct the smallest words they could. Thus, most subjects were motivated to use one or two letter words whenever allowed. In the ambiguous condition all but four subjects (whose data were excluded) eventually used one or two-letter words.

to use one- or two-letter words throughout the task trials in spite of the confederate's consistent exclusion of them from the subject's score then acquisition of procedural expectations, i.e., the word-size rule, had not occurred. These subjects' data were excluded from the analysis.¹⁶ The measure of acquisition was the proportion of task trials, following the first trial in which the subject constructed a one- or two-letter word, that the word-size rule was adhered to.

Performance at Task T was operationalized by scoring all eligible words. Each eligible word was given one point, regardless of size.¹⁷ The score for each task trial is considered a measure of the subject's performance at Task T. Words of one or two letters were not discounted for purposes of measuring performance since the concept of performance is independent of the concept of procedural expectations (word-size rule). Also, some subjects were exposed to explicit statements of the word-size rule and others were not; thus performance per se included all eligible words produced by the subject in each task trial regardless of whether they followed any word-size rule.

¹⁶Ibid.

¹⁷Ibid.

Confirmation of Initial Relative Performance

Expectations is operationally defined as the condition where the subject's knowledge of relative task performance coincides with his initial relative performance expectations for himself and his opponent. For instance if the subject predicts that he will win the game and in fact does win the game, his initial relative performance expectations are confirmed. On the other hand, if the subject predicts that he will win the game and yet he loses, then his initial relative performance expectations are not confirmed.

Disagreement (difference) or Agreement (similarity) in Procedural Expectations was operationalized by a situation where the subject used a different word-size rule in constructing his words than the confederate used in scoring the subject.¹⁸ For example, if the subject constructed words with one or more letters and the confederate scored only those words with three or more letters, then this was defined as a condition of difference between the subject's and the confederate's procedural expectations. The agreement condition was defined as a situation where the subject constructed words with three or more letters only and the confederate only included words with three or more letters

¹⁸The confederate consistently included only words with three or more letters in the subject's score and also produced only words with three or more letters.

in the subject's score.

Experimental Situation

In order to control variation in the experiment it was decided that the subject and confederate should be in separate rooms with no means of communication other than that necessary for the experiment. In the same room or in a face-to-face situation subjects could receive many unnecessary cues from the confederate about task performance or status. The theory stipulates that the subject and confederate be differentiated on only one status characteristic; therefore, it was necessary to prevent the subjects from receiving additional cues. The complete separation of the subject and confederate was assured by the use of TV equipment.

While the set-up of the TV equipment was complex, it did have several important advantages.¹⁹ It assured the complete separation of the subject from the confederate except when necessary to communicate the words and scores between them, and it permitted the standardization of the experimental instructions and experimental sequence. The instructions and the presentation of the letters and the

¹⁹For a discussion of the benefits of the use of videotape in experimental situations, see Brody (1975:45, 46) and Kruse (1975).

timing of the buzzer which signalled the beginning and ending of each task trial were recorded on videotape in order to assure that each subject received the same stimuli. The prerecording of the experimental sequence on videotape simplified the experimenter tasks and reduced the possibility of experimenter error. It permitted the prerecording of part of the confederate role.

One problem encountered in preliminary testing of the video equipment was subject suspicion concerning the reality of the opponent. It was determined that this was due to the absence of a TV camera in the activity room focused upon the subject. The subjects felt that if their opponent was indeed real, it would be necessary to introduce themselves to their opponent; and they felt it could be done by showing themselves on a TV camera as they assumed was done when they saw their opponent's image on their screen. The only camera the subjects observed in their activity room was the one focused on the box. Had a second camera been installed to focus upon the subject some would have felt self-conscious (Rosenthal, 1966). In order to solve the problem a slight change was made in the introduction procedure. Immediately after introducing the subject to his opponent by showing a picture of his opponent on the subject's screen, the experimenter turned off the video tape recorder

and came to the activity room where the subject was sitting. He informed the subject that he wanted to also introduce him to his opponent so his opponent would know whom he was going to be working with. The experimenter then asked the subject to stand in front of the TV camera and then he refocused the camera upon the subject for a few seconds. Afterward, the experimenter thanked the subject and asked him to sit down again. Then the experimenter refocused the camera upon the box, and he told the subject that the experimental instructions would continue. The experimenter left the activity room and returned to the observation room and restarted the videotape. This slight change in procedure worked very well and eliminated that source of subject suspicion.

There were two occasions when the experimenter entered the activity room during the experiment. First, he entered to introduce the subject to his opponent. Second, he entered after the completion of the experimental instructions and two practice trials and prior to running of the experiment. Care was taken by the experimenter to minimize his interaction with the subject during these encounters and then to use the same explanations and instructions with each subject in order to assure standardization.

Other provisions for standardization were made. The same experimenter conducted all of the experimental runs. He always dressed and appeared similarly each time. He conducted the recruitment and telephoned each subject to screen, to schedule and to remind them of their appointments. The same message was used on the telephone answering machine in response to inquiries from the ads placed on bulletin boards and in the student newspaper (see Appendix B). Also, the experimenter and confederate were the same sex and race as the subjects in order to minimize the effects of these status differences upon the results (Rosenthal, 1966). A standard procedure was followed to obtain all information from the subjects before, during, and after the experiment. A procedure for eliminating subjects who had previously participated in similar experiments, as well as eliminating them based on the violation of any other scope conditions of the theory, was followed by the experimenter.

Sample

The subjects were recruited from the male undergraduate population of the University of Hawaii for a study on word cognitive ability. Requests were made during classes and ads were placed in the student newspaper and upon bulletin boards around campus (Appendix B). In all

cases those who were interested in participating were asked for their name, age, sex, race, class standing, and telephone number. Only sophomores, juniors, and seniors between the ages of 20 and 29 were selected.²⁰ The subjects were also limited to the sex (male) and race (Caucasian) of the experimenter (Brody, 1975:51). The restrictions on class standing, age, race, and sex of those selected increased the homogeneity of the verbal skills of the subjects.

Physical Setting

The experiment required two adjacent rooms. The activity room in which the subject worked was equipped with a table, chair, TV set, TV camera, and word sheet and score sheet box in addition to a pad of work sheets, score sheets, and a felt-tip pen.

The TV set in the activity room was used by the subject to: (1) receive experimental instructions; (2) receive the letters for making words in each task trial; (3) display the opponent's word sheet for the subject to score; and (4) display the score sheet with the subject's words and score for each task trial. The TV camera in the

²⁰Undergraduate students in their freshman year and/or under the age of 20 were excluded in order to assure a status difference with the high school students (shown on the TV screen as the confederate in Conditions B and D).

activity room was focused upon the word and score sheet box, in which the subject's completed word and score sheets were placed, thus transmitting the word and score sheets to the observation room for the confederate to see.

In the observation room there were three TV sets or monitors. One was used by the experimenter to monitor the video tape recorder as it transmitted the instructions and task trial letters to the TV set in the activity room. The other two TV monitors in the observation room were used to monitor the two TV cameras, one in the activity room and one in the observation room. This allowed the experimenter to keep track of everything that was being transmitted to the subject and also to receive the subject's word sheet and score sheet information. A switch in the observation room allowed the experimenter to control the information the subject was receiving from either the video tape recorder (VTR) or from camera number 1 in the observation room. When the switch was turned to the VTR the subject received the experimental instructions or the task trial letters. When the switch was turned on the camera, the subject received the confederate's word or score sheet information. (Illustration 1.)

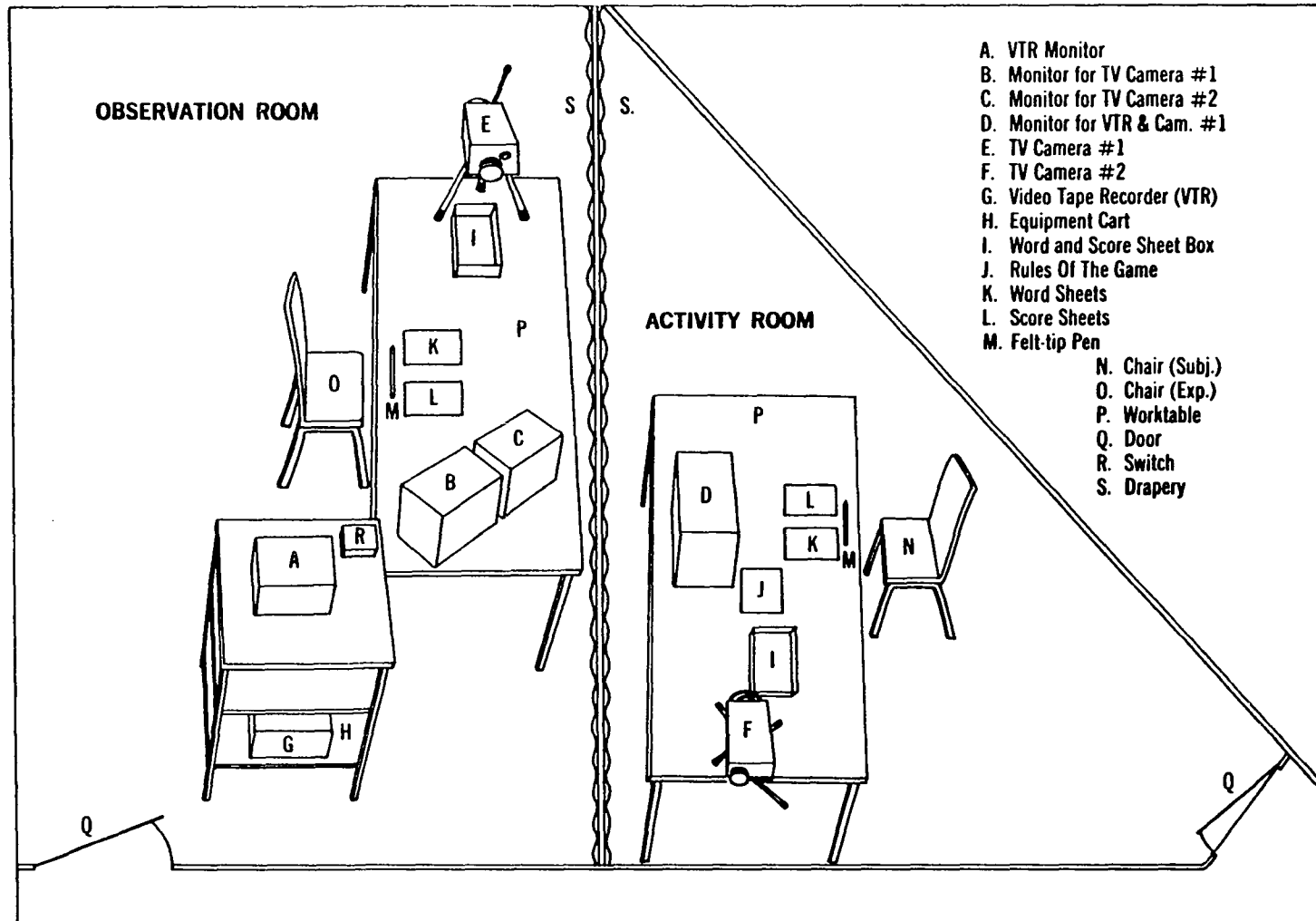


ILLUSTRATION 1: PHYSICAL LAYOUT OF THE EXPERIMENT

Experimental Sequence

The experimenter greeted the subjects as they arrived at the lab. He took the subject to his room and instructed him to sit down and watch his TV set for instructions. The experimenter then left the room. Next, the experimenter's voice was heard by the subject. He thanked the subject for participating in the study and briefly described the purpose of the study as a way of studying the effectiveness of group interaction while using new kinds of communication equipment rather than face to face. Next, the subject was introduced to his competitor, by seeing the confederate's picture on his TV set.²¹ Then, the experimenter went to the subject's room and asked him to stand in front of the TV camera so he could be seen by his competitor. The experimenter focused the camera upon the subject for a few seconds, and then thanked the subject and instructed him to sit down. The experimenter then refocused the camera upon the box, told the subject that the experimental instructions would be given next, and then left the room. After returning to the observation room the experimenter restarted the videotape

²¹The subject was told that his opponent was Doctor Gordon in Situations A and C, and was told that his opponent was a high school student in Situations B and D.

which gave the subject the experimental instructions (including instructions on how to use the word and score sheets, how to play the game, and the rules of the game). The rules of the game differed for the different conditions; that is, for Conditions A and B the subjects were told not to use words with less than three letters, whereas for Conditions C and D that rule was omitted from the instructions. After receiving the experimental instructions, the subjects were instructed to complete two practice trials. Following the practice trials, the experimenter entered the subject's room and looked over the completed word and score sheets in order to determine that the subject understood and followed the task instructions properly.

The task trials began next, with letters appearing on the subject's TV screen (see description of the word cognitive ability task below).

The Word Cognitive Ability Task

The subject was told that some letters would be flashed on the TV screen and from those letters he was to make as many words as possible.²² One-half of the subjects;

²²During the experiment the experimenter used the video tape recording to present the letters to the subject. The letters were flashed ten at a time on the subject's TV screen. The letters were selected at random, with replacement. Letter combinations with fewer than two vowels were arbitrarily omitted, as too few words could be constructed

i.e., Situations A and B, were told that they must use words with three or more letters and that words with fewer than three letters would not count in their score (word-size rule). The other one-half (Situations C and D) of the subjects were not provided with any instructions on the size of words they could use in the task. All subjects were instructed to copy the letters which appeared on the TV screen onto their word sheet and then to construct as many words as possible. The subjects were told that a buzzer would sound when the time was up and that they should place their word sheets onto the word and score sheet box beneath camera number 2.²³ The TV camera focused on the box and transmitted their words to their opponent; their opponent's words were likewise transmitted to the subject.

All subjects were instructed to use the score sheets to score the opponent's word sheet (see Appendix A for illustration of the word sheet and score sheet) which would be transmitted on their TV screen. When finished scoring, they were instructed to place their score sheet in the word

from them. Other than this, no restrictions were placed on the letter combinations selected. Some letter combinations were found to have more possible words than others; but since all subjects were exposed to the same combinations, the effect upon the differences in subject skills was random.

²³A special box was used to facilitate proper camera transmission of the word and score sheets.

and score sheet box, and the score they gave would be transmitted to their opponent. The subjects were told that the opponent would do likewise. When the subjects saw their score on the screen they were instructed to remove the score sheet from the box and to record their score in the appropriate place on their score sheet and then return their score sheet to the box so their opponent could see it. Sixty seconds were allowed for scoring. Subjects were instructed to score their opponent's word sheet, appearing on the TV screen, and to record their own score beneath the opponent's in order to maximize the probability that they would notice how their score was computed. For Situations A and B (explicit statement of word-size rule), the subject's score was computed following the rules he was given; i.e., scoring only those words with three or more letters. For Situations C and D the same rule was applied by the confederate even though those subjects were not given the word-size rule. Subjects assigned to Conditions C and D were exposed to the word-size rule implicitly through the scores which appeared on the score sheets; i.e., only those words which contained three or more letters were counted in the score. Thus, the same word-size rule was applied for scoring all subjects regardless of the experimental conditions to which they were randomly assigned.

The use of word sheets permitted the confederate's words to be programmed in advance, and they all followed the rule for word-size. The confederate used preprogrammed word sheets to place under the camera and also scored the subject's words on the score sheets and placed them under the camera at the appropriate time in each trial of the task sequence.

The score sheets had printed summaries of the game rules as applied to each situation; i.e., A, B, C, or D, and reaffirmed the rules that were given by the experimenter at the beginning of the task trials. Of course, subjects in Conditions C and D did not receive instructions concerning word size.

Signals to begin and end each trial of the task were recorded on the videotape and thus were standardized for all situations, and for all subjects. There were twenty trials of the task, all of which contained letter combinations which permitted words of one or two letters to be constructed.

Post-Task Trial Phase

Following the twentieth trial of the task, the experimenter went to the subject's room and escorted him to the debriefing room where a post-experimental interview

was conducted. This interview lasted about ten minutes (see Appendix A for an illustration of the Post-Experimental Interview Questionnaire).

The purpose of the post-experimental interview was to: (1) determine if the subject could remember the rules of the game, including the word-size rule; (2) operationalize the subject's initial relative performance expectations for himself and his opponent; (3) record the subject's perception of who won the game; (4) determine if the subject suspected the stated purpose of the experiment, the reality of the opponent, or in any other way was suspicious of the experiment, and to what extent his suspicion affected his task performance; (5) discover any other violations of scope conditions in order to assure that the subject's data was usable.

The experimenter recorded all of the subject's responses and comments on the questionnaire. The experimenter debriefed the subject by explaining the purpose of the study and answering the subject's questions. The subjects were asked to cooperate in not discussing the details of the experiment. Before their departure, the subjects were paid the agreed-upon amount.

Subjects who fell outside the scope of the experiment by virtue of not following the experimental procedures

as outlined, having previously known about or participated in a deception experiment, suspecting the purpose of the study as stated to them or the reality of the confederate, or not meeting any of the other scope conditions, did not have their data included in the analysis.

CHAPTER V

Data Analysis

This chapter describes the criteria for inclusion of data in the analysis and those cases which were excluded. It presents the results of the analysis: the relationships among status characteristics, performance expectations, and acquisition of procedural expectations and the effect of the clarity/ambiguity of procedural expectations upon these relationships. There is a discussion and interpretation of these results. Finally, there is a discussion of the serendipitous findings and their implications for the extension of the research.

DATA INCLUDED IN THE ANALYSIS

Criteria

In conducting experimental research it is desirable yet often impossible to screen subjects in advance so that all meet the scope conditions of the theory. While criteria are applied in selecting subjects to participate in the experiment, one or more scope conditions may be violated during the experiment. This may not be discovered until the

subject used the rule correctly; i.e., did not deviate from the rule.

Prediction 1: Status Characteristics and Performance Expectations, a Replication

Previous expectation states research has shown that status characteristics, i.e., diffuse status characteristics, are related in degree to performance expectations such that in Situation S, where P is relatively lower than O on the diffuse status characteristic, (L-H) will expect his own performance at Task T to be lower than O's. Also, when P is relatively higher than O on the diffuse status characteristic (H-L), he will expect to do better at the task than O (Berger et al., 1966, 1974; Brody, 1975, 1977).

Table 1 illustrates the relationship between the diffuse status characteristics and performance expectations for the subjects in this study, showing that sixty-two subjects out of eighty (77.5%) held performance expectations of their opponents according to the predictions of the theory (Derivation 1) and eighteen (22.5%) did not. The theoretical prediction that when P perceives himself (P') as possessing relatively higher status on a diffuse status characteristic than the other (O) (H-L) he will be more likely to expect to do better at a task than O, is supported

TABLE 1
INITIAL RELATIVE PERFORMANCE EXPECTATIONS FOR
P' AND O BY RELATIVE STATUS CHARACTERISTICS

P's Initial Relative Performance Expecta- tions for P' and O	P's and O's Relative Status			
	H-L Condition		L-H Condition	
H-L	#S's prop.	33 .825	#S's prop.	2 .050
Same	#S's prop.	2 .050	#S's prop.	4 .100
DK	#S's prop.	5 .125	#S's prop.	5 .125
L-H	#S's prop.	0 .000	#S's prop.	29 .725
	#S's	40	#S's	40

NOTE: The total of 80 subjects in this table include 3 subjects in condition D and 1 subject in condition C who didn't disagree with O on Procedural Expectations.

with 82.5% accuracy. The prediction that when P perceives P' as possessing relatively lower status on a diffuse status characteristic than O (L-H) he will be more likely to expect to do worse at the task than O, is also supported, with 72.5% accuracy.²⁴ Thus, this study supports previous research findings on the relationship of status characteristics and performance expectations.

²⁴Performance expectations of "Same" and "Don't Know" while consisting of only a total of 16 out of the 80 subjects

Prediction 2: The Effect of Clarity/Ambiguity of Procedural Expectations Upon Agreement Between P's and O's Procedural Expectations

The second theoretical derivation is: "P and O's procedural expectations for Task T, in Situation S, will agree more when the task rules are clear (explicit) than when they are ambiguous (implicit)."

In order to test this prediction it was necessary to include all subjects, even though they might have never disagreed. There were three subjects in Condition D and one in Condition C who never disagreed concerning procedural expectations. These subjects were later replaced by other subjects in order to test subsequent predictions concerning the acquisition of procedural expectations which necessitate an initial disagreement in order to operationalize the "acquisition" variable.

Table 2 shows that when procedural expectations are clear there is disagreement between P's and O's procedural expectations on only .25% of the task trials, compared with 15.5% where the procedural expectations are ambiguous.

may have been a result of the ex-post facto operationalization of the performance expectations; i.e., subjects were asked during the post-task interview to recall what their initial relative performance expectations for P' and O were.

TABLE 2

THE EFFECT OF CLARITY/AMBIGUITY OF PROCEDURAL EXPECTATIONS
UPON DISAGREEMENT BETWEEN P AND O'S PROCEDURAL EXPECTATIONS

Procedural Expectation	Proportion of Task Trials that P's and O's Procedural Expectations Disagreed		
Clear (A, B)	proportion	.0025	
	# trials	800	
	# subjects	40	
Ambiguous (C, D)	proportion	.1550*	
	# trials	800	
	# subjects	40	

NOTE: Disagreement is defined as the proportion of trials in which P used words with less than 3 letters. *This figure includes all P's, even those who didn't disagree at all; i.e., didn't use any 1- or 2-letter words in any task trial (3 subjects from Condition D and 1 from Condition C).

This finding supports the hypothesized relationship between the clarity/ambiguity of procedural expectations and the agreement between P and O concerning those expectations.²⁵

²⁵In order to operationalize acquisition of procedural expectations the three subjects (P) in Conditions C and D (Table 1) who did not ever disagree with their opponent (O) had to be replaced with three other subjects who did. In order to "acquire" the procedural expectations (rules of the game) the subjects had to first disagree; i.e., use words with one or two letters in at least one trial. When these words were scored off by the opponent (O), this gave him (P) the rule implicitly, after which he could "acquire" the rule by not making up any more one- or two-letter words.

Prediction 3: Performance Expectations and Acquisition of Procedural Expectations

One of the major tests of the theory involves the prediction that acquisition of procedural expectations will vary according to P's initial relative performance expectations for P' and O.

d₃ In situations of disagreement between P and O concerning procedural expectations: The probability that P will acquire O's procedural expectations is greater in the L-H than in the H-L condition of performance expectations.

Subjects in the H-L condition are expected to have lower acquisition scores than those in the L-H condition. Table 3 presents the acquisition scores²⁶ for each condition of performance expectations.

Table 3 indicates that the data are in the predicted direction. The subjects in the H-L condition complied with the word-size rule (procedural expectations) on 86.07% of the trials.²⁷

²⁶ Acquisition scores based on the total number of words (rather than on trials, as in Table 3) produced a similar distribution to Table 3 but with smaller differences in scores.

²⁷ Subjects in Conditions A and B were given the rule explicitly before the beginning of the task trials. Subjects in Conditions C and D were made aware of the rule only after they violated it and their less-than-three-letter words were

TABLE 3

P'S ACQUISITION OF O'S PROCEDURAL EXPECTATIONS BY P'S AND O'S
RELATIVE STATUS CHARACTERISTICS AND P'S INITIAL RELATIVE
PERFORMANCE EXPECTATIONS FOR P' AND O

P's Initial Relative Performance Expecta- tions for P' and O			P's and O's Relative Status	
			H-L Condition	L-H Condition
H-L	#S's	33		2
	# trials	560		31
	prop. Acq.	.8607		.9355
Same	#S's	2		4
	# trials	24		54
	prop. acq.	.7500		.8889
DK	#S's	5		5
	#trials	92		92
	prop. acq.	.9674		.9891
L-H	#S's	0		29
	#trials	0		499
	prop. acq.	-		.9699
Total	#S's	40		40
	#Trials	676		676
	prop. acq.	.8713		.9645

NOTE: Four subjects (3 from Condition D and 1 from Condition C) were replaced since they had no disagreement with O on procedural expectations and could therefore not "acquire" that which they agreed with. The number of trials included all trials after the subject first received (different for each subject in the implicit conditions C, D) the word-size rule, i.e., procedural expectations. This was the base for computing the acquisition score.

discounted.

Subjects in the L-H condition complied with the procedural expectations on 96.99% of the trials. The data appear to support the prediction that subjects in the L-H condition acquire the procedural expectations more readily than subjects in the H-L conditions.

Predictions 4 and 5: The Effect of Clarity/Ambiguity of Procedural Expectations Upon the Relationship Between Performance Expectations and Acquisition of Procedural Expectations

Another major test of the theory involves the prediction that a different relationship between performance expectations and acquisition of procedural expectations will be found when procedural expectations are clear (given to P explicitly) than when they are ambiguous (given to P implicitly). The theory predicts that:

- d_4 In situations where procedural expectations are ambiguous and there is disagreement between P and O concerning procedural expectations, the probability that P will acquire O's procedural expectations is greater in the L-H than in the H-L condition of performance expectations.

This occurred on different trials for different subjects. Therefore in Conditions C and D acquisition included only the trials after the subject first became aware of the word-size

rule.

Subjects in the H-L condition are expected to have lower acquisition scores than those in the L-H condition. Table 4 presents the acquisition scores for each condition of performance expectations where the procedural expectations (rules of the game) are ambiguous; i.e., communicated to the subjects implicitly.

Table 4 indicates, as in Table 3, that the data are in the direction predicted. The subjects in the H-L ambiguous condition complied with the word-size rule on 67.5% of the task trials compared with 92.74% for subjects in the L-H condition. The difference between the acquisition scores in the H-L versus the L-H condition is greater when the procedural expectations are ambiguous (Table 4) than in Table 3.²⁸ This indicates that ambiguity of procedural rules enhances the effect of initial relative performance expectations upon the acquisition of the rules.

The effect of performance expectations upon acquisition of procedural expectations is predicted to be minimal

²⁸Table 3 shows the difference between H-L acquisition score (.8607) and the L-H acquisition score (.9699) to be .1092. Table 4 shows when only the ambiguous condition is considered the H-L acquisition score is .6750 and the L-H score is .9274 with a difference of .2524. By adding the concept of ambiguity, the difference between the H-L and L-H acquisition scores is increased by 131.1%.

TABLE 4

P'S ACQUISITION OF O'S PROCEDURAL EXPECTATIONS BY P'S AND O'S RELATIVE STATUS, BY P'S INITIAL RELATIVE PERFORMANCE EXPECTATIONS FOR P' AND O, BY AMBIGUITY/CLARITY OF PROCEDURAL EXPECTATIONS

STATUS (P-O)				Initial Relative H-L Performance Same Expectations (P'-O)				Ambiguity/Clarity of Procedural Expectations				
H-L	#	Prop.	DK	#	Prop.	Ambig.	#	Prop.	L-H	#S's	Trials	Acquis.
L-H	#S's	Trials	Acquis.	L-H	#S's	Trials	Acquis.	Clear	S's	Trials	Acquis.	
H-L	40	676	.8713	H-L	33	560	.8607	amb.	17	240	.6750	
								clear	16	320	1.000	
				Same	2	24	.7500	amb.	2	24	.7500	
								clear	0	0	-	
				DK	5	92	.9674	amb.	1	12	.7500	
								clear	4	80	1.000	
				L-H	0	0	-	amb.	0	0	-	
								clear	0	0	-	
L-H	40	676	.9645	L-H	29	499	.9699	amb.	13	179	.9274	
								clear	16	320	.9938	
				DK	5	92	.9891	amb.	1	12	.9167	
								clear	4	80	1.000	
				Same	4	54	.8889	amb.	4	54	.8889	
								clear	0	0	-	
				H-L	2	31	.9355	amb.	2	31	.9355	
								clear	0	0	-	
Tot	80	1352	.9179	Tot	80	1352	.9179	Tot	80	1352	.9179	

NOTE: 4 subjects (3 from Cond. D and 1 from Cond. C) were replaced from Table 1 since they had no disagreement with O on procedural expectations and therefore could not "acquire" that which they agreed with. Number of trials include the tot. # of trials after the subject received the word-size rule (procedural expectation). This was the base upon which the "acquisition" score was computed.

when the procedural expectations are clear.

- d₅ In situations where procedural expectations are clear and there is disagreement between P and O concerning procedural expectations the probability that P will acquire O's procedural expectations is the same in the L-H as in the H-L condition of performance expectations.

Table 4 indicates that the data are as predicted. The subjects in the L-H condition are about as likely (.9938) to acquire O's procedural expectations as are the subjects in the H-L condition (1.00).

The comparison of the effect of the clarity/ambiguity of procedural expectations upon the relationship between P's initial relative performance expectations for P' and O and P's acquisition of procedural expectations is presented in Table 4. When the procedural expectations are clearly stated to the subject (P) prior to the task, P's initial performance expectations for P' and O has no appreciable effect upon P's acquisition of procedural expectations as compared with the condition when the procedural expectations are ambiguous. Under the latter condition, P's initial performance expectations for P' and O exert a substantial effect upon P's acquisition of procedural expectations. Only under a condition of ambiguity does P's

initial performance expectations have an effect upon acquisition of procedural expectations.

These findings support the theoretical prediction concerning the relationship among status characteristics, performance expectations, clarity/ambiguity of procedural expectations and acquisition of procedural expectations.

Prediction 6a: The Effect of Confirmation/Non-Confirmation of Performance Expectations Upon the Acquisition of Procedural Expectations

It is expected that once P forms his initial relative performance expectations for P' and O at the task, confirmation (or non-confirmation) of his expectations will not alter his acquisition of procedural expectations.

d_{6a} In situations of disagreement between P and O concerning procedural expectations: P's acquisition of O's procedural expectations will be consistent with d_3 , d_4 , and d_5 , regardless of confirmation/non-confirmation of P's initial relative performance expectations for P' and O.

Table 5 shows the effect of confirmation/non-confirmation of initial relative performance expectations. It appears that when the subject plays against a lower status

opponent (H-L status condition) and he has H-L initial relative performance expectations, whether his expectations are confirmed or not by his (P) and his opponent's (O) task performance appears to make considerable difference in his acquisition of O's procedural expectations. If in fact the subject wins the game, as expected, his acquisition score changes from .8607 to .8235, a modest reduction. However, if his initial relative performance expectations are not confirmed, i.e., his opponent wins the game, his acquisition of his opponent's procedural expectations, jumps from .8607 to .9467, a considerable increase. This finding implies that the initial relative performance expectations are unstable when they are not confirmed (contrary to Derivation 6).

In the L-H condition of performance expectations the effect of confirmation/non-confirmation of P's initial relative performance expectations is minimal (Table 5). Where they are confirmed, i.e., P loses the game, P's acquisition increases slightly from .9699 to .9868. Where they are not confirmed, i.e., P wins the game, P's acquisition decreases hardly at all. In the L-H condition of initial relative performance expectations the knowledge of relative task performance makes no difference in P's acquisition scores, indicating stability of the initial

relative performance expectations (consistent with derivation 6).

In comparing the effect of the H-L with the L-H initial relative performance expectations within the confirmation/non-confirmation of those expectations the data are in the predicted direction, i.e., H-L subjects who win acquire less (.8235) than L-H subjects who lose (.9868). H-L subjects who lose acquire less (.9467) than L-H subjects who lose (.9626). The differences are slight where the initial relative performance expectations are not confirmed, compared to large differences where the initial expectations are confirmed.

When comparing the effect of ambiguity/clarity of procedural expectations upon P's acquisition scores within the confirmation/non-confirmation categories the original distribution of acquisition scores (Table 4) is maintained with only slight deviation.

Essentially, it can be concluded that confirmation/non-confirmation of initial relative performance expectations is an important factor in P's acquisition of O's procedural expectations, especially in the H-L condition of performance expectations. This does weaken support for derivations 3 and 4. Derivation 5, however, is supported regardless of the effect of confirmation/non-confirmation of performance expectations.

TABLE 5 - DATA MATRIX

ACQUISITION OF PROCEDURAL EXPECTATIONS BY: STATUS CHARACTERISTICS, INITIAL PERFORMANCE EXPECTATIONS, TASK PERFORMANCE, AND AMBIGUITY/CLARITY OF PROCEDURAL EXPECTATIONS

Initial Relative Task Performance Ambiguity/Clarity of															
H-L Performance Ex- Procedural Expecta-															
Status (P-O)Same pectations															
H-L	#	#	Prop.DK	#	#	Prop.Won	#	#	Prop.Ambig.	#	#	Prop.			
L-H	S's	Trials	Acq.	L-H	S's	Trials	Acq.	Lost	S's	Trials	Acq.	Clear	S's	Trials	Acq.
H-L	40	676	.8713	H-L	33	560	.8607	W	24	391	.8234	A	14	191	.6387
								L	9	169	.9467	C	10	200	1.000
												A	3	49	.8163
												C	6	120	1.000
				same	2	24	.7500	W	0	0	-	A	0	0	-
												C	0	0	-
								L	2	24	.7500	A	2	24	.7500
												C	0	0	-
				DK	5	92	.9674	W	3	52	.9423	A	1	12	.7500
												C	2	40	1.000
								L	2	40	1.000	A	0	0	-
												C	2	40	1.000
				L-H	0	0	-	W	0	0	-	A	0	0	-
												C	0	0	-
								L	0	0	-	A	0	0	-
												C	0	0	-
L-H	40	676	.9645	L-H	29	499	.9699	W	20	348	.9626	A	10	148	.9189
												C	10	200	.9950
								L	9	151	.9868	A	3	31	.9677
												C	6	120	.9917

TABLE 5, Continued

ACQUISITION OF PROCEDURAL EXPECTATIONS BY: STATUS CHARACTERISTICS, INITIAL PERFORMANCE EXPECTATIONS, TASK PERFORMANCE, AND AMBIGUITY/CLARITY OF PROCEDURAL EXPECTATIONS

			Initial Relative				Task Performance				Ambiguity/Clarity of			
			H-L Performance Ex-								Procedural Expecta-			
Status (P-O)			Same pectations (P'-O)P								tions			
H-L #	#	Prop.	DK #	#	Prop.	Won #	#	Prop.	Ambig.#	#	Prop.	Ambig.#	#	Prop.
L-H	S's	Trials	Acq.	L-H	S's	Trials	Acq.	Lost	S's	Trials	Acq.	Clear	S's	Trials
				DK	5	92	.9891	W	3	52	.9808	A	1	.12
												C	2	.40
								L	2	40	1.000	A	0	0
												C	2	.40
				same	4	54	.8889	W	4	54	.8889	A	4	.54
												C	0	0
								L	0	0	-	A	0	0
												C	0	0
				H-L	2	31	.9355	W	1	19	.9474	A	1	.19
												C	0	0
								L	1	12	.9167	A	1	.12
												C	0	0
Tot	80	1352	.9179	80	1352	.9179		80	1352	.9179		80	1352	.9179

DISCUSSION AND INTERPRETATION OF RESULTS

Performance Expectations and Acquisition of Procedural Expectations

The findings referred to in Table 5 concerning the effect of the subject's knowledge of his task performance relative to his opponent should be clarified.

When a subject's initial expectations are confirmed, his behavior (acquisition) follows predicted directions; but when his initial expectations are not confirmed, the predictions are only partially supported. Webster and Sobieszek (1974:129) state that, "In S, if P evaluates a series of performances of any actor then he will come to hold an expectation state for that actor which is consistent with those qualifications."²⁹ Even though the present study does not attempt to directly measure changes in the subject's relative performance expectations, the subject's evaluations of his and his opponent's successive performances at the task appear to affect the subject's acquisition scores in a manner which would indicate (indirectly) that his relative performance expectations change, particularly when the subject interacts with a lower status opponent.

The initial relative performance expectations are activated when the subject is introduced (over T.V.) to his

²⁹See also Webster and Driskell, 1978:233.

opponent. In the H-L condition the subject (college undergraduate) is introduced to a high-school student (his opponent). In the L-H condition the subject is introduced to a college professor (his opponent). It appears in Table 5 that confirmation or non-confirmation of the subject's initial relative performance expectations makes little or no difference when he plays against a higher status opponent (professor). His initial relative performance expectations thus are stable, as predicted, in the L-H status condition. In the H-L status condition the subject's knowledge of the relative performance appears to alter his initial relative performance expectations which are based on the status difference between he and his opponent. This status difference is used in the experiment to actuate the subject's initial relative performance expectations. As long as those expectations are confirmed, i.e., the subject wins the game, his acquisition scores indicate that his initial relative performance expectations are maintained. Conversely, when the subject finds that his lower status opponent is winning the game his acquisition scores indicate that he yields to his opponent, i.e., acquires his opponent's rules, to the same extent as the other subjects whose status condition and initial relative performance expectations are L-H. This indicates a weakening of the effect of the status difference

between the subject and his opponent in the H-L status condition.

Thus, while there seems to be no weakening of the effect of the status difference in the L-H status condition there seems to be a weakening in the effect of the H-L status condition. One explanation of this might lie in the operationalization of the status differences. Perhaps there is a much greater status difference between an undergraduate student and a professor than between an undergraduate student and a high school student.³⁰ This possibility points to a need for more refinement of the operationalization of status differences within different settings and cultures as well as more research on the effects of status differences.

Clarity/Ambiguity of Procedural Expectations and Acquisition of Procedural Expectations

The results shown in Tables 4 and 5 support the theory's predictions. Those tables indicate that the

³⁰The differences between undergraduate students and professors at the University of Hawaii may vary from differences between students and professors at other universities. This may be a function of the exclusiveness of the university, where, for example, in an elitist university the status of those selected to enroll may be higher than in a non-elitist university where almost anyone can enroll. The differences between students and professors in terms of status would vary between these two kinds of universities.

relationship between performance expectations and acquisition of procedural expectations is greater under conditions where procedural expectations are ambiguous than when they are clear.

These findings indicate that clearly stated rules are most often complied with in task-oriented situations. If the rules are never called into question, because of a disagreement, then reference to initial performance expectations is unnecessary because the subject will most often follow the rules of the game he was originally given and no disagreement between his and his opponent's opinions of the game rules occurs. This finding is related to the distribution of prestige in groups. If the operational rules or procedural rules are all clearly stated to members of the group the differentials in status and in initial performance expectations will have little importance to group interaction. However, whenever a situation arises which is not covered by the rules then the distribution of prestige in the group will influence whose rules will be adopted.

Serendipitous Findings and Implications for Further Research

The theory as it presently exists includes the notion of degree of acquisition but not the notion of speed

of (or rate of) acquisition of procedural expectations. The empirical test, while not strictly designed to provide information on rate of acquisition, can be tabulated to provide some estimates³¹ of the average number of task trials required for the subject to acquire his opponent's procedural expectations (rules of the game).

Table 6 shows that there are differences in the number of trials required for the subjects in different status conditions by initial relative performance expectations, confirmation/non-confirmation of performance expectations and ambiguity/clarity of procedural expectations to acquire their opponent's procedural expectations. These differences are consistent with the degree of acquisition. Generally, the degree of acquisition is inversely proportional to the rate of acquisition. Where the degree of acquisition is lower the number of trials required is greater. It appears that subjects take longer to acquire lower status opponent's rules and particularly those opponents who also do more poorly than they at the task. Acquisition appears to take longer (more trials) under conditions of ambiguity than of clarity of procedural expectations.

³¹See note at the bottom of Table 6.

TABLE 6
AVERAGE NUMBER OF TASK TRIALS REQUIRED FOR P TO ACQUIRE O'S PROCEDURAL EXPECTATIONS

Status	# S's	Avg. # of Trials to Acq.	Perf. Expect.		Avg. # of Trials to Acq.	Task Perf.		Avg. # of Trials to Acq.	Amb/Clar of P.E.		
			H-L Same DK	# S's		Won	# S's		Amb. Clear	# S's	Avg. # of Trials to Acq.
H-L	40	6.18	H-L	33	6.91	won	24	7.33	amb.	14	12.57
									clr.	10	0.0
						lost	9	5.78	amb.	3	17.33
									clr.	6	0.0
			same	2	8.50	won	0	-	amb.	0	-
									clr.	0	-
						lost	2	8.50	amb.	2	8.50
									clr.	0	-
			DK	5	0.40	won	3	2.00	amb.	1	6.00
									clr.	2	0.0
						lost	2	0.0	amb.	0	-
									clr.	2	0.0
			L-H	0	-	won	0	-	amb.	0	-
									clr.	0	-
						lost	0	-	amb.	0	-
									clr.	0	-
L-H	40	2.72	L-H	29	1.75	lost	9	0.22	amb.	3	0.67
									clr.	6	0.0
						won	20	2.45	amb.	10	4.89
									clr.	10	0.0
			DK	5	1.00	lost	2	0.0	amb.	0	-
									clr.	2	0.0
						won	3	1.67	amb.	1	5.00
									clr.	2	0.0

Table 6, Continued
AVERAGE NUMBER OF TASK TRIALS REQUIRED FOR P TO ACQUIRE O'S PROCEDURAL EXPECTATIONS

Status	# S's	Perf. Expect.		Task Perf.		Amb/Clar of P.E.		# S's	# of Trials to Acq.
		Avg. # of Trials to Acq.	H-L Same DK # S's	Avg. # of Trials to Acq.	Won Lost # S's	Avg. # of Trials to Acq.	Amb. Clear		
			same 4	7.00	lost 0	-	amb. 0	0	-
					won 4	7.00	clr. 0	0	-
							amb. 4	4	7.00
							clr. 0	0	-
			H-L 2	12.50	lost 1	9.00	amb. 1	1	9.00
							clr. 0	0	-
					won 1	16.00	amb. 1	1	16.00
							clr. 0	0	-

NOTE: For subjects who never "acquire" the word-size rule the number of trials is limited by the length of the experiment and in the ambiguous condition when the subject learns the word-size rule. These averages therefore are underestimates of the number of trials (or length of time) required to acquire the word-size rule for subjects in the ambiguous condition.

While these findings are preliminary and are subject to confirmation, in further research, they do appear to support and are consistent with the findings on the effects of status, performance expectations and clarity/ambiguity of procedural expectations upon acquisition of procedural expectations. Further investigation on the speed or rate of acquisition has implications for other fields of study such as conflict resolution, learning and socialization theory.

Also, further work should be done on the mechanisms for resolving differences. Some kinds of tasks may require resolution of differences in order to achieve success, others may not. In situations where resolution of differences is not necessary it is important to understand the factors which determine whether a resolution of differences is achieved. During the post-experimental interview some subjects indicated that in order to resolve the differences they went along with their competitor (even when he was lower status). Some indicated that while they went along with him, they "tried to beat him at his own game." Other subjects expressed some hostility toward their opponent for scoring off what they considered to be eligible words. Some subjects expressed a desire to confront their opponent, especially those with lower status opponents,

about their differences in rules. Other subjects stubbornly refused to go along with their competitor, even when (in some instances) he was of higher relative status.

CHAPTER VI

Summary and Conclusions

Summary

This research was profoundly influenced by the Expectation States Theory of Joseph Berger and associates and by Lynn Brody's work on procedural expectations and violations of procedural expectations.

The Berger and associates' (1966, 1974) influence was concerned with the concepts of status characteristics, diffuse status characteristics, and performance expectations. Status characteristics are those qualities of persons such as age, sex, or occupation which, first, differentiate them from other persons and, second, which are evaluated as "better" or "worse," "high" or "low." This work identifies two kinds of evaluation: specific and general (diffuse). Judgements of specific abilities are evaluations made with reference to specific traits associated with the status characteristics; e.g., professors have a large vocabulary. Also, these specific evaluations are generalized (or become diffuse); a professor not only has a large

vocabulary but is generally knowledgeable. These specific evaluations which become general (diffuse) consist of what is termed the diffuse status characteristic.

In a situation where P and O are engaged in a goal-oriented task, it is assumed that they will be motivated to determine their relative task abilities. These perceptions of relative task ability are called performance expectations. Status characteristics such as occupation, sex, age, and so forth, which differentiate P and O--when there are no other available criteria for predicting their expertise at the task--will become the basis for P's and O's relative performance expectations at the task. Performance expectations determine the observable prestige order of the group.

In Brody's work (1975, 1977) procedural expectations are conceptualized as moral norms. There it was demonstrated that actors who are perceived as being capable, i.e., for whom high performance expectations are assigned, are also seen as being moral. In the present study Brody's conceptualization of procedural expectations is extended to include rules of the game. It is assumed that actors who are perceived as being capable, i.e., have high performance expectations assigned to them, are also seen as being knowledgeable of task rules (rules of the game). Here, as in

Brody's work, performance expectations are assumed to precede the assignment of and are related in degree to procedural expectations.

The present study also extended Brody's theory to include the conception of acquisition of procedural expectations, acquisition being the extent to which an actor (P) adopts another actor's (O) procedural rules as his own. It was posited that where P and O's procedural rules (or expectations) concerning a task differ, P will be more apt to acquire (or adopt) O's rules in preference to his own if P holds relatively higher initial performance expectations for O than P' (himself) and, conversely, if P holds relatively lower performance expectations for O than for P', P will be less apt to adopt O's procedural rules.

Where P's initial performance expectations are confirmed by his knowledge of relative task performance, the effect of his initial relative performance expectations are supported; but where they are not confirmed, the effect of his initial relative performance expectations is weakened. This is posited to be a function of unequal status differences between the subject's and the opponent's status in the H-L versus the L-H status condition.

Another conception introduced in this work was the clarity or ambiguity with which procedural rules are communicated to the actors. The theory predicted that under conditions of clarity, in which the procedural rules for the task are stated explicitly, little difference between P's and O's perception of the rules would occur.³² Under conditions of ambiguity, in which the procedural rules are communicated within the context of task interaction (implicit), disagreement between P and O concerning the procedural rules is more probable. The actors are assumed to be motivated to resolve the difference between their procedural rules and in order to do so refer to their initial relative performance expectations. The differences in their rules are predicted to be resolved in favor of the actor who is seen as being initially more capable at the task (has higher initial relative performance expectations assigned to him). Thus, the process of acquisition of procedural expectations is seen as occurring in conditions where procedural expectations are ambiguous, the direction of acquisition being determined by relative initial performance expectations.

³²Under conditions of agreement between their procedural expectations, actors would have no occasion to refer to initial relative performance expectations.

A laboratory experiment was designed and executed in order to test the theoretical derivations. There were three independent variables, performance expectations (high and low), confirmation/non-confirmation of initial relative performance expectations, and clarity or ambiguity of procedural expectations. The dependent variables were the acquisition of procedural expectations and agreement or difference between P's and O's procedural expectations.

Ninety-three subjects were randomly assigned to one of four experimental conditions. Thirteen subjects were disqualified because they did not meet the scope conditions of the theory. There were a net of twenty subjects in each of the four experimental conditions.

The subjects were introduced to a high or low status confederate at the beginning of the experiment. Their task was to play a word game with their opponent. Half of the subjects were explicitly told a word-size rule and half were not. Those told the rule operated under a condition of clarity, and those not told the word-size rule operated under a condition of ambiguity of procedural expectations. All subjects' words were scored according to the word-size rule, regardless of whether the rule was explicitly given to them before they started the task. Disagreement between the subjects and the confederate occurred when they used

different word-size rules to construct words and/or to score each other's words. The subject's acquisition of the confederate's word-size rule occurred when the subject began to adopt or use the confederate's word-size rule in constructing his words. The proportion of task trials in which the subject used the confederate's word-size rule was a measure of acquisition of the confederate's procedural expectations (word-size rule).

Following the experiment, subjects were interviewed to determine their initial relative performance expectations for themselves and their opponent. Confirmation or non-confirmation of the subject's initial relative performance expectations was a function of who won the game compared with whom the subject initially expected to win.

The data generally supported the predictions derived from the theory. Subjects in the L-H status condition tended to assign L-H performance expectations to themselves and their opponents, respectively, and under conditions of rule ambiguity acquired their opponent's rules more readily than subjects in the H-L status condition who tended to assign H-L performance expectations to themselves and their opponents, respectively. Non-confirmation of initial relative performance expectations weakened the effect of the subject's H-L initial relative performance

expectations in the H-L status condition.

CONCLUSIONS

Clarity/Ambiguity of Procedural Expectations and Acquisition of Procedural Expectations

The data support the theoretical derivations. The following conclusions seem justified:

1) The differential performance expectations that P holds for P' and O produce an observable difference in P's acquisition of O's procedural expectations.

2) The differences in acquisition of procedural expectations between the conditions are substantial and are in the predicted direction.

3) Under conditions of ambiguity of procedural expectations conclusions 1) and 2) are justified. Under conditions of clarity of procedural expectations, differential performance expectations that P holds for P' and O do not produce an observable difference in P's acquisition of O's procedural expectations. This lack of difference was predicted.

4) Confirmation/non-confirmation of P's initial relative performance expectations for P' and O had little or no effect on the above relationship except where the H-L initial performance expectations were not confirmed.

Recommended Revisions

Based on the experience with the present research a number of revisions are recommended for future research designs.

In Brody's research (1975:85) some concern was expressed that the status discrepancy between the H-L and L-H conditions were not equal. This study utilized the same operationalization of the external status characteristic as Brody with the following exceptions: First, this study used male subjects and Brody used females. Second, this study restricted the age and class standing of subjects to ages 20 - 29 and to college sophomores, juniors, and seniors rather than to all undergraduates. This was done because some preliminary testing indicated that some freshmen or students below the age of twenty experienced difficulty in perceiving a status difference between themselves and high school students. Even so, it appears that the differences between the subjects and their high school student opponents was not as great as that between the subjects and their college professor opponents. Additional refinement in the operationalization of status differences needs to be made in future testing of the theory.

Another theoretical and experimental design problem has to do with the measurement of the rate of acquisition.

The present study did not attempt to develop this concept and incorporate it into the theory. Future work done on this concept will necessitate redesigning the experiment to enable the time and/or number of task trials following the initial reception of the word-size rule to be the same for each condition. In this experiment all of the subjects exposed to the explicit statement of the word-size rule could be compared; however, for subjects who learned of the rule through interaction, while comparisons could be made, they learned of the rule at different times during the experiment and therefore had different numbers of task trials to acquire the rule. It would be important to make a trial-by-trial comparison after initial exposure to the rule between the subject's acquisition of the word-size rule in order to assess the rate of acquisition between the comparisons. At present, only rough estimates of average number of trials required to acquire the rule for the different conditions were computed.

Another problem associated with the experimental design was one concerning the criteria which limited the eligibility of words the subjects could use in the task. This problem was addressed by Brody (1975) in the discussion of the "benefit of the doubt" phenomenon. For practical reasons there is a point of diminishing returns on the

number of rules a subject can effectively remember during the task, even though the rules may be printed on the word and score sheets. Some subjects were scored off on words they thought they had correctly spelled, or on slang words they thought were acceptable, etc. Occasionally a subject would be scored off on spelling or some other error in addition to a violation of the word-size rule. This would tend to diminish the probability that the subject would notice why his one- or two-letter words were excluded. In these instances the subject usually repeated the violation on the next trial and at that point he would make the decision to "acquire" or to not "acquire" the rule. Generally, the confederate gave the subject the benefit of the doubt in scoring the subject's words, if there was any doubt about the acceptability of the word. Because of the limited time available for scoring the words, a simplified procedure for evaluating the acceptability of doubtful words would improve the reliability of the confederate's scoring.

Brody (1975:86) suggested the need for further work on the effect of various kinds of procedural rules. This study did employ different procedural rules (rules of the game) than did Brody (moral norms) within a different (or extended) theory. This theory connected the performance

expectations with acquisitions of procedural rules rather than with the level of the procedural rules, per se. The rules of the game were not conceptualized in the same way as moral norms (Brody conceptualized moral norms as existing in a high or low state). However, the findings of this study did support the assumption that actors who were assigned high performance expectations were also assumed to know the procedural rules (rules of the game) compared with actors who were assigned low performance expectations who were assumed not to know the procedural rules. This finding is consistent with Brody's theory which found that performance expectations and moral norms were related in degree.

Recommended Extensions of the Theory

It has been demonstrated in the present study that initial relative performance expectations affect acquisition of procedural expectations. It is also important to take into account the effect of knowledge of task performance. Webster and Sobieszek (1974) found that knowledge of task performance influences performance expectations. In order to better understand the process of acquisition of procedural expectations it is necessary to explicate the independent and interaction effects of

initial relative performance expectations and performance expectations (based on observed performance at the task) upon this process.

Another theoretical concern not fully developed by the present theory is the process of resolution of differences in procedural expectations between actors. This is important from the standpoint of conflict resolution as well as in understanding the mechanisms involved in maintaining the existing power and prestige order in groups.

A theoretical concern which would clarify the process of acquisition would be the development of the concept of rate of acquisition of procedural expectations. An understanding of the factors which are involved in the differential rate of acquisition would add to the present theory, which is only concerned with degree of acquisition.

Subjects in this study were asked if they would like to discuss the differences in the way their opponent scored their words and the way they scored the words. It was found that in the ambiguous conditions (C and D) only 11 percent of the lower status subjects (L-H) expressed an interest, compared with 90 percent of the higher status subjects (H-L), in discussing these differences. It would be useful in understanding the process of resolution of differences to be able to study the relationship of the

diffuse status characteristic, initial relative performance expectations and actual relative performance upon the willingness to openly confront the opponent and how this willingness to confront is related to acquisition of procedural expectations.

During the post-experimental interview, some subjects volunteered the information that even though they went along with their opponent's (confederate) word-size rule, they felt resentful. Some also indicated that their going along with the confederate's word-size rule was an expediency or in some cases they tried to "beat" their opponent "at his own game." An understanding of some of the feelings and motives the subjects had for acquiring the opponent's word-size rule would clarify the mechanism employed in the resolution of differences. This particular theory did not focus on cognitive aspects of the process of acquisition. Nevertheless, it would be valuable to extend the theory to include the cognitive aspects in anticipation of clarifying the process of acquisition of procedural expectations and the resolution of differences in procedural expectations.

APPENDIX A

EXPERIMENTAL PROCEDURES

1. Script For Experimental Instructions to Subject
2. Word Sheet
3. Score Sheet
4. Post-Experimental Interview
5. Debriefing Statement

APPENDIX A.1

SCRIPT FOR EXPERIMENTAL INSTRUCTIONS TO SUBJECT

Host greets S and leads S to his seat in the Activity Room. S is told that he is person number one and that he will be playing with an opponent (C) who is designated as person number two. He is told to watch and listen to the television in front of him.

Host thanks S and leaves and shuts the door of the Activity Room.

Experimenter's voice starts (on video tape)

HELLO, I AM A MEMBER OF THE RESEARCH TEAM OF SOCIAL SCIENTISTS WHO ARE CONDUCTING THIS STUDY. WE WOULD LIKE TO THANK YOU FOR JOINING US TODAY. WE HOPE THAT YOU FIND THIS TO BE AN INTERESTING EXPERIENCE.

WE AND OTHER SOCIAL SCIENTISTS ARE CURRENTLY CONDUCTING A LARGE NUMBER OF STUDIES TO FIND OUT WHETHER GROUPS USING NEW KINDS OF COMMUNICATION EQUIPMENT CAN WORK AS WELL TOGETHER AS DO FACE-TO-FACE GROUPS WORKING ON SIMILAR PROBLEMS. TODAY YOU ARE PARTICIPATING IN ONE OF THESE STUDIES. THE TWO OF YOU WILL WORK ON A SERIES OF PROBLEMS, AND YOU WILL COMMUNICATE TO EACH OTHER ABOUT THE SOLUTIONS TO THESE PROBLEMS BY WAY OF THE COMMUNICATION NETWORK WE HAVE DESIGNED. THE CLOSED CIRCUIT TELEVISION

WE ARE USING NOW IS A COMPONENT OF THIS SYSTEM.

FIRST, LET US INTRODUCE YOU TO EACH OTHER.

S is shown C's picture on the TV screen and, depending on which condition S is assigned to, is told:

Conditions A and C: PERSON NUMBER ONE IS A UNIVERSITY STUDENT AND PERSON NUMBER TWO IS DOCTOR GORDON, A UNIVERSITY PROFESSOR.

Conditions B and D: PERSON NUMBER ONE IS A UNIVERSITY STUDENT AND PERSON NUMBER TWO IS A HIGH SCHOOL STUDENT.

The experimenter stops the video tape recorder and goes to the Activity Room. He asks the subject to stand in front of the TV camera so that person number two can also see him. The experimenter focuses the TV camera upon the subject for a few seconds and then refocuses it upon the focus box. He then asks the subject to be seated and that the experimental instructions will be given next. The experimenter returns to the observation room and restarts the video tape recorder.

THE TASK THAT YOU ARE ABOUT TO START IS LABELED BY SOCIAL SCIENTISTS THE "WORD COGNITIVE ABILITY TEST." IT INVOLVES BEING ABLE TO CONSTRUCT AS MANY WORDS AS YOU CAN WITHIN A LIMITED TIME PERIOD FROM THE LETTERS WHICH APPEAR ON THE SCREEN. WE FIND THAT THE ABILITY IS A UNIQUE (STRESS

UNIQUE) ATTRIBUTE OF AN INDIVIDUAL AND THAT, FOR INSTANCE, ABILITIES SUCH AS VERBAL ABILITY OR MECHANICAL ABILITY DO NOT DETERMINE THE PERSON'S SUCCESS AT THE TASK. WE ALSO KNOW THAT OTHER SPECIALIZED ABILITIES LIKE BEING GOOD AT MATHEMATICS AND HAVING ARTISTIC TALENT ARE ALSO UNRELATED (STRESS UNRELATED) TO WORD COGNITIVE ABILITY.

WE ARE NOW READY FOR THE EXPERIMENTAL INSTRUCTIONS. YOU ARE ABOUT TO PARTICIPATE IN A STUDY OF PROBLEM-SOLVING IN TWO-PERSON GROUPS. THE TASK INVOLVES YOUR VIEWING LETTERS ON THE SCREEN IN FRONT OF YOU AND GENERATING AS MANY WORDS AS POSSIBLE FROM THE LETTERS CONTAINED ON THE SCREEN. A LETTER CAN BE USED IN EACH NEW WORD AS MANY TIMES AS THE LETTER APPEARS ON THE SCREEN DURING THAT TRIAL. SUPPOSE THAT THE SCREEN CONTAINS THE FOLLOWING LETTERS: A, B, C, D, E, F, G, H, I, T. (Flash letters) FROM THESE LETTERS THE FOLLOWING WORDS COULD BE CONSTRUCTED: (Show words) HIT, HAT, BAD, BET, BAIT, AND SO FORTH. (Fade video) YOU ARE ALLOWED TO LIST ANY WORDS WHICH YOU CAN THINK OF (Show rules of the game) EXCEPT FOREIGN WORDS, ABBREVIATIONS, SLANG WORDS AND WORDS WHICH ARE ORDINARILY CAPITALIZED. (Fade video)

PLEASE LOOK ON YOUR TABLE. ON THE TABLE YOU WILL FIND A PAD LABELED "WORD SHEET). (Show Word Sheet) THROUGH-OUT THE EXPERIMENT YOU WILL RECORD YOUR WORDS ON THIS PAD.

WHEN THE BUZZER GOES OFF IN YOUR ROOM YOU WILL HAVE SIXTY SECONDS TO COPY DOWN THE LETTERS FROM THE SCREEN ONTO YOUR WORD SHEET AND MAKE UP AS MANY WORDS AS POSSIBLE FROM THESE LETTERS AND LIST THEM ONE UNDER THE OTHER ON THE LINES.

(Point to words on the Word Sheet, illustrating with a pen that they are written on the lines one under the other) ON THE LINES PROVIDED FOR THEM ON THE WORD SHEET (Point to words on the Word Sheet) PLEASE PRINT ALL WORDS SO THAT THEY ARE EASILY READABLE (Point to legibly written words) FOR YOUR OPPONENT. (Fade video) PLEASE LOOK AT THE PAD NOW FOR A FEW SECONDS AND ACQUAINT YOURSELF WITH THIS PROCEDURE.

(Pause 10 sec.) (Monologue resumes) WHEN THE BUZZER GOES OFF THE SECOND TIME THIS MEANS THAT YOU ARE TO STOP WRITING THE WORDS AND PUT YOUR WORD SHEET IN THE BOX UNDER THE TV CAMERA SO THAT YOU CAN SEE EACH OTHER'S SHEETS ON THE TELEVISION SCREEN. SIMPLY DETACH EACH SHEET FROM YOUR PAD AND PUT IT IN THE BOX. (Illustrate detaching the Word Sheet and putting it in the box) IT IS IMPORTANT THAT YOU PLACE THE WORD SHEET WITH THE BOTTOM FACING THE CAMERA TO YOUR LEFT AND LEAVE IT THERE. (Illustrate with a pencil, pointing to the bottom of the sheet and the bottom of the box.) THIS WILL ALLOW THE CAMERA TO TRANSMIT THE INFORMATION ON YOUR WORD SHEET TO YOUR OPPONENT. (Fade video) LOOK AT THE BOX UNDER THE TV CAMERA LABELED "WORD AND SCORE

SHEETS." (Pause five seconds) AS SOON AS THE BUZZER GOES OFF TO SIGNIFY THE END OF THE TASK TRIAL PUT YOUR SHEET IN THIS BOX. AGAIN, THIS WILL ALLOW YOU TO SEE EACH OTHER'S WORDS SO THAT YOU CAN SCORE THEM.

THE SCORING PROCESS WILL BEGIN WHEN YOUR OPPONENT'S WORDS APPEAR ON THE SCREEN. PLEASE START THIS PHASE BY RECOPYING THE LETTERS FOR THAT TRIAL ONTO YOUR SCORE SHEETS. (Illustrate the copying of letters onto the Score Sheet) (Fade video) THIS IS NECESSARY BECAUSE WE ARE INTERESTED IN DISCOVERING THE AVERAGE NUMBER OF POSSIBLE WORDS THAT CAN BE MADE UP FROM THE DIFFERENT LETTER COMBINATIONS. AFTER COPYING THE LETTERS FROM THE SCREEN, YOU WILL COPY YOUR OPPONENT'S WORDS ONTO YOUR SCORE SHEET (Illustrate the copying of words onto the Score Sheet), COMPUTE HIS SCORE, AND ENTER THE TOTAL SCORE FOR YOUR OPPONENT ON YOUR SCORE SHEET. (Point to the place for the opponent's score on the Score Sheet) PLEASE TAKE A FEW SECONDS TO LOOK AT YOUR PAD LABELED "SCORE SHEET." (Fade video) (Pause 15 seconds)

NOTICE ON YOUR SCORE SHEET THAT EACH ELIGIBLE WORD RECEIVES ONE POINT. (Point to score box on the Score Sheet) (Fade video) (Read the following instruction for subjects in Conditions A and B only) REMEMBER THAT YOU ARE NOT ALLOWED TO MAKE UP WORDS WITH LESS THAN THREE LETTERS

IN THEM.

WHEN YOU HAVE COMPLETED THE SCORING OF YOUR OPPONENT'S WORDS YOU WILL REMOVE THE SCORE SHEET FROM THE PAD AND PUT IT ON TOP OF THE WORD SHEET IN THE "WORD AND SCORE SHEETS" BOX. LOOK AT YOUR TABLE FOR A FEW SECONDS AND LOCATE THE SCORE SHEET PAD. (Pause for 5 seconds) (Fade video) THE SCORE SHEET IS SIMPLY PLACED OVER THE WORD SHEET. IT IS PLACED DIRECTLY OVER WHERE THE WORDS ARE WRITTEN. (Illustrate placing the Score Sheet directly over the words on the Word Sheet) IT IS IMPORTANT FOR YOU TO PLACE YOUR SCORE SHEET AND WORD SHEET WITHIN THE BOX ON THE TABLE SO THAT THE CAMERA CAN PICK THESE COMMUNICATIONS UP AND TRANSMIT THEM TO YOUR OPPONENT. AGAIN, PLEASE MAKE SURE THAT YOUR SHEETS FACE THE CAMERA. (Point to sheets facing the camera) (Fade video)

AFTER YOUR OPPONENT HAS SCORED YOU, YOUR SCORE WILL APPEAR ON YOUR TELEVISION SCREEN, AND YOU ARE TO ENTER IT ON YOUR SCORE SHEET BY REMOVING IT FROM THE BOX, ENTERING YOUR SCORE AND THEN REPLACING IT IN THE BOX AS IT WAS. (Point to place on Score Sheet where S is to enter his own score) (Fade video) THE ENTIRE SCORING PROCESS WILL TAKE ONE MINUTE. THE SCORING PROCESS STARTS AS SOON AS YOU SEE YOUR OPPONENT'S WORD SHEET ON THE SCREEN AND ENDS WITH A BUZZER SOUNDING TWICE. THE NEXT TRIAL WILL BEGIN WHEN THE BUZZER

SOUNDS AGAIN.

PLEASE USE SHEETS CONSECUTIVELY. IN OTHER WORDS, FOR TRIAL ONE USE WORD SHEET NUMBER ONE AND SCORE SHEET NUMBER ONE, ETC. (Point to both sheets where the trial number appears) (Fade video) FOR REFERENCE, THE WORD AND SCORE SHEETS HAVE A SUMMATION OF THE RULES THAT WE HAVE ALREADY TALKED WITH YOU ABOUT. NOTICE THAT THERE IS ALSO A SUMMATION OF THE RULES OF THE GAME ON YOUR TABLE IN FRONT OF YOU. (Point to Rules of the Game) (Fade video)

YOU ARE TO USE THE PEN THAT IS PROVIDED FOR YOU ON THE DESK. ALL WORDS ARE TO BE LEGIBLY PRINTED ON THE WORD AND SCORE SHEETS.

TO AVOID CONFUSION, PLEASE DO NOT TURN THE PAGES OF ANY SHEETS EITHER BACKWARDS OR FORWARDS, UNTIL THE APPROPRIATE TRIAL COMES UP. LOOK ONLY AT THE SHEETS RELEVANT TO THE TRIAL YOU ARE WORKING ON.

THERE ARE TWO THINGS WHICH MAKE THIS TASK VERY IMPORTANT TO SOCIAL SCIENTISTS. WE KNOW FROM PREVIOUS STUDIES THAT THE CAPACITY TO MAKE UP AS MANY WORDS AS POSSIBLE WITHIN THE TIME ALLOTTED IS NOT (Emphasize Not) NECESSARILY RELATED TO SPECIALIZED SKILLS THAT THE INDIVIDUAL MIGHT POSSESS, SUCH AS MECHANICAL, ARTISTIC, VERBAL OR MATHEMATICAL ABILITY. THAT IS, THOSE PEOPLE WHO MIGHT HAVE HIGH SKILLS ARTISTICALLY, MATHEMATICALLY, MECHANICALLY, OR

VERBALLY ARE NOT NECESSARILY BETTER AT THIS TASK THAN ANY-BODY ELSE. SECOND, THE SUCCESS AT THIS TASK SEEMS TO BE DEPENDENT ON A UNIQUE (Emphasize Unique) ABILITY OF THE SUBJECTS TO WORK UNDER THE TIME ALLOTTED AND THEIR ABILITY TO INTUITIVELY DISCERN PATTERNS.

BEFORE WE START SOME PRACTICE TRIALS LET US REVIEW THE PROCEDURE. WHEN THE BUZZER SOUNDS, YOU SHOULD START; AND WHEN IT SOUNDS AGAIN SIXTY SECONDS LATER, YOU SHOULD STOP AND BEGIN TO SCORE YOUR OPPONENT. NEXT, ENTER HIS SCORE ON THE SCORE SHEET AND PUT THE SCORE SHEET INTO THE BOX. AS SOON AS THE SCORE SHEET (WITH YOUR SCORE ON) APPEARS ON THE SCREEN REMOVE YOUR SCORE SHEET FROM THE BOX AND RECORD YOUR SCORE BENEATH YOUR OPPONENT'S IN THE APPROPRIATE SPACE, THEN REPLACE YOUR SCORE SHEET IN THE BOX.

YOU ARE SCORED ON SPEED, ACCURACY AND THE QUANTITY OF WORDS THAT YOU MAKE UP. THE PERSON WHO WINS THE MOST POINTS WINS THE GAME. AT THE END OF TWENTY TRIALS THE EXPERIMENTER WILL COLLECT YOUR SCORE SHEETS AND COMPUTE YOUR TOTALS SCORES IN ORDER TO DETERMINE WHO WON THE GAME. THIS INFORMATION WILL BE GIVEN TO YOU LATER.

IN THIS PARTICULAR EXPERIMENT YOU ARE IN SEPARATE AND IDENTICAL ROOMS WITH NO COMMUNICATION LINK BETWEEN THE ROOMS; HENCE, IF YOU TALK YOU WILL NOT BE ABLE TO HEAR EACH OTHER. (Repeat the following instruction for conditions

A and B only) REMEMBER, ONLY WORDS WHICH CONTAIN THREE LETTERS OR MORE ARE ALLOWED.

YOU ARE NOT ALLOWED TO USE FOREIGN WORDS, ABBREVIATIONS, WORDS WHICH ARE NORMALLY CAPITALIZED OR SLANG WORDS. ALSO, REMEMBER THAT YOU CAN ONLY USE EACH LETTER FROM THE SCREEN ONCE IN EACH WORD THAT YOU MAKE UP, AND YOU CAN ONLY USE THE LETTERS ON THE SCREEN FROM THE TRIAL THAT YOU ARE WORKING ON TO MAKE UP YOUR WORDS. (Show Rules of the Game)
(Fade video)

LET US TRY A FEW PRACTICE TRIALS. THESE TWO TRIALS WILL NOT (Emphasize Not) COUNT ON YOUR SCORE. NOTICE THAT THE TWO TOP WORD AND SCORE SHEETS ARE LABELED "PRACTICE." USE THESE FOR YOUR PRACTICE TRIALS. WHEN YOU HEAR THE BUZZER, BEGIN.

Buzzer sounds once

Show letters for first practice trial

Wait sixty seconds

Buzzer sounds once

Show Confederate's Practice Word Sheet

Score Subject's words

Put Score Sheet (with subject's score) in box

After sixty seconds have elapsed sound buzzer twice

LET US PRACTICE ONE MORE TRIAL.

(Repeat above sequence for the second practice trial)

I WILL COME TO YOUR ROOM TO SEE IF YOU UNDERSTAND THE PROCEDURE.

Experimenter goes into the subject's room and checks the experimental equipment and materials completed by the subject in order to make sure that the subject is following directions. If the subject asks procedural questions the Experimenter reiterates the appropriate instructions already given on videotape. If the subject asks other questions, the Experimenter advises him to do the best he can during the game. The Experimenter says, ALL RIGHT, and leaves and shuts the Activity Room door and returns to the observation room where he begins the videotape with the task trials.

The twenty trials are conducted in the same sequence as reported for the practice trials.

When the experiment is over, the experimenter turns off the videotape recorder and goes to the activity room. He collects the subject's materials in the box and ushers him to the debriefing room. In the debriefing room the experimenter administers the Post-Experimental Questionnaire, reads the Debriefing Statement, answers any questions the subject has, thanks and pays the subject for his time and participation in the experiment and then ushers him out.

<h1 style="margin: 0;">word sheet</h1>		Trial:																				
		A B C D																				
<p>1. CONSTRUCT WORDS FROM LETTERS ON THE SCREEN FOR SIXTY(60) SECONDS.</p> <p>A. COPY LETTERS FROM THE SCREEN: 7</p> <div style="border: 1px solid black; height: 40px; width: 400px; margin: 10px auto;"></div> <p>B. WRITE WORDS BELOW(One per Line):</p> <table style="width: 100%; border-collapse: collapse;"><tr><td style="border-bottom: 1px solid black; height: 30px; width: 50%;"></td><td style="border-bottom: 1px solid black; height: 30px; width: 50%;"></td></tr><tr><td style="border-bottom: 1px solid black; height: 30px;"></td><td style="border-bottom: 1px solid black; height: 30px;"></td></tr><tr><td style="border-bottom: 1px solid black; height: 30px;"></td><td style="border-bottom: 1px solid black; height: 30px;"></td></tr><tr><td style="border-bottom: 1px solid black; height: 30px;"></td><td style="border-bottom: 1px solid black; height: 30px;"></td></tr><tr><td style="border-bottom: 1px solid black; height: 30px;"></td><td style="border-bottom: 1px solid black; height: 30px;"></td></tr><tr><td style="border-bottom: 1px solid black; height: 30px;"></td><td style="border-bottom: 1px solid black; height: 30px;"></td></tr><tr><td style="border-bottom: 1px solid black; height: 30px;"></td><td style="border-bottom: 1px solid black; height: 30px;"></td></tr><tr><td style="border-bottom: 1px solid black; height: 30px;"></td><td style="border-bottom: 1px solid black; height: 30px;"></td></tr><tr><td style="border-bottom: 1px solid black; height: 30px;"></td><td style="border-bottom: 1px solid black; height: 30px;"></td></tr><tr><td style="border-bottom: 1px solid black; height: 30px;"></td><td style="border-bottom: 1px solid black; height: 30px;"></td></tr></table>																						
<p>2. AT THE END OF 60 SECONDS(When The Buzzer Sounds) BEGIN SCORING BY DETACHING THIS SHEET AND PLACING IT IN THE BOX UNDER THE TV CAMERA.</p> <p>3. NOW GO TO THE SCORE SHEET AND BEGIN SCORING.</p>																						

APPENDIX A.3

<h1 style="margin: 0;">score sheet</h1>		Trial: <div style="text-align: center; font-weight: bold; letter-spacing: 5px;">A B C D</div>
INSTRUCTIONS FOR SCORING:		
1. COPY LETTERS FROM TV SCREEN: →	<div style="border: 1px solid black; width: 300px; height: 30px; margin: 0 auto;"></div>	
2. WRITE OPPONENT'S WORDS BELOW:	↙	
	<div style="display: flex; justify-content: space-between;"><div style="width: 45%; border-bottom: 1px solid black; height: 20px;"></div><div style="width: 45%; border-bottom: 1px solid black; height: 20px;"></div></div> <div style="display: flex; justify-content: space-between;"><div style="width: 45%; border-bottom: 1px solid black; height: 20px;"></div><div style="width: 45%; border-bottom: 1px solid black; height: 20px;"></div></div> <div style="display: flex; justify-content: space-between;"><div style="width: 45%; border-bottom: 1px solid black; height: 20px;"></div><div style="width: 45%; border-bottom: 1px solid black; height: 20px;"></div></div> <div style="display: flex; justify-content: space-between;"><div style="width: 45%; border-bottom: 1px solid black; height: 20px;"></div><div style="width: 45%; border-bottom: 1px solid black; height: 20px;"></div></div> <div style="display: flex; justify-content: space-between;"><div style="width: 45%; border-bottom: 1px solid black; height: 20px;"></div><div style="width: 45%; border-bottom: 1px solid black; height: 20px;"></div></div> <div style="display: flex; justify-content: space-between;"><div style="width: 45%; border-bottom: 1px solid black; height: 20px;"></div><div style="width: 45%; border-bottom: 1px solid black; height: 20px;"></div></div> <div style="display: flex; justify-content: space-between;"><div style="width: 45%; border-bottom: 1px solid black; height: 20px;"></div><div style="width: 45%; border-bottom: 1px solid black; height: 20px;"></div></div> <div style="display: flex; justify-content: space-between;"><div style="width: 45%; border-bottom: 1px solid black; height: 20px;"></div><div style="width: 45%; border-bottom: 1px solid black; height: 20px;"></div></div> <div style="display: flex; justify-content: space-between;"><div style="width: 45%; border-bottom: 1px solid black; height: 20px;"></div><div style="width: 45%; border-bottom: 1px solid black; height: 20px;"></div></div> <div style="display: flex; justify-content: space-between;"><div style="width: 45%; border-bottom: 1px solid black; height: 20px;"></div><div style="width: 45%; border-bottom: 1px solid black; height: 20px;"></div></div>	
3. COUNT YOUR OPPONENT'S TOTAL NUMBER OF ELIGIBLE WORDS AND ENTER HERE:	→ <div style="border: 1px solid black; width: 100px; height: 25px; display: inline-block;"></div>	
4. PLACE THIS SCORE SHEET IN THE BOX UNDER THE TV CAMERA.		
5. WHEN YOUR SCORE APPEARS ON THE TV SCREEN REMOVE THIS SCORE SHEET FROM THE BOX AND ENTER <u>YOUR SCORE</u> HERE, THEN REPLACE THIS SCORE SHEET IN THE BOX.	↘ <div style="border: 1px solid black; width: 100px; height: 25px; display: inline-block;"></div>	

APPENDIX A.4

POST-EXPERIMENTAL INTERVIEW

INSTRUCTIONS TO INTERVIEWER: Record the subject's number, condition, and the date and time the interview began; and then proceed to read the following introductory paragraph, and then ask the questions as printed and record the answers in the spaces provided.

DATE: Day/Month/Year TIME INTERVIEW BEGAN SUBJECT # CONDITION

THANK YOU FOR PARTICIPATING IN THE STUDY. I WOULD LIKE TO DISCUSS YOUR REACTIONS TO TODAY'S STUDY, BUT FIRST I WOULD LIKE TO OBTAIN SOME PERSONAL INFORMATION.

1. NAME OF SUBJECT _____
2. AGE AT LAST BIRTHDAY _____
3. CLASS STANDING _____
4. MAJOR FIELD OF STUDY _____
5. HOW DID YOU FEEL ABOUT THE TASK? _____

6. HAVE YOU EVER READ OR HEARD ABOUT A STUDY LIKE THIS ONE BEFORE? (If Yes, probe for a description of the study.)

7. HAVE YOU EVER PARTICIPATED IN A STUDY LIKE THIS BEFORE?
(If Yes, probe for a description of the study.)

8. AFTER YOU WERE INTRODUCED TO YOUR OPPONENT DID YOU EXPECT
TO DO BETTER, THE SAME, OR WORSE THAN HE DID ON THE TASK?

Better _____; Same as Opponent _____; Worse than Opponent _____

WHY? _____

9. HOW DID YOU FEEL ABOUT YOUR OPPONENT? WHY? _____

10. WHO WAS YOUR OPPONENT? (Name, Age, Occupation) _____

FOR CONDITIONS A AND B ASK Q. 11

11. WHAT WAS THE RULE ABOUT THE NUMBER OF LETTERS YOU COULD
USE IN MAKING YOUR WORDS? _____

FOR CONDITIONS C AND D ASK Q. 12

12. WAS THERE ANY UPPER OR LOWER LIMIT ON THE NUMBER OF LETTERS
YOU COULD USE IN THE WORDS YOU MADE? Yes _____; No _____;

Don't Know _____.

IF YES, ASK:

WHAT WAS IT? _____

HOW DID YOU FIND OUT ABOUT IT? _____

WHEN DID YOU FIND OUT ABOUT IT? _____

13. WOULD YOU LIKE TO TALK TO YOUR OPPONENT ABOUT THE WAY HE
SCORED YOUR WORDS? Yes _____; No _____

IF YES, ASK: WHAT WOULD YOU LIKE TO DISCUSS WITH HIM?

14. DID YOU WONDER WHAT THE PURPOSE OF THE EXPERIMENT WAS?

YES _____; NO _____

IF YES, ASK: WHEN? WHY? HOW DID IT AFFECT YOU (performance)?

15. DID YOU WONDER WHAT IDEAS (hypotheses) WERE BEING TESTED?

YES _____; NO _____

IF YES, ASK: WHEN? WHY? HOW DID IT AFFECT YOU (performance)?

16. WHO DO YOU THINK WON THE GAME? _____

17. DID YOU NOTICE ANYTHING UNUSUAL ABOUT THE EXPERIMENT?

YES _____; NO _____

IF YES, ASK: WHAT? WHY? WHEN? HOW DID IT AFFECT YOU (performance)? _____

18. DO YOU HAVE ANY QUESTIONS YOU'D LIKE TO ASK ME ABOUT THE EXPERIMENT? _____

NOTE TO INTERVIEWER: Read the DEBRIEFING STATEMENT now. Afterward, pay the subject and usher him out of the debriefing room. Enter the time at the END of the interview and compute the total interview time and enter below;

END OF INTERVIEW: _____ TOTAL INTERVIEW TIME: _____

OUT OF SCOPE _____ BECAUSE: _____

APPENDIX A.5

DEBRIEFING STATEMENT

Now I would briefly like to explain in a little more detail what we are trying to study in the experiment today. We are studying how people develop expectations of themselves and others and how those expectations are communicated and enforced within groups. In order to study this we had to create a situation where the interactions with your opponent were arranged.

FOR CONDITIONS C AND D READ: He was given a slightly different set of rules than you were. We are interested in studying your reactions to him as he applied a different set of rules in scoring your words than you were given (discounted words with one or two letters). Also, we were interested in studying how you resolved the differences in rules; that is, if you would continue to use the rules you were originally given or if you would adopt his rules and not make up any more one or two letter words.

This, briefly, is the reason why we had to organize the experiment this way. If you had known that he was using different rules we would not have obtained the information we were interested in.

Since the study involves some fictions WE WOULD GREATLY APPRECIATE IT IF YOU DID NOT TELL ANYBODY ELSE ABOUT IT. They might participate later, and as you can see, such information would greatly change the way they perform and therefore their data could not be included. CAN I HAVE YOUR WORD THAT YOU WON'T DISCLOSE THIS INFORMATION? (pause) If anyone asks you about the experiment, it is all right to tell them that it was a game concerning word formation. BUT DON'T TELL THEM ABOUT THE REST. OKAY?

Thank you very much.

Obviously, because your opponent's answers were arranged, no one really won the game.

If there anything else you'd like to comment on or ask concerning your participation in today's experiment?
(pause and record response)

We will pay you four dollars for your participation today.

INTERVIEWER THANKS SUBJECT AND GIVES HIM FOUR DOLLARS.

APPENDIX B

PROCEDURE FOR RECRUITMENT OF SUBJECTS

1. Introductory Statement for Classroom Recruitment
2. Classroom Sign-up Sheet
3. Ad for Student Newspaper and Campus Bulletin Boards
4. Answer to Phone Answering Machine
5. Lab Appointment Dialogue

APPENDIX B.1

INTRODUCTORY STATEMENT FOR CLASSROOM RECRUITMENT

Hello, my name is _____. I'm a graduate student in the Sociology Department. I am working with some other sociologists in conducting a study of small group interactions. We are doing some experiments using word games in studying how people interact in groups. We are presently conducting the studies here on campus and would like to invite you to join one of our experimental groups. It requires about an hour-and-a-half of your time, for which you will be paid four dollars.

If you are interested in participating, please raise your hand and I will hand you a short questionnaire to fill in. I will collect them:

_____ (when) _____ (where).

We will contact you by phone to arrange a time for you to participate. Are there any questions? (answer them)

Thank you

APPENDIX B.2

CLASSROOM SIGN-UP SHEET

DEAR FELLOW STUDENT

We are conducting some studies on small group interaction and would like to invite you to join one of our experimental groups. It would involve about 1-1/2 hours of your time, for which you will be paid \$4.00. We can arrange for you to participate at a time which will be convenient.

If you are interested, please fill in the following questionnaire and leave it with our representative. If you have any questions you may call us at: 948-6640.

NAME _____

AGE _____

CLASS _____ (freshman, sophomore, etc.)

MAJOR _____

RACE _____

TELEPHONE NUMBER _____

BEST DAY AND TIME TO TELEPHONE YOU _____

PREFERRED DAY AND TIME TO PARTICIPATE IN EXPERIMENT

Someone will call you and make an appointment for you to come to the lab.

Thank you,

AD FOR STUDENT NEWSPAPER AND CAMPUS BULLETIN BOARDS

MALE STUDENTS
PARTICIPATE IN A...
WORD GAME
EXPERIMENT
AND EARN \$4⁰⁰
CALL 948-6640

APPENDIX B.4

ANSWER TO TELEPHONE CALLS ON ANSWERING MACHINE

"Hello, this is the Word Game Experiment at number 948-6640. We are sorry that no one is here to receive your call at this time. If you are interested in information about or in participating in the Word Game Experiment please leave your name and phone number and the best time and day to reach you. Someone will return your call."

APPENDIX B.5

LAB APPOINTMENT DIALOGUE

"Hello, my name is _____. I'm working on the Word Game Experiment and I'm returning your call. In order to arrange for you to participate we need to obtain some information. Are you presently attending the University of Hawaii?" (record answer) "What is your class standing?" (record year in college) "How old were you on your last birthday?" (record age) "When is the best time for you to come to the lab and participate in one of our groups?" (arrange a time for the person to come to the lab only if he is in scope; i.e., white, male, aged 20-29, and a sophomore, junior or senior at the Manoa Campus) "We are located at _____. We will see you on (day) (time). Thank you. Good-bye."

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