

*Robert Sherry*

EXPECTATION STATES THEORY:  
THE STATUS OF A RESEARCH PROGRAM\*

Joseph Berger  
Stanford University

David G. Wagner  
University of Iowa

Morris Zelditch, Jr.  
Stanford University

Technical Report No. 90

Stanford University

June 1983

\*We are grateful to Thomas L. Conner, M. Hamit Fisek, and Murray Webster, Jr., for valuable comments and suggestions on different parts of this paper. We are also pleased to acknowledge the support of National Science Foundation grants G 13314 and G 23990, which funded much of the original work on expectation-states theories, and grants GS 1170 and GS 34182, which funded some of the various branches that have developed and elaborated this work.

To our colleagues  
who share with us the goal of creating  
an evolving research program.

## I. Introduction

The present article reviews the state of expectation-states theories as of the first of June, 1983. We have earlier reviewed the state of the theory of status characteristics and expectation states and its applications (Berger et al., 1980), and E. G. Cohen has reviewed interventions based on it (E. G. Cohen, 1982); but we have published no overall view of the state of expectation-states theories since 1974 (Berger et al., 1974). Status characteristics theory is only one branch of expectation-states theories, hence to confine a review of expectation-states theories to this one branch is both incomplete and misleading. "Expectation-states theory," as it is often called (even by us), is not a theory. Rather, it is a family of interrelated theories. Our purpose in the present article is to review the family as a whole.

Expectation-states theories are not a "paradigm" either (Kuhn, 1962; 1970). That is, they do not constitute an all-embracing strategy of research and theory construction orienting the entire field of sociology or social psychology. They do not define what the problems of the field as a whole should be, how to approach them, or how to assess solutions to them. Rather, as a unit they lie somewhere between a theory and a paradigm, close to what Lakatos has called a "theoretical research program" (Lakatos, 1968, 1970).

Because this level of analysis of theoretical and research activity is somewhat unfamiliar, we devote some attention in part II of this paper to identifying the elements of such a "program" and how they are related to each other. Then, in part III we review the initial formulation of expectation-states theory: the phenomenon with which it was initially

concerned, how it explained this phenomenon, and subsequent research based on this original theory. Part IV goes on to review offshoots proliferating from this original theory, including a theory of status characteristics, a theory of sources of self-evaluation, and a theory of justice. These are in all cases relatively early proliferations that are by now well-established branches of the program. Before turning to more recent offshoots of the program, we pause in part V to identify the substantive, methodological, and metatheoretical elements that these earlier branches have in common, which we refer to as the "core" of the program. Finally, in part VI we describe four of the more recent proliferations of the program, including a theory of personality characteristics, a theory of reward expectations, a theory of moral characteristics, and approaches to a theory (not yet formulated) of status cues.

## II. Expectation-States Theories as a Theoretical Research Program

"Expectation-states theory" is not a "theory" in the usual textbook sense of the term. On the other hand, neither is it a "paradigm" in Kuhn's sense. A "theory" is usually defined as a set of systematically interrelated concepts and propositions that are general and have empirical import. Berger and Conner's theory of the power-prestige process (Berger and Conner, 1969, 1974) or Berger et al.'s theory of status characteristics and expectation states (Berger et al., 1966, 1972) are theories in this sense. But "expectation-states theory" is not a theory, it is a family of interrelated theories. It includes both the power-prestige and the status characteristics theories together with a number of other theories as well. It is therefore better described as a "theoretical research program" (cf. Lakotos, 1968, 1970), rather than a theory.

A theoretical research program consists of an interrelated set of theories (together with theoretical research relevant to these theories and applied research grounded in them). This larger "family" of theories is not a "paradigm" in Kuhn's sense because its domain is much more limited. As everyone by now knows, "paradigm" is a word with a large number of meanings (see Masterman, 1970), including everything from concrete exemplars (like Durkheim's Suicide) to what Gouldner has called the nonempirical "background" assumptions of any theory (Gouldner, 1970, pp. 29-35) or what Berger and others have called the "orienting strategy" that guide the construction of theories (see Homans, 1967, and Zelditch, 1979). Indeed, Kuhn tends to cover all kinds of scientific activity by the term, failing to distinguish materially different levels and kinds of theoretical activity. The chief defect of treating all kinds of scientific activity as a single, seamless web is that it attributes to all science the properties of theoretical strategies. An orienting strategy is a set of interrelated concepts, directives, and values that guide investigators in identifying problems, formulating solutions and assessing results. They are presupposed by any inquiry, but are for the most part nonempirical in character and relatively incorrigible. They define what the subject matter of a discipline is, how to conceptualize its basic elements, prescribe how to reason about these elements, and from these features they derive a heuristic set of problematic features of the empirical world. They define what the goals of inquiry are, they presuppose what there is and how we know what there is, they legislate criteria of assessment, and from all these elements they derive a set of methods of observation and inference. All these features of a strategy involve, at some point, one or more ultimate values (for example, if one wishes value-free inquiry one must nevertheless come to terms with the fact that value-neutrality is an ultimate value and

one not "provable" by reference to any empirical inquiry.) Hence, though they do change with time--with evidence of their fertility and with a number of extra-theoretical (cultural and political) factors--they are relatively speaking incorrigible, conflicts among strategies are usually irreconcilable, and change, when it does occur, tends to be discontinuous--i.e., noncumulative in character. Thus, it is not to strategies that one looks to observe "growth" of theory.

Lakatos (1968, 1970) has suggested that the proper unit for analysis of "growth" in fact lies somewhere between theories and paradigms at a level which he calls "theoretical research programs." Berger et al. (1974) have slightly redefined his concept in describing "expectation-states theory." For the present, a "theoretical research program" may be defined as a set of theories, theoretical research and applied research such that (1) the theories share some (not all) common concepts and assumptions, some metatheoretical elements, and some methods of observation and inference, (2) the theoretical research is relevant to the theories of the program, and (3) the applied research is grounded in the theories of the program.

Relative to paradigms such programs are in much closer touch with an empirical world. They consist not only of strategies for approaching the world but also of research that is oriented to testing, refining, extending and otherwise modifying theories. (By contrast, in Kuhn "normal science" typically involves filling in gaps; very little modification of theory occurs without large-scale revolutions in thought.) And they are in touch not only with "theoretical" research, i.e., research with a generalizing orientation; they also involve "applied" research, research concerned with identifying instances to which the theories of the program apply and to

testing implications of the theory for interventions that modify the world of empirical society. They typically also differ from paradigms in being highly eclectic, that is in being a mixture of elements that are not typically associated at the paradigm level. Expectation-states theory, for example, might well be described as a mix of elements of symbolic interactionism, Heiderian and Lewinian social psychology, behavioral sociology, and even the theory of action.

Relative to theories such programs are dynamic rather than static. The most important thing about them is that they grow. They grow primarily through both elaboration and proliferation. Elaboration involves the reformulation of a theory: for example, the earliest theory of status characteristics focussed on just one status characteristic and was later displaced by a more general theory dealing with multiple status characteristic (Berger and Fisek, 1974). Proliferation involves a shift in the domain of a theory: for example, status characteristics theory itself grew out of an earlier theory concerned with the emergence of power and prestige in initially undifferentiated groups. It arose by extending some of the concepts and propositions of this earlier theory to a body of (quite distinct) research dealing with groups initially differentiated in terms of status. The status characteristics theory explains a different set of phenomena than the original power-prestige theory and is in this sense a theory "of the same kind" only because both theories deploy some of the same concepts, assumptions, metatheoretical elements, and methods. One important difference between elaboration and proliferation is that in the former case one theory "advances over" and hence displaces an earlier theory whereas in the latter two or more distinct theories may continue to exist, side by side. The two kinds of growth, taken together, give rise

to a theoretical structure that looks something like a growing tree. The earliest formulation continues to grow and change, through elaboration, but later theories also proliferate from this growing body of work like so many branches off the trunk of the tree. A look at where "the theory" is at any given moment calls for a look at the whole shape of the tree, rather than one or another of its branches.

In describing the shape of this tree we divide the materials into four sections. In section III we describe the elaboration of the original branch of expectation-states theory, a theory concerned with the emergence and maintenance of power-prestige orders in initially undifferentiated groups. Section IV describes the three earliest, best-established proliferants of this original branch: First, a theory of the emergence of power-prestige orders in groups initially differentiated in terms of status; second, a theory of the sources of self-evaluation; and third, a theory of the "justice" of reward allocations. Section V marks a pause the purpose of which is to characterize the elements common to all four of these branches, hence its core or basic conceptual, metatheoretical, and methodological elements. In section VI we return to describing the branches of the tree, focussing on four of the more recent proliferants arranged according to stage of development. These include research on personal, as distinct from status, characteristics; research on moral characteristics; research on reward expectations; and, finally, research on task and status cues.

### III. Expectations and the Power and Prestige Order

The original concern of expectation states theory was with the emergence and maintenance of differences in power and prestige in small,



problem-solving groups. These processes were most evident in Bales' observations of small, informal, task-oriented groups whose members were presumably initially equal in status. (See Bales et al., 1951; Bales, 1953; Bales and Slater, 1955; Heinicke and Bales, 1953.) Bales found that inequalities in participation, and influence, regularly emerged in such groups. Once emerged, these inequalities were highly stable. And, with the possible exception of sociometric rankings, the various kinds of inequalities studied by Bales were highly intercorrelated. Research by others (most notably Harvey, 1953; Sherif et al., 1955; Whyte, 1943), demonstrated that established inequalities in power and prestige were also correlated with member's evaluations of specific units of performance. Independent of actual performance, "higher status" members were typically seen as performing better than "lower status" members.

Because they are so highly intercorrelated, we can conceptualize the behavioral inequalities observed by Bales et al., as the components of a unidimensional power-prestige order. This observable power and prestige order consists in (a) chances to contribute to the solution of the group's problem (action opportunities); (b) attempts to solve the group's problem (performance outputs); (c) communicated evaluations of such problem-solving attempts (reward actions), and (d) the exercise of influence (an individual changes his or her initial opinion after exposure to disagreement). These inequalities collectively are referred to as the observable power and prestige order of the group.

Berger (1958, 1960) and Berger and Conner (1969) were concerned with explaining the conditions under which inequalities in the observable power and prestige order emerge, and in explaining the fact that its components

are intercorrelated. Although results like Bales' had been found under a variety of circumstances, they seemed most likely to occur under the following conditions: First, when a group is committed to solving a problem the outcome of which is valued (i.e., a task in which members can distinguish a success state from a failure state); second, when it is assumed by the members that some characteristic or ability is instrumental to success or failure at the task (e.g., the determination of the task outcome is not simply a matter of chance); third, when the members of the group are oriented to a collective outcome (i.e., it is necessary and legitimate to take each others' behavior into account), and finally, when all the members are equal in terms of external statuses such as age, sex, education, race, etc.

Given these conditions, Berger and his colleagues assumed that individuals who begin as equals, in the course of collectively solving their group task develop differences in underlying (and unobservable) performance expectations for self and other. Performance expectations are stabilized anticipations of future task performances, and are based on evaluations of past behavior which the actor makes for self and which he can communicate through reward actions to the other. Hence, what is happening as expectations form is that evaluations and reward actions of specific past behaviors are giving rise to generalized anticipations of future behavior.

Once formed, such performance expectations are assumed to determine subsequent power and prestige behaviors. Thus, for example, if A is interacting with B, and A and B both have formed high expectations for A and low for B then we can expect that: A will initiate more performance

outputs to B than will B to A, B will give A more action opportunities than A will give to B, B is more likely to communicate positive reactions to A's performance than A is to B's, and B is more likely to be influenced by A than A is by B.\* Therefore, by this theoretical account, the intercorrelation of the various components of the power and prestige order is explained by the fact that they are all functions of the same underlying expectation-states structure, and so are related to each other in a systematic fashion.

Working within the framework of this general formulation of the theory of emergence, Fisek (1968, 1974) constructed a Markov chain model to describe this process as it occurs in initially undifferentiated three-person groups. Testing his model in a study of 59 such groups engaged in open interaction, Fisek found (unexpectedly) that in half of his groups there existed, already at the outset of their interaction, differentiation in participation, while in the remaining half participation rates were initially undifferentiated and only became differentiated through time. Since they were outside the scope of his formulation, Fisek did not apply his model to the initially differentiated groups. (These groups, however, have led to an interest in other processes involved in the formation of expectation states, see next section, and work on cues described in Section

---

\*This basic status distinction, from the standpoint of behavioral differentiation, produces a "performer" "reactor" division. The predicted behavior for A is basically that of the performer who is initiating problem-solving attempts at a high rate, while the predicted behavior for B is basically that of the reactor who is giving A chances to perform, being influenced by A, and reacting to A's performances (Berger, 1950).

VID, below.) Applying his model to the initially undifferentiated groups, Fisek found that it did in fact predict the emergence of power and prestige orders, in particular, the differentiation which develops in member participation, and the differentiation which develops in the pair-wise interchanges between the group actors.

Extending the Theory of Emergence. Building on earlier formulations, Berger and Conner (1974) extended the theory for the emergence of power and prestige orders. The key assumption in this extended formulation is that the differences in performance expectations that develop in status equal task groups are based on differences in the rates at which individuals have their performance outputs (problem-solving attempts) accepted by others. This argument generalizes previous formulations (including the evaluation expectation state models described below) which locate the emergence process in differential evaluations of unit performances. While this factor does lead to differences in the rates at which performance outputs are accepted, other factors may also have this effect, e.g., individuals may differ in interactive skills, or they may differ in the degree to which they are influenced by others. The extended theory specifies conditions under which such initial differences are sufficient to produce inequalities in accepted performances and ultimately differentiated performance expectations.

Berger and Conner also show that the differences in power and prestige behaviors, which are functions of differentiated expectations states, in turn will lead to continuing differences in the rates at which performance outputs are accepted. Thus, the very behaviors which are functions of expectation states also operate to maintain these states, and as a

consequence the group's observable power and prestige order comes to be stable. By this argument major changes in the power and prestige order will not occur unless they are determined by (1) the presence of some exogenous factor, e.g., evaluations of the group product by an external source, or by (2) a change in the initial conditions of group action, e.g., with the passage of time, the group becomes more process-oriented and therefore less task-focussed (see Heinicke and Bales, 1953).

Abstracting the Evaluation Expectation States Process. A key feature of the earliest theories on the emergence of power and prestige orders is the idea that expectations can arise out of the differential evaluations an actor makes of unit performances which he also communicates via reward actions to the other (Berger, 1958). This process, developed in the context of these theories is in fact highly general and can be applied to other kinds of social phenomena. Through a set of successive theoretical statements, expectation state theorists have abstracted this process from the power and prestige theories for study in its own right (Berger and Snell, 1961; Conner, 1965; Berger, Conner, and McKeown, 1969, Fararo, 1973).

There have been two experimental investigations, under high controlled conditions, of the general evaluation expectations theory. In these experiments, subjects worked jointly at the task of deciding the correct solution to a repeated, binary choice decision-making problem. On each trial there existed a perceivable "correct" choice and at the same time

there was sufficient ambiguity to create uncertainty.\* Each subject made a private initial choice, exchanged information about this choice with the other, and then made a private final choice. The subject's communication was controlled by the experimenter and in these experiments they found themselves in almost continual disagreement on the decision-making choices.

To represent the process in this particular situation a model which is a three-state absorbing Markov chain version of the general process has been constructed (see Kemeny and Snell, 1960). It is assumed that subjects start in a state in which there are no defined expectations for self and others. Because they must resolve disagreements with other to complete the task, they differentially evaluate the unit performances of self and other and at each decision trial are either influenced by other (accept other's performance output) or reject the influence of the other (accept their own performance output). As a result, as the process evolves there is the likelihood that the individual forms differentiated expectation states, "High-Low," or "Low-High" (the other two states of this model). Because of the nature of the interaction (almost continual disagreements), it is assumed that once an individual is in one of these differentiated states he remains in the state.

---

\*This is an unusual task condition which is true of these process studies.

In most of the research done in this type of situation, while subjects are led to believe that there is a "correct" and "incorrect" choice, the task alternatives (in the absence of influence attempts) in fact are equally likely to be chosen (see Berger et al., 1977, Chapter III on the nature of the standardized experimental situation which is also referred to as "the basic expectation states situation").

In the first experiment in this situation and using this model Conner (1965) paired two subjects, and each subject's role was so defined that any incorrect decisions he made had few negative consequences for their partners (and so there was less pressure on the subject to accept the influence of the other). On the basis of the observed behavior of his subjects, Conner inferred that one type of differentiated state was formed and that subjects moved to a "High Low" state (Conner, 1965). In the second experiment, Berger, Conner, and McKeown (1969) pitted one subject against a unanimous pair of others, and on the basis of the observed behavior, they inferred that, under these conditions, two types of differentiated states were formed, "High Low" and "Low High." With time an increasing number of subjects move from an undifferentiated state to one of the two differentiated states, and there is a shift in the rates with which subjects accept or reject influence attempts.

Aside from describing the detailed process, this model also can be used to isolate the factors which effect this process. At present we believe (based on these experiments and research in other parts of the program) that the likelihood that individuals in this situation form differentiated expectation states and move to one or other type of state depends primarily on structural factors, and on the properties of the interaction process and group task. Among the structural factors, probably the most important is the individual's role in the group which defines the potential gains and costs involved in his accepting or rejecting influence attempts (see section IVD below on decision-making behavior). As for the features of the interaction process and task, a crucial one is the ease or difficulty, inherent in the task, of making differential evaluations of decision-making

alternatives. This factor is important because it effects the very likelihood that in a particular situation an evaluation expectation process actually will be set in motion.

In the work described so far the evaluations have been integral aspects of the individual's interaction. However, "objective" evaluations from external sources can also play a crucial role in creating and changing expectation states. Foschi (1968; 1971; 1971; 1972a; 1972b; Foschi and Foschi, 1972; 1976) has studied the process of formation of expectation states as a consequence of objective evaluations, i.e., feedback from the experimenter about the subject's choices. Foschi began her work by studying the effects of specific performance evaluations that contradicted already formed expectation states. She found that changes in expectation state corresponded directly to the number and severity of the contradictions between unit-evaluations and expectation state. More recently, Foschi has constructed a Bayesian model of the formation of expectation states which assumes that a frequency distribution of different kinds of unit-evaluations, determines a distribution of corresponding kinds of expectation states, a model of which permits one to specify threshold values for the proportion of consistent evaluations required for the subject to become certain of a given expectation state and for the proportion of inconsistent evaluations required before a change of state will occur.

Within the last few years there has been a limited amount of research in this branch of the program (see Conner, 1977 and Foschi and Foschi, 1979). However, recently Conner (forthcoming) has elaborated further the extended theory on the emergence of power and prestige orders, has applied it to the growing body of research on task cues (see section VID below), and has developed formalized models to investigate some of its most important features.



#### IV. Early Proliferants of Expectation-States Theory

##### A. Status Characteristics and Expectation States\*

The purpose of the earliest proliferant of the expectation-states theory was to explain how and under what circumstances initial status differences determine the distribution of power and prestige in problem-solving groups. The small groups literature of the 1950s had provided numerous examples in which externally created status differences determined the observed power and prestige order: Torrance (1954), for example, had found that air force rank determined influence in both intact and reconstituted air crews even when rank had nothing at all to do with the crew's task; Caudill (1958) had found that even the most active nurses were less active than even the least active residents in hospital ward

---

\*In this section we restrict this review to just the theoretical work on the status characteristics theory. However, it is important to note that there has also developed a body of application and intervention research which is based on the status characteristic theory. For examples of this applied research where the application is to sex as a status characteristic see Lockheed and Hall (1976), Meeker and Weitzel-O'Neill (1977), Lockheed (forthcoming), Ridgeway (1982), and Foschi and Plecash (1983); where the application is to race see Cohen (1972), Cohen and Roper (1972), and Lohman (1972); where the application is to ethnic identities and differences, see Cohen and Sharan (1976), Rosenholtz and Cohen (forthcoming), and Yuchtman-Yaar and Semyonov (1979); where the application is to physical attractiveness as a status characteristic, see Webster and Driskell (1978, 1983); and where the application is to reputed differences in reading ability in classroom situations see Tammivarra (1982) and Rosenholtz (1977).

rounds; Strodtbeck, James, and Hawkins (1958) had found that both sex and occupation determined choice of a foreman, participation rates and influence in mock juries. Similar results had been reported in over a dozen studies. (For a review of these see B. P. Cohen et al., 1972.) The most notable findings of these investigations were, first, how many different kinds of characteristics all produced this effect and, second, that the findings did not depend on whether or not these characteristics were associated with the task of the group. To provide a theoretical explanation of this generalization became the goal of a new branch of the expectation states program referred to as the theory of status characteristics and expectation states.

The initial formulation of this theory (Berger, Cohen, and Zelditch, 1966) incorporated many ideas from the original power-prestige formulation. It made use of the idea of an expectation-state, the idea of an observed power-prestige order, and the assumption that expectation states both determine and are maintained by power-prestige behavior. The emergence of an expectation state, however, involved not differences in unit evaluations of behavior but initial status differentiation. Initial status differentiation was thought of as the possession of distinct states of a diffuse status characteristic (such as male versus female, white versus black, educated versus uneducated, etc.). Associated with these states are invidious social evaluations (in terms of differences in honor, respect, esteem, etc.) and both specific expectations (capacities to perform specified tasks, such as math problems, mechanical tasks, etc.) and general expectations (capacities which are not defined with respect to

specified tasks such as "intelligence").\* There is substantial evidence, for example, that sex, race, and physical attractiveness are particular instances of this kind of status characteristic in the United States at the present time. (See Berger, Rosenholtz, and Zelditch, 1980). The emergence of expectation states in a specific situation that involves initial differences in a diffuse status characteristic depends on three kinds of assumptions. First, the diffuse status characteristic must be activated (or become salient), that is the expectations associated with it must be attributed to specific individuals, which the theory assumes will occur if actors face a collective, valued task, the task involves some specific task characteristic instrumental to success, and the actors are differentiated by the diffuse status characteristic. Second, it is assumed that, once activated, a diffuse status characteristic will be assumed to be relevant to performance on the immediate task confronting the actors unless it is specifically dissociated from it. That is, if nothing precludes status characteristics from being relevant, actors will act as if they are

---

\*The concept of diffuse status characteristic (and for that matter, specific status characteristics, or status-clusters) is an abstract theoretical notion which must be distinguished from specific and concrete status distinctions such as sex, race, etc., which may or may not be status characteristics in some given society or subculture. Evidence from applied research that sex, race, etc. are diffuse status characteristics in any particular social system at any particular moment in history is treated as "instantiation" evidence, i.e., evidence that the theory does in fact apply in a particular society at a particular time. Hence, the results of applied research is of vital importance in the use of this theory. See below, in section VC; also Berger et al. (1977) on the role of instantiation in applying abstract theory.

relevant. They act as if the burden of proof lies in showing that the status characteristics is not relevant to their task, rather than the other way around. Therefore, unless their inapplicability is demonstrated or justified, status characteristics, and status advantages, will as a matter of normal interaction be applied to ever new tasks and ever new situations. The third major assumption is that if status characteristics are relevant, actors will form expectation states for self and other on the immediate task in such a way that they are consistent with the states of the diffuse status characteristics they possess.

This theory predicts how individuals will be ordered in their observed power-prestige behavior by initial status differences. This ordering (as opposed to numerical values) does not depend on whether or not the status characteristic initially is relevant or irrelevant to the task, nor on how much or little status information is given the participants provided they are initially differentiated. (See Berger, Cohen, and Zelditch, 1972.) Two direct tests of these implications have been carried out. Both use a standardized experimental setting similar to that used to test theories in the power-prestige branch of the program. The major difference is in the manipulation of initial status differences. In these studies status differences were manipulated by isolating subjects and informing each that one of the two has the state  $x$  of the diffuse status characteristic while their partner has the state  $y$ , where either  $x > y$  or  $x < y$ . Subjects were so chosen that all of them have the state  $x$ . Hence, the subjects were alike in educational attainment or rank (which were the status characteristics involved in these studies), and therefore, no differences found in the experiment can be attributed to actual differences in ability, dispositions etc., associated with status. Each subject believed that the other subject is higher or lower in status, depending on the value

given to y . Thus, in Berger et al., 1972, all subjects were air force staff sergeants. Half believed their partner was an air force captain, half believed that their partner was an airman 3rd-class. In the first case, the experiment created a low-high status condition; in the second case, the experiment created a high-low status condition.

This experiment found that if the experimenter also informed the subject that the other had a higher or lower Army General Classification Test score than the subject and that these scores were relevant to the task they were jointly performing, then the subject was significantly more likely to defer to the views of a captain than an airman 3rd class. If the experimenter informed the subject that the other had higher or lower AGCT scores but said nothing about the relevance of these scores to the task the effect was somewhat weaker but the order was the same and the differences were still significant. Even if the experimenter said nothing at all about differences in AGCT scores but informed the subject only that his partner was a captain or airman 3rd class, statistically significant differences were obtained. Similar results are reported by Moore (1968), who used educational attainment as a status characteristic. That is, he used subjects from a junior college who believed their partner was either a high-school student or a university student. In half the cases, he also made the status characteristic explicitly relevant to the task, in half he did not. The status characteristic significantly ordered the subjects' power and prestige position in both cases.

This initial formulation of the theory of status characteristics was restricted to the effect of a single status characteristic because it was not clear at the time how to formulate the relation between two or more status characteristics, particularly for the case in which these

characteristics were inconsistently allocated--the classic problem of "status inconsistency." After considerable exploration of this issue, the initial theory was reformulated to take into account multiple as well as single status characteristics and specific as well as diffuse status characteristics (Berger and Fisek, 1974).

This second theoretical formulation, however, was still restricted in scope to just two interactants.\* It was rapidly followed by a further extension to both more actors and more kinds of actors, referents as well as interactants (Berger, Fisek, Norman, and Zelditch, 1977).

These successive reformulations introduced basically four new theoretical ideas. First, the original theory was extended to include

---

\*The concern with interactants, i.e., actors directly interacting with each other to accomplish a collective purpose, leaves out a wide range of other kinds of roles, such as referents (objects of orientation whose characteristics play a role in the meanings given to actions by interactants), noninteracting self-observers (actors reflecting on and interpreting their own behavior as interactants in the task situation), audiences (noninteractants present as the interaction is taking place), and sources of evaluation (noninteractants whose evaluations matter to interactants). Each of these roles is important in expectation states theory. The current version of the status characteristics theory describes the effect of referents on interactants, and in the next section we will describe a theory of sources of evaluation. Describing the effects of audiences on interactants, and the relations of an actor's behavior as an interactant to his behavior as a noninteracting self observer remain tasks for the future.

specific as well as diffuse status characteristics, and in addition, status clusters--combinations of interrelated status characteristics. Second, differences in the strength of a characteristic's effect were given a precise meaning in terms of different paths of relevance between a status characteristic and a task outcome. A status characteristic might be directly relevant, indirectly relevant, or not initially relevant. Through spread of relevance, more paths form as actors process available status information and use it to structure particular situations. Such connections form between elements not only through connections to other status characteristics but also goal-objects (objects with symbolic value as rewards) and referent actors. Third, actors were permitted to move back and forth between interactant and referent roles, a process through which the status structure of a group was seen to gradually evolve in such a way that, if the same task and interaction conditions were preserved so also was the earlier evolution of the structure, each subsequent elaboration being founded on that part of the structure already created. Fourth, it was assumed by these subsequent reformulations that all salient (or activated) status information, whether consistent or inconsistent, is combined in forming aggregated expectation states. The actor processes inconsistent status information in accord with what is called the principle of organized subsets: he first organizes it into consistently evaluated subsets and only then combines these subsets. Furthermore, it is assumed that as the actor organizes information within consistently evaluated subsets there is a diminishing effect in adding each increment of status information. This principle implies that the combined effect of many status elements is not simply the sum of their individual effects. Even more, it implies that if there are, for example, different numbers of status elements in the two inconsistent subsets the small subset will have a disproportionately large effect on the resultant power-prestige order.

Theoretical Research. Theoretical tests of the reformulated versions of the status characteristic theory have been concerned with four major problems. First, what are the conditions under which status information is activated (or becomes salient) for actors in their immediate situation? In general, the research supports the theoretical arguments of the status theory that status characteristics become salient if they are a basis of discrimination between actors or if they are believed to be connected to the group's task (as in the cultural belief, for example, that men are more mechanical than women), Kervin (1975), Webster and Berger (1975), and Webster (1977). Second, what is the effect on the actors' power and prestige of different types of paths of relevance (paths of status expectancy) connecting the status characteristics actors possess to their task? There is research which fully supports the idea that the shorter (and therefore more strongly task-connected) the path of status expectancy the more extreme (higher or lower) is the actor's power and prestige position (Kervin, 1972, Zelditch et al., 1980). However, there also are experiments which provide only partial support for this idea (Moore, 1968, Berger et al., 1972). In addition, there is research which fully supports the idea that the greater the numbers of paths of expectancy (holding constant path strength) linking the actor to the task the higher (or lower) is the actor's power and prestige position, Kervin (1972), Berger, Fisek, and Freese (1976). (For additional research on paths of status expectancies, see Wagner and Berger, 1982.) Third, what evidence exists that particular status characteristics are indeed governed by the burden-of-proof process, i.e., that they generalize to nonrelevant tasks? At present, evidence exists for the operation of the burden-of-proof process for the following diffuse status characteristics: educational attainment, Moore (1963), Zeller and Warneke (1973), Zelditch et al. (1980); military rank, Berger et al. (1972); age, Freese and Cohen (1973); race, Webster and Driskell



(1978); and sex, Pugh and Wahrman (1983). Evidence also exists for the operation of the burden-of-proof process in the case of single specific status characteristics; Kervin (1975), and multiple specific status characteristics, Freese and Cohen (1973), Freese (1974, 1976), and Parcel and Cook (1977). And finally, the fourth major problem addressed in this research has been concerned with the question of how are multiple status characteristics processed by actors? Overall, the results of the existing research support the arguments of the current status theory that the information from all status characteristics, which have become salient, is combined by the actors, and that contradictory information is not "ignored," "simplified," or "balanced," Berger and Fisek (1970), Berger et al. (1970), Tress (1971), Kervin (1972, 1975), Freese (1974, 1976), Zelditch et al. (1980). Some evidence does exist in support of a "simplication" or "balancing" hypothesis in the research of Freese and Cohen (1973). However, a partial replication of this study provides clear support for the combining argument, Webster and Driskell (1978). Of the most recent work on this problem, there is research by Martin et al. (1978), and Hembroff (1982), purporting to show that there are status situations in which both balancing and combining occur, while at the same time there is research by Knottnerus and Greenstein (1981), Pugh and Wahrman (1983), Markovsky et al. (1983), and Wagner and Ford (1983) which provides still further evidence in support of combining. Thus, while we already know much more about behavior in inconsistent status situations than we did even ten years ago, research is still continuing which is aimed at testing and refining our current status theories.\*

---

\* For additional research which involves theoretical extensions and refinements of the status characteristics theory, see Kervin, 1977; Fox and Moore, 1979; Humphreys and Berger, 1981; Skvoretz, 1981, and Skvoretz (forthcoming).

## B. Sources of Self-Other Evaluations

The power-prestige branch of expectation-states theory finds the emergence of expectation states in the process of interaction. The status characteristics branch finds them arising from a diverse set of elements including prior institutionalized beliefs about classes of people. A third way in which expectation-states states arise is, as Cooley argued, through reflections of others' appraisals, particularly the appraisals of "significant" others. Cooley located such significant others primarily in families and peers but there are individuals who have the right to evaluate the performance of others in many kinds of more formal settings as well; employers have the right to evaluate employees, teachers the right to evaluate students. Furthermore, it seems reasonable to suppose that such evaluations affect the expectations for future performance of those being evaluated. But it is also clearly the case that individuals who have the right to evaluate another do not always affect the expectations and behavior of the others. What, then, are the circumstances under which the right to evaluate does affect expectations and behavior? The branch of the expectation states program that addresses these questions is called the theory of sources of self-other evaluations.

Webster (1969), in the initial formulation of source theory, considered the simplest possible situation first--one in which a single evaluator (an individual with the right to evaluate) assesses the performance of two other actors. In Webster's formulation this evaluator is said to be also a source for the actors if his evaluations of their performances do in fact matter for them in the situation, which is the meaning the theory gives to being a "significant" other. Webster's key assumption addresses the question of what effects the likelihood that the evaluator of an actor also

becomes the source for the actor. His main argument is that the higher the expectations an actor holds for the evaluator, the more likely is the evaluator to become a source for the actor. Three basic propositions then constitute the essential ideas of the theory. First, given that the evaluator is a source for the actor, p, the actor's evaluations of his own and other's, o's, performances will be determined by the evaluations made by the source. For example, if the source has evaluated p's performance negatively and o's performance positively, then p will evaluate his own performance negatively and o's performance positively. Second, the expectations that an actor has for self and other will be determined by these unit evaluations. Thus, if p has consistently evaluated his own performances negatively and o's positively, then p will develop low expectations of performance for self relative to o. Finally, the actor's behavior will be a function of his expectation state relative to the other. Hence, if p's expectations are low relative to o, p will defer more frequently to o when they disagree than he would if his expectations were high relative to o. It follows from this formulation that p's power-prestige position relative to o will be highest when he receives positive evaluations from an evaluator for whom he has high expectations and lowest when he receives negative evaluations from an evaluator for whom he has high expectations. Intermediate power and prestige positions result when p receives either positive or negative evaluations from an evaluator for whom he has low expectations.

This initial formulation was tested and supported by the results of an experiment conducted by Webster (1969), and almost immediately was extended to the case in which the actor's expectation states for a source are affected by the status-characteristics possessed by the evaluator (Webster, 1970). Given that an activated status characteristic will affect

the actor's expectations for the evaluator, it follows directly from the assumptions of source theory that a high-status evaluator is more likely to become a source for the actor than a low-status evaluator, even though the two are equated in that they both have the right to evaluate that actor.

One implication of Webster's original theory (particularly significant in the study of organizational processes) is that there is some positive probability of an evaluator becoming a source purely by virtue of his structural position even when an actor's expectations for the evaluator are low. Webster and Sobieszek (1974) tested this implication against the rival hypothesis that an evaluator for whom an actor has low expectations becomes a negative source, i.e., actually leads the actor to expectations opposite in sign to the evaluations made by the source. Their results supported the original implications of the theory, with little evidence from this study supporting the idea of a negative source.

The first attempt at a theory of multiple evaluators was by Sobieszek (1970). In the key assumption of her formulation, which deals with the case of two evaluators becoming sources for the actor and conflicting in their evaluations of his performances, Sobieszek argued that the actor simply ignores this contradictory information when it occurs, making no evaluations of self or other. While the data of Sobieszek's first experiment supported this, a number of alternative arguments, consistent with her findings, could not be ruled out. Sobieszek and Webster (1973) returned to this issue to consider the hypothesis that the actor may use evaluative information from both of two conflicting sources rather than ignore such information; and in an ingenious study they succeeded in providing evidence that the evaluations of conflicting sources are combined rather than ignored. For further research on the combining

of evaluations from conflicting sources see also Webster, Roberts, and Sobieszek (1972).

Webster and Sobieszek (1974) refined and coordinated the results of investigations of source theory up to that date, encompassing multiple sources and diffuse status characteristics and using a combining mechanism (distribution of evaluations among sources) to deal with conflicting sources. Although no new theoretical formulation of source theory has been developed since 1974, it continues to be an active area of research, Crundall and Foddy (1981), and it also continues to be important in the development of new branches of expectation states theory, see Moore (forthcoming).

### C. Distributive Justice and the Status-Value of Rewards

A common feature of status situations is that rewards are allocated to actors on the basis of the different kinds of task or status criteria present in them. In such cases, actors will form not only task and status but also reward expectations for themselves and others and these reward expectations raise questions of obvious theoretical importance: How do reward expectations emerge and how are they related to task and status expectations? How are they related to actual allocations of rewards? What happens if the actual allocation of rewards violates expectations?

The last two of these questions dominate the literature on "equity" or "distributive justice" (see, especially, Adams, 1963; Adams, 1965; Homans, 1961, 1974; Walster, Berschied, and Walster, 1973, 1978), and it is these questions that initially gave rise to a branch of expectation states theory concerned with distributive justice (Berger, Zelditch, Anderson, Cohen, 1968, 1972).

The distributive justice branch of expectation states theory was originally concerned with the justice of actual allocations of rewards and how individuals respond to injustice. But it differed from Adams and Homans in formulating these questions from a status value point of view. That is, it was concerned with the status rather than consummatory or exchange value of objects, hence focussed on the symbolic value of what it called "goal-objects."\* It was, for example, concerned with why small differences in wages and salary could mean so much to some people, with the significance of apparently meaningless objects like corner offices, Bigelow rugs, and the key to the executive washroom, and with the way in which status characteristics like ages, sex, and race--treated as "investments" in Homans (1961, 1974)--played such a large role in defining the value of goal objects as well as how they should be allocated. What turned out in the end to be its most important idea was that the status value of goal objects and expectations for their allocation are determined both by an externally given, collectively validated frame of reference called a referential structure, and the particular conditions in an immediate situation of action, called the "local" system.

A referential structure, in this formulation, consists of: (1) valued social characteristics which are defined as being associated with goal

---

\*The choice of terms was intended to avoid certain implications of the term "reward": (1) reward often connotes positive value but in a status value theory negative as well as positive values are important; (2) reward often connotes psychological notions such as reinforcement which are to be distinguished from its status value aspects, and (3) reward often connotes direct gratification for the person, whereas the emphasis here is the status or "honorific" significance of the goal object.

objects of a particular kind; (2) the valued goal objects that are associated with the different states of the social characteristic; and (3) generalized actors to whom these valued characteristics and goal objects are attributed. An example of such a structure is the belief, where held, that managers, say, in comparison with blue collar workers, possess higher levels of educational attainment, and that levels of educational attainment are associated with salary levels. Note that this structure does not consist in normative claims that because they have such educational attainments managers deserve higher salaries. Referential structures, as conceived in this theory, are in the first instance beliefs about what is, not what ought to be. However, under certain conditions such structures come to define the moral expectations for rewards, as well as their status value, in the immediate situation of action, the local system. This occurs if the referential structure is unitary (each state of the social characteristic in it is associated with a unique level of reward), balanced (goal objects and associated states of status characteristics are consistent in status value), and differentiated (the structure defines the association across both higher and lower levels).

Because such referential structures are shared and socially validated social facts they are capable of defining the meaning of particular local systems. Through the similarity of elements of the local system to various parts of the referential structure, an actor comes to understand the status value of "people like me" and the immediate other with whom he compares himself, as well as the status value of the goal objects that are available. Similarly, the actor comes to understand what "people like me" and the immediate other typically get, therefore, what the actor himself and the other have a right to expect in the particular case. "Justice" and "injustice" are relations between such expectations involving the actor and

the immediate other and the actual allocation of goal objects in the local system. Like other theories of distributive justice, this theory assumes that injustice gives rise to pressures to change the local system.

The status-value theory was originally formulated as an alternative to exchange theories of distributive justice, and this has carried over to tests of the theory. This theory differs in important ways from the theories of Homans, Adams, or Walster et al. Among these is the focus on the status value aspects of distributive justice rather than consummatory or exchange value aspects, and the focus on referential and local comparisons, rather than purely local comparisons.

The differences in these theories in how comparison is conceived makes a particularly large difference in how justice and injustice are conceived. In the original exchange theories, an actor A is seen as comparing the ratio of his inputs to outcomes with the input/outcome ratio of a second actor B. If the ratios are equal, the allocation of outcomes is equitable--outcomes are proportional to inputs. If the ratios are unequal, something about the situation is inequitable and pressure exists either to increase inputs or decrease outcomes if someone is overrewarded or decrease inputs or increase outcomes if someone is underrewarded. However, in terms of the status-value theory one cannot determine whether individual A has been over-, under-, or even justly rewarded from the evidence of B's inputs/outcomes alone. If, for example, the ratio of A's inputs/outcomes is greater than B's, all the following are logically possible: A is justly rewarded, B is underrewarded; A is overrewarded, B is justly rewarded; or A is overrewarded, B is underrewarded. If the ratios are equal, furthermore, it is still logically possible that both are justly rewarded, both are overrewarded, or both are underrewarded. By invoking comparison processes



that relate referential structures to local situations of action, the status value theory enables us to clearly distinguish different states of injustice: (1) the states involving overreward from those involving underreward; (2) the states involving self injustice from those involving other injustice; and most importantly, (3) the states involving collective injustice from those involving individual injustice.

The ideas on collective versus individual injustice were used by Webster and Smith, 1978, in studying the role of justice in the formation of revolutionary coalitions, i.e., combinations of actors whose purpose is to reallocate goal objects. Contrasting predictions based on equity theory with predictions based on status value theory, their findings supported the latter.

Another way in which status theory differed from equity theory was that it predicts the existence of a "reverse process"--a process which is the reverse of that in which the formation of reward expectations results from the possession of valued social characteristics. If actors in a task situation know that goal objects are allocated on the basis of a status characteristic which is, say, some performance characteristic, C, but do not know (or are in doubt of) what state they have of the characteristic they possess, then allocation of goal objects will create expectations for the possession of states of the characteristic consistent with the allocated goal objects. These expectations in turn will determine the actor's behaviors. The reverse process has been investigated by Cook, 1970 and 1975, Parcel and Cook, 1977, and Harrod, 1980. All show that allocating goal objects differentially gives rise to expectations consistent with the goal objects, and these expectations are manifested by their effects on the actor's behavior.

The importance of socially validated referential structures in determining reward expectations in nonexperimental populations, and hence beliefs of what one justly has a right to expect, has been studied by ingenious survey methods developed by Rossi. Jasso and Rossi (1977) and Alves and Rossi (1978) asked survey respondents to evaluate the justice of a series of vignettes relating income levels to characteristics like family status, occupation, and sex. Their results showed a high level of consensus over the standards to be applied in assessing the distribution of earned income. Their most important finding, from the point of view of later advances, was that multiple referential structures have a combined effect in determining reward expectations. This makes the extension of the original theory, which was restricted to the operation of referential structures, one at a time, comparatively straightforward. Out of this work, also, has grown a variant of the status value theory, formulated by Jasso (1978; 1980), that has a number of features in common with it but is founded on a logarithmic "justice evaluation function" that concisely expresses the finding that people react more to under- than to over-reward. (For further research which involves theoretical extensions of the original status value theory, see Donnerworth and Tornblom, 1975, and Tornblom, 1977.)

Status value theory has been concerned with how justice and different types of injustice is given meaning in situations of immediate action. Central to this concern has been the prior question of how reward expectations are formed. The most recent developments have addressed this issue: how are reward expectations formed given multiple referential structures, and how they are related to status and task expectations? This more recent development is described below in section VIC.

#### D. Decision-Making Processes

While this is one of the oldest branches of the expectation states program, it differs in significant ways from other branches. Important theoretical ideas, which are common to the different parts of the program, are either less developed or completely absent. For example, neither the idea of an "expectation states process" nor of expectations states as "situationally stable relational structures" is utilized in the research in this branch. In addition, there are concepts which have been developed in this branch that are not easily related to the theoretical "core" of the program. (See discussion of the "core" of the program, section V below.)

The research in this branch has been conditioned by two general concerns: First, an interest in the effects of variations in structural conditions on behavior in the basic expectation situation, e.g., the effects of different levels of decision-making control in the group; and second, an interest in developing decision-making models to represent the effects of structural variations on the individual's behavior. While interrelated, the results of these research interests, in fact, are quite distinct.

The decision-making model used in this branch was first constructed by Camilleri and Berger (1967). It argued that an actor's choice behavior is a function of the "gains" associated with the given choice in relation to the totality of gains represented by the set of all available choices. The "gain" of a choice is defined as consisting of the positive elements associated with the choice plus the negative elements avoided in the foregone alternative choices (see Homans, 1961; Festinger, 1957). These positive and negative elements are weighted by the probabilities associated with their occurrence. Information that is related to the actor's expectations is used to make estimates of the values of these probabilities.

This is a general model which is applicable to a wide range of decision-making situations (see McMahon and Camilleri, 1975, where it is used to describe member participation behavior in an entirely different kind of situation). The basic structure of this model has remained unchanged since its initial formulation, although it has undergone a series of modifications in order to fit new experimental results (see Balkwell, 1969, 1976, Camilleri and Conner, 1976, Shelley, 1972). Most recently, Lindenberg (1981) has presented a general "discrimination model," which he argues is "deeper" than the original decision-making model in that it can specify the conditions under which the original model holds.\*

On the substantive level, the research in this branch has been concerned with the effects of variations in structural conditions on behavior in the basic expectation situation: the effects of variations in decision-making control (see Camilleri and Berger, 1967; Balkwell, 1976), the effects of variations in group size (see Camilleri and Conner, 1976), and the effects of variations in rewards that are contingent on individual performance (see Shelley, 1972). Clearly the most basic result that has emerged from this research is the finding that there exists in inverse relation between an individual's level of control over the group's decision and the likelihood that he is influenced by his partner on that decision.

---

\*The Lindenberg model was first developed by Siegel and Goldstein (1959), and Siegel et al. (1964), and subsequently was theoretically elaborated by Lynne Roberts Ofshe as reported in L. Ofshe (1967). Her first tests of her model are reported in L. Ofshe (1968), and further tests and extensions are reported in L. Ofshe and R. Ofshe (1970). The current Lindenberg "general discrimination model" in turn represents a further elaboration of the Roberts-Siegel model.

The individual with complete control over the group's decision, i.e., where he alone makes that final decision for the group, is more influenced than the individual who shares control with his partner, and he in turn is more influenced than the individual who has no control over the group's final decision, i.e., where his role is that of an "advisor." This "control-influenceability" relation holds for two- and three-person groups, Camilleri and Conner (1976), and it holds for individuals in different self-other states, Camilleri and Berger (1967). What is still to be done is to determine, in a fully general way, the conditions under which this inverse relation does or does not hold for different group contexts.

#### E. Authority and Expectation States

An experiment by Evan and Zelditch (1961) was concerned with the erosion of authority in professional organization, one in which competence is the justification of authority, as expectation states of subordinates change from relatively "high" to "low." This experiment found that authority attributed to positions in the structure worked like status characteristics, creating initial expectations of performance capacity. Incongruence between expectation states and authority of position did not affect the legitimacy of authority of position, but it did modestly decrease levels of compliance with direct commands about how to perform the task of the organization. However, the effect of expectation states on compliance was less than one would expect to find if only expectation states determined observed power-prestige behavior. This suggests that expectation states and authority of position combine to produce the observed level of compliance. Incongruence between expectation state and authority of position had no effect on compliance with purely administrative commands

or on rates of performance. The latter may have been due to the power, rather than legitimate authority, of the position (which could, of course, affect hiring and firing).

Berger and Zelditch (1962) modelled this process as an expectation-states process. Modelling the rate of change in expectation states by which incongruence between expectation state and authority is produced led to the conclusion that the extent of formalization of the authority structure (specifically, the scope of the rules) is inversely correlated with the rate of change in expectation states (Zelditch, 1972). The more rules there are, the less likely incongruence is to arise in the first place.

However, no subsequent research has (to date) appeared on this model. It requires a quite different experimental setting, and work on reworking the setting was unsatisfactory. The development of the program was therefore arrested without it ever getting off the ground.

#### An Overview of the Growth of the Program

In sections III and IV we have described the proliferation of six branches of expectation-states theory, the original seed of which was a theory to explain in expectation-states terms the differentiation in power and prestige in initially undifferentiated problem-solving groups.

The metaphor of a "tree" should not be stretched too far, but it does give some idea of the more complex concept of "growth" required to describe a theoretical research program. One meaning of "growth" is how rapidly and how far any one branch of a program has grown. But another has to do with how many different kinds of branches have emerged.

Perhaps the limits of the metaphor are best seen when one tries to say what the "trunk" of the tree is. It is hard to stick to the idea that the

original branch is the trunk of the tree, because looking at the tree as a whole it is, after a time, merely one among many branches. What more nearly resembles the trunk is not itself palpable at all: There is obviously, nevertheless, a "core" of concepts, propositions, methods and directives that relates the diverse branches to each other and is common to them.

It is this core, indeed, which underlies the proliferation of the program. That is, it is these core elements which are abstracted from the earlier branches and extended to new domains. The earliest proliferant of expectation-states theory, status-characteristics theory, conceived of the inequalities in power and prestige in groups which were initially differentiated in terms of status as involving differentiated expectation states in a manner similar to that in initially undifferentiated groups. The difference was in the operation of an external status characteristic which in differentiated groups is involved in the formation of expectation states at the outset of interaction. Hence, the problems to be solved were to formulate the nature of such external status characteristics, their role in the formation of expectation states, and the conditions under which they were "activated." Thus, at the same time that researchers in the original power-prestige branch of the program were formulating more abstractly an "evaluation-expectation" process and making this process a focus of research in its own right, a new and separate branch was emerging that was concerned with social situations in which the formation of expectation states involved externally given status characteristics. Once emerged, both branches have continued to grow more or less in parallel.

Not that concepts from the original branch were sole factors in the proliferations which have occurred in the program. For once it had emerged,

concepts unique to the status characteristics theory have also played a role in some subsequent branches, like the theory of sources of self-evaluation. In formulating the nature of the source process, core features of the evaluation-expectation process were employed. In formulating the effects of status differences on the source process the concept of a diffuse status characteristic was combined with the assumptions of source theory (see Webster, 1970).

Nor is the relation between two branches of the program always one-way, as it has been in the case of the influence of the power and prestige branch on status characteristics theory. In formulating the concept of a referential structure, which is conceived as creating the meaning of and moral expectancies for social rewards, the justice branch borrowed the concept of a status characteristic. But out of the research in the justice branch was developed the concept of a "path of relevance" that, in turn, has fed back into the subsequent growth of the status characteristics branch, materially affecting the generalization of that theory to multi-characteristic status situations.

Finally, it is evident that not all branches develop either at the same rate or in the same way. The authority-expectation branch has not evolved since its initial formulation in part because it did not solve the problem of how to create an appropriate and useful experimental setting for the process with which it was concerned. Among those branches that have continued to develop after they initially emerged, the predominant pattern of development has been the progressive extension of the formulation to more and more complex social situations (status characteristics theory, source theory). While the original power and prestige branch shows this same progressive development, it also exhibits something more--namely, the



abstracting and formalizing of a theory of an evaluation-expectation process for study in its own right. And in the cases of the source and status characteristics theories, applied research has played a central role in spurring and shaping development that has not yet been described (see section VC below) but has been of crucial importance.

Despite the ways in which empirical reality blurs the metaphor, the "core" of the program is both the key to its proliferation and what holds it all together. Each of the six branches so far described deals with a different phenomenon. In order to address different phenomena, each has developed some specific concepts and assumptions not found in other branches of the program. But each nevertheless has certain features common to all the branches which holds the diverse theories of the program together. Before describing some of the more recent developments in expectation-states theory we pause, in the next section, to describe some of the central features of this "core."

#### V. Core Elements of Expectation-States Program

The core of this theoretical research program consists of three kinds of elements: First, common substantive terms and assumptions that are involved in its theories, such as conceptions of an expectation state and an expectation-states process. Second, common metatheoretical ideas and directives that guide the construction of its theories, such as ideas on abstract and general theories of social processes, or ideas on the relation of theoretical and applied research to each other and to the growth of theory. Third, common methods of observation and inference, such as the standardized experimental settings used in the program's theoretical research and the open-interaction settings used in its applied research.

We limit ourselves, for reasons of space, to three of the most important of these elements. For further discussion of core elements see Berger et al., 1974; Wagner, 1978; and Fararo, 1978.

A. Expectation-States Processes

Expectation states theories conceptualize social phenomena in process terms. Not every conceivable social process, however, is an expectation states process. Expectation-state processes are social processes of a particular kind, a kind that we can describe as "state organizing processes." In saying that an expectation states process is a "state organizing process" we seek to characterize certain features of the strategy involved in constructing such theories.

The first of these is that the unit of analysis of such theories is the "situation." This unit of analysis is at once broader and narrower than such conventional "levels" as small group, organization, or society. It is broader in that a "situation" consists in abstract, general features of any kind of concrete system. Elements such as a "task," a "collective decision," a "status characteristic," or a "power and prestige order" might be found in families, work groups, complex organizations, or small problem-solving laboratory groups. It is narrower in that it is not the whole of a concrete social structure that is characterized by these elements. That is, no concrete system is in the same social situation all of the time. The analytic elements that make up the situation are present some of the time but absent at other times.

Because of its focus on analytic elements such as "tasks," "collective decisions," and more generally on abstractly defined situations within which

a social process occurs, expectation states theories cut across the "macro-micro" distinction that is so common in sociological theory. This does not mean that size, distance, complexity, and other properties of larger-scale social systems make no difference to how expectation state processes work. Even the difference between two and three actors makes a profound difference to an expectation states process (cf. Fisek, 1974). But in expectation states theory "scale" is treated as an analytic property like "task," "collective decision," et al., not as a fundamental difference in "level" of theory.

An important feature of the idea of a state organizing process is that it will occur in a situation if certain conditions hold true, which is why the relevant social process is not something that is just "always there" and why its behavioral manifestations are not always observable. When the conditions that lead to a status process are not present in a particular family, say, the differentiated power and prestige order generated by the status process may not be manifested, and the relations between the family members may be, at that time, in fact undifferentiated. More generally, a state organizing process is a social process which comes into existence when specific social conditions exist in a particular setting whether the setting be a group, an organizational context, or an interpersonal encounter. For a status process, Berger, Cohen, and Zelditch (1966), see these conditions as particular task and status conditions: For a control process, Talley and Berger (1983) see these as conditions that describe a particular state of disruption in normal interaction: For an interpersonal attribution process, Johnston (1977, 1978) sees these as conditions that characterize a particular type of breakdown in interpersonal communication. But a social process conceived as a "state-organizing process" not only

comes into existence (is "activated") given the appropriate initial conditions: It also "evolves" (develops a structure which is shaped by the specific features of the immediate situation) and, when the initial conditions are altered, e.g., the group is no longer task-oriented, or the actors have dealt with the normative disruption in their social interaction, the process terminates (is "deactivated"). From this perspective, state organizing processes are latent processes that have the constant potentiality of becoming activated given the appropriate conditions in a social situation. ✓

An important feature of a state organizing process is that such a process creates expectation states. Here, we are concerned with the role of such structures in state-organizing social processes. (Shortly we shall examine, in more detail, the nature of this concept as it appears in different expectation states theories.) Expectation states are self-other relational structures which stably organize behavior among interactants. These states arise out of the conditions and behaviors that activate the process, and they are created as interactants confront specific situational demands. Given an activated status process, for example, self-other expectation states are formed and power and prestige behaviors occur, as functions of these states, that are responses to the task and status conditions that generated the process initially. More generally, they are structures that are formed as interactants respond to different types of demands whether these be the motivation to solve a group task, the pressure to deal with a normative disruption, or, as in the case of a justice process, the pressure to engage in comparative evaluations of actors' contributions and rewards.

While expectation states, in this view, are "stable relational structures," their stability is relative to the specific features of the interactive situation. First, their stability is contingent on the presence of the conditions that generate the social process. If these conditions change or the social process itself is completed, these relational structures become deactivated like the social process of which they are part. Second, the actor's state relations with any given other can change dramatically, depending upon the particular process in which they are interacting, e.g., a status process or a control process. Finally, within a given process, such as the status process, the same actor can hold any one of an almost infinite number of expectation positions in relation to others. That is, in going from one situation to a second, he can undergo very large or small changes in his expectation advantage depending upon the status characteristics of the particular others with whom he interacts (see Berger et al., 1977). Thus, in this conception the stability of these relational structures, from any given actor's standpoint, depends on whether or not a state-organizing process is activated at a particular time, on the nature of the particular process that is activated, and on the social characteristics of the particular others with whom he is interacting.

The conception of expectation states processes as state organizing processes leads to specific theoretical questions the answers to which constitute the expectation states theory of a particular social phenomenon:

(1) That such processes are conceived of as activated and deactivated leads first of all to the question: Under what conditions is the process activated? The answer to this question requires conceptualizing the situational conditions involved in generating a particular process. The

general idea is that particular social conditions are involved in each state organizing process--for example, status, justice, or control, and that the theoretical task is to formulate in abstract and analytic terms these conditions.

(2) That such processes are conceived of as governed by relatively enduring states leads to the question of: How are the elements that constitute such states processed and organized in the operant situation?

The answer to this question involves formulating theoretical assumptions which describe how behavioral or informational inputs are processed by the interactants. In Fisek's power and prestige model (1974), for example, these are assumptions which describe how expectation relations and rankings are formed out of behavioral exchanges. In the status theories these are assumptions which describe how status elements become salient, become relevant to the situation, and become related to each other. In general, the task within a specific theory is to formulate theoretical assumptions and principles which describe how a particular process evolves, and how situationally stable states are formed.

(3) Finally this perspective leads to the question: How is a state, once formed, transformed into state-governed behaviors in the particular situation? In the power-prestige and status theories this involves assumptions which describe how an interactant's expectation advantage over another is translated into his observed power-prestige behavior vis a vis the other. In general the task is to formulate, within specific theories, assumptions (such as the "basic expectation states" assumption) which relate the expectation structures involved in the particular process to the observable behaviors of that process.

## B. The Nature of Expectation States

Expectation States as Theoretical Constructs. The concept of an "expectation state," which is involved in all the branches of the program is central to the idea of an expectation states process. This concept has evolved a good deal since the time it was first introduced (in Berger, 1958) because it has been "stretched" to fit the needs of various theoretical formulations. In the third section below we will look at some of the variations in the concept. In this section and the next we describe features that have been common to the theories in the program.

Expectation states are not observable states. The most important feature of an expectation state is that it is a theoretical construct (see Berger et al., 1962). The role such constructs play in theories is to enable the theorist to generalize and integrate, through underlying abstract concepts, other concepts that describe otherwise disparate features of a process. This mode of theorizing about expectation states is almost as old as the program itself and was first rigorously developed in the Berger and Snell model, 1961.

While they are not directly measured, expectation states are inferred. Inferences about them are made on the basis of (1) observable antecedent conditions (for example, behavioral or informational inputs), (2) observable consequences (for example, inequalities in behavior), and (3) theoretical specification of the relations between these two kinds of observables and unobservable expectation states. The testability of a theory employing theoretical constructs rests on theoretical specification of the links between them and antecedent and consequent observables. Three of the most

important ideas common to the theories of the program arise out of the way these theories specify these links. Here we simply summarize these most general theoretical "themes" which are developed (in varying forms) in specific theoretical formulations.

The first of these is the general idea that expectation states drive behavior or that behavior is a function of expectation states. This is probably the most common idea in the program, namely, that differences in underlying states and structures lead to differences in behavioral consequences. In general the consequences that are theoretically linked to expectation states are the interactant's observable social behaviors, as for example, his power and prestige behaviors.\*

Second, under specifiable conditions, expectation states themselves are conceived to be functions of behavioral and/or informational inputs. That is, behavioral, and informational inputs to the actor drive expectation states, just as expectation states drive behavior. This idea, conjoined with the first, argues that there exist conditions that involve a "basic duality" between behavior and expectation states, i.e., conditions in which behavior determines expectation states and expectation states, in turn, determine behavior. This duality is perhaps most explicitly specified in the power and prestige theories of Fisek (1968, 1974), and Berger and

---

\*Recently Barchas and her colleagues have also begun to investigate the interactant's physiological responses as additional observable consequences of expectation states (see Barchas, 1975; Harris, 1980, 1981).



Conner (1974), and in the models developed by Conner (1965), Berger et al. (1969), Moore (1969), and Fararo (1973).\*

Third, if expectation states determine behavior and behavior determines expectation states, then it is reasonable to assume that there exist conditions in which expectation states and their behavioral consequences, once evolved, are maintained. While again these ideas on the maintenance of expectations and the stability of its behavioral consequences are most explicitly specified in the theories and models in the power and prestige branch, they are also tacitly assumed in most other branches of the program.

#### Expectation States, Interactants, and Noninteracting Observers.

Because expectation states are conceptualized as unobservable states and are not directly measured, the methods by which expectation state theorists identify or assess them differ markedly from more conventional attempts to find them in interviews or self reports. In fact, we believe that interactants, while engaged in interaction, typically are not aware of nor do they consciously reflect on how expectation states are formed, what states are formed, or how these states are translated into behavior. The processes, for example, by which a mosaic of initially unconnected status

---

\*This duality does not imply that the relations between behavior and expectation states are necessarily symmetrical. In the Markov chain model constructed by Berger et al. (1969), for example, we find that while the behavior of the interactant at time  $n$  is a probabilistic function of his expectation state at time  $n$ , his expectation state at time  $n$  is a probabilistic function of both his behavior and his expectation state at time  $n - 1$ .

elements produces a resultant status order is, in all likelihood, largely outside the individual's awareness.

In the perspective of expectation states theory, the interactant is capable of and engages in information processing activities which can be quite complex. The assumptions of different theories describe these activities. In the status characteristic theories (Berger, Cohen, and Zelditch, 1966; Berger, Fisek, Norman, and Zelditch, 1977), for example, there are "activation" and "salience" assumptions which describe how items of information (beliefs about self and other, beliefs associated with status characteristics, etc.) become inputs to the status process, while in Fisek's model (1974), Berger, Conner, and McKeown model (1969), and Berger and Conner's theory (1974), there are assumptions which describe how different types of behaviors (performance outputs, disagreements, exercised influence, etc.) become inputs to an expectation formation process. Also in the current version of the status theory there are information processing principles that describe how the interactant operates on different types of complex status structures (of almost an infinite variety) in forming aggregated expectation states. In short, we believe that the actor's behavior, while the actor is in the role of an interactant, is governed by complex information processing principles, which are described by the assumptions in expectation state theories. At the same time we do not think of these as being consciously guided processes, or processes that the actor monitors, or processes that the actor may even be aware of.

But whatever, in fact, be the nature of and role of "awareness" in these matters, the important point is that current expectation state theories in general make no assumptions, which are formal parts of these theories, that relate the formation of the interactant's expectation states to his conscious processes. Specifically, they make no assumptions about

the relation between the way an actor forms expectation states and engages in behavior and the way in which he reflects about his expectation states and his behaviors.\*

In expectation states research a sharp distinction is made between the interactant, the actor who is directly engaged in the interacting process, and the noninteracting observer of that interaction, the actor, who is reflecting on what has taken place in it, interpreting and making sense of it.\*\* Post-session interviews, for example, are conceived by expectation states theorists to put the respondent in the role of a noninteracting observer of his own behavior. The two roles function in quite different social situations, involving different tasks, different inputs, and different processes governing their behavior. Expectation states, inputs to these states, and behavioral functions of these states in current theories, are conceptualized from the standpoint of the interactant and not from the standpoint of the noninteracting observer interpreting his own behavior after the fact. As a consequence, productions of the actor as a noninteracting observer (such as his post-session interview) cannot, from a theoretical point of view, be used to identify his expectation state as

---

\* While the actor's self-interpretative and self-reflective statements are not used to measure his expectation state for the reasons which we describe here, such information does have heuristic value and often is so used by expectation state researchers in developing their theoretical principles about expectation states and processes.

\*\* One of the original sources of this distinction is the very common observation among expectation state researchers that subject's post experimental reports on their behavior (for example, on how many "S-responses" they made) may bear very little relation to their actual behavior as it occurred in the standardized experimental situation. For similar findings in the Asch situation, see Asch, 1955. As a consequence, we have long expressed the view, in lectures and discussions, that different principles are required to understand the individual's interpretation of his experimental experiences, as a reflecting observer in a post-experimental interview, than are required to explain his behavior as an actor in the experimental situation.

interactant.\* By making such an identification the researcher risks the errors that are involved in making theoretically unwarranted inferences. In addition, he obscures an important theoretical problem in all interactionist theory, namely, that of relating the cognitive productions of individuals in their role of noninteracting observers to their behaviors and states in their role of interactants.

Variable Features of the Concept of an Expectation State. Up to this point we have considered some of the common features of the expectation states concept. What about the variations in this concept as it appears in different parts of the program? These variations, which we shall briefly examine, are both of a substantive and formal nature.

Because different expectation state theories are concerned with different phenomena, the specific theoretical elements that are involved

---

\*In fact, it is of considerable importance to distinguish findings that bear on the behavior of noninteracting observers from those that bear on interactants. In a study by Fisek and Ofshe (1970), for example, they found that there was consensus in sociometric rankings among individuals who were members of a group in which there was behavioral differentiation throughout their task session, while there was no such consensus among individuals who were members of a group in which differentiation emerged during the session. This is a finding about noninteractant observers reporting on their own behaviors. Presumably the more uniform and consistent the behavior they are reporting on, the greater agreement in their observations. Identifying this properly as a finding about noninteractant observers (as opposed to interactants) helps us better to understand the relations between the social constructions of individuals as observers and their behaviors and states as interactants.

in the concept of an expectation state also differ in these theories. In the power and prestige theories the concept is formulated in terms of the task characteristics instrumental to the group's task; while in the status characteristics theory its formulation makes use of a wide range of status elements including diffuse and specific status characteristics, and status clusters. In the status-value theory it is formulated in terms of reward expectations based on the features of an activated referential structure and the properties of a local system. In one of the newer branches of the program (see discussion of Johnston's research below) expectation states are formulated in terms of personality characteristics; and in a second of these newer branches, the concept of expectation states also involves moral characteristics as elements (see discussion of Driskell's research below). These differences reflect the different substantive concerns of these theories and the different concepts they have developed to address these concerns.

The exact formulation of the expectation states concept in the different theories also reflects the different formal structures within which these theories are interpreted. At one extreme we find the concept developed as part of a theory that has little in the way of a formal apparatus as is the case in the evaluation and social control theory of Talley and Berger (1983). At the other extreme, it appears in theories that have well developed formal structures: Self-other expectation states have been interpreted as the states of finite Markov chains (Berger and Snell, 1961; Berger, Conner, McKeown, 1969; Fararo, 1973); patterns or arrangements of expectation relations also have been treated as

mathematical elements in a still different kind of Markovian model (Fisek, 1974); and self-other states have also been treated as components of a Bayesian decision-making model (Foschi and Foschi, 1976, 1979). While the expectation state concepts within these theories share common conceptual features and play similar roles, the differences in formal structure affect the kinds of theoretical distinctions that can be made and the theoretical subtleties that can be captured by these concepts. This can be seen more easily, perhaps, by briefly examining some of the formal elements that are part of the conceptualization of expectation states in the latest version of the status characteristics theory.

Within this latest status theory, the notion of an expectancy bond (a "relevance relation") and a path of status expectancy (a "path of relevance") are explicitly defined. These paths may be positive or negative to distinguish expectancies for goal success from those of goal failure. These paths also differ in terms of their length and their degree of task relevance. This enables us to distinguish different kinds of expectancies in terms of the goal-attainment strength that they each embody. The assumptions of the theory describe how a structure of status expectancies emerges in a specific situation where each expectancy is "weighted" by its associated degree of task relevance. An expectation state (for self or others) in this formulation is a particular type of aggregation of these weighted expectancies. This aggregation is generated from the structure of weighted expectancies in accord with the information processing principles specified in the theory, i.e., the principle of "organized subsets." The mathematical structure of this theory enables us to describe

expectation states formed in very simple status structures (those containing few expectancies) or very complex status structures (those containing many expectancies), consistent status structures (where all the actors' expectancies are associated with the same goal state) or inconsistent status structures (where some associate him with one goal state and others to an oppositely evaluated goal state), and in homogeneous status structures (where expectancies are of the same kind with equal relevance to the goal) or heterogeneous status structures (where they are of different kinds with different goal relevancies). Thus, as this example illustrates, the nature of the expectation states concept (its meaning) and its power (what can be done with it) is shaped by the formal language of the theory.

#### C. The Relation Between Theory, Tests, and Applications

"Expectation-states theory" as a program is built up out of three kinds of components: First, it consists in abstract, general theories, i.e., theories the terms of which are such ideal generalizations as "diffuse status characteristics," "specific status characteristics," "unitary, collective tasks," "action opportunities," "performance outputs," etc. Second, it consists of a body of controlled, experimental tests of these theories, in situations that realize as far as it is technically possible the abstract conditions regarded as necessary to test the theory. Third, it consists of a body of applied research, research designed to discover and identify different specific social characteristics in concrete, particular settings and to intervene to alter their more undesirable effects. (For reviews of this applied research, see Berger et al., 1980; E. G. Cohen, 1982).

The relations among these components are conditioned by three metatheoretical directives common to all the branches of the program. The first follows directly from the logic of the relation between theories and their application: Theories are general, they refer to abstract elements such as "diffuse" or "specific status characteristics" in the status characteristics theory. Applications of the status theory involve particular, concrete elements such as race, sex, or ethnicity. To apply a theory such as the status characteristics theory, therefore, requires statements asserting that such concrete entities as race, sex, or ethnicity are instances of the abstract elements that theory defines as a status characteristic. This means that to apply status characteristics theory requires evidence that race or sex or ethnicity are differentially valued characteristics the states of which are associated with specific and general expectations. Such "instantiating" statements can be true or false: Race or sex or ethnicity might be status characteristics in Boston but not in Mexico City in 1982 but not in 2082. But if an instantiation is false, one does not say that the theory is false, one says that the theory does not apply to this instance. From this it follows that instantiatational assertions are not statements in the theory, they are part of a distinct body of applied knowledge. Hence, applied research is necessary in order to relate the abstract theory to the different concrete realities. It is by virtue of such research that one accounts for status organizing effects for particular cases and in particular situations, and describes how these effects can be modified. In this sense, abstract theory is grounded by applications.



But it is also true that applied research, and actual applications and interventions, contribute in crucial ways to the growth and development of theory. They do this in part by suggesting new problems: Both their successes and failures contribute to growth, the former because interventions sometimes succeed in ways the theory does not explain, the latter because applications sometimes fail in ways that cannot be explained by challenging instantiatinal assertions or questioning the scope conditions of the application/intervention. Thus, in some ways E. G. Cohen's application of status characteristics theory to biracial interaction is an almost textbook case in which, first, a theory was constructed (Berger et al., 1966), then it was subjected to theoretical tests (Moore, 1968; Berger et al., 1972), then it was applied to biracial work-groups (E. G. Cohen, 1971). E. G. Cohen and Roper (1972) subsequently took this theory into account in developing a successful intervention to reduce black/white differences in observed power-prestige. But it is important to note that they ran ahead of the pace set by development of the theory and ended by driving the theory forward. Their method was to introduce contradictory performance information into racially defined situations. This raised questions about multicharacteristic status situations that were outside the scope of the initial status characteristics formulation, posing a "theoretical problem" that, combined with other pressures (including the purely theoretical one of generalizing the theory), led to the extension of the initial status characteristics theory to more complex multicharacteristic, status situations (see Berger and Fisek, 1974). In general, the issues arising from application and intervention research generate theoretical problems whose solutions actually shape the specific forms of theory development in the program. Thus, the first directive governing the relations among theory, theoretical research and applied

research in the expectation states program is that: theory is grounded in applications and applications shape theory.

The second directive follows from the nature of theoretical research as expectation states theory conceives it. Theoretical research, in contrast to applied research, is research with a generalizing strategy (see Berger, Zelditch, and Anderson, 1972). Its purpose is to test, refine, and extend a theory; its method is to isolate and abstract theoretically relevant aspects of concrete, natural settings and study them under highly controlled conditions. Hence, it mirrors theoretical processes, not natural settings. In fact, it does not describe any natural setting at all. (This is as true of nonexperimental as experimental theoretical research.) The whole strategy with which one approaches such research is quite different in basic orientation than is, for example, applied research. The strategy of generalizing research is governed by the primary objective of providing relevant information about theoretical processes. In this context "relevant information" is information which can be used to test, refine, and extend theoretical formulations. Research settings are chosen because they are instrumental to the theorist's primary objective, i.e., they can be manipulated, they can be controlled, effects within them can be magnified (if necessary), and they can be measured. Applied research, on the other hand, chooses settings because of their social importance, or for other reasons in which the setting itself is of paramount importance. Theoretical research will therefore often use settings and techniques that appear special and contrived and irrelevant from the perspective of applied research, and the question that will often arise is: how do you get from such artificial and concretely very different settings to applications and interventions. The directive that the expectation states program derives

from its "generalizing" orientation is that: it is theoretical research that one uses to test, refine, and extend theory; and it is theory that one applies to natural settings.

From the nature of applied research and its differences from theory and theoretical research, one derives the triadic structure of the components of a theoretical research program that, in lectures and more informal occasions (if not actually in print) we have colloquially referred to as the "holy triangle." Differences in the strategy of theoretical and applied research give them somewhat different roles to play in the growth and development of theory, but the traditional conception that a theory is assessed primarily (even exclusively) with reference to criteria of theoretical research or that intrinsic to the objectives of abstract theory (generality, testability, confirmation status, relative superiority over other theories) is incomplete. A theory may be general, testable, well-confirmed, superior to alternative theories but still forgotten because it applies to only very special social situations, or it describes a process that is so sensitive to competing processes or boundary conditions that it is difficult to detect in concrete settings, or the theory offers no usable or effective way of manipulating the process it describes to accomplish desired interventions. All these criteria arise from applications and interventions, not theoretical research. Our third directive accepts the fact that the assessment of theory in a research program is a more complex problem than is traditionally recognized. It argues that: theory assessment rests on multiple kinds of criteria including those involved in applications and interventions, as well as those involved in theoretical research and in the objectives of developing abstract theory.

## VI. Current Directions in the Program

In this section we return to the description of the proliferation of expectation-states theory, focussing this time on more recent developments. Among the newer domains to which the concepts, assumptions, and methods of expectation states theory have been extended, are: First, other bases for forming expectation states. These include (1) "status cues," items of information or behavior from which individuals form underlying status or task expectations (Berger, Ridgeway, Rosenholtz, and Webster, forthcoming); (2) the expectations of others who interact with self, what Moore (1983), and Moore (forthcoming) calls "second order" expectations; (3) "standards" that affect the rate at which unit-evaluations give rise to expectation states (Foschi, 1981); and (4) information from referential structures from which individuals form reward expectations (Berger, Fisek, Norman, and Wagner, 1983). Second, other kinds valued characteristics from which individuals form expectation states. These include: (1) personality characteristics (Johnston, 1977, 1978); (2) moral characteristics (Driskell, 1982; Webster, 1982); and third, other kinds of social processes. Here, Talley and Berger (1983) have begun to investigate the process of interpersonal social control as a state organizing process. And fourth, how status processes relate to other processes. Here, Berger and Webster (1979), Shelley (1979), Wattendorf (1979), and Webster (1980) have begun to study how sentiment processes relate to status processes.

Because there are a fairly large number of new domains to which expectation states theory has been extended, we have selected four for brief description here. These were selected because they illustrate very different stages of development: The theory of personality characteristics,

described in section (a) of this section, is at a fairly advanced stage of development. This branch exhibits an explicit theory, well-worked out methods of observation and inference, and several tests on the basis of which elaboration has begun. The theory of moral characteristics, described in section (b) is less well advanced. This branch exhibits an explicit theory, and has worked out a method of observation and inference, but empirical investigation is only just beginning. The theory of reward expectations, described in section (c) is even less advanced. This branch has an explicit theory, it is capable of being tested in the standardized experimental setting used in most expectation states theory work, but it does not as yet have a method of observing reward allocation aspects of the observable processes. The least advanced branch is the study of status and task cues: This branch, described in section (d) is in a stage of theory construction. No theory has been fully formulated, but nevertheless, there are several promising lines of work opened up by the problem that suggest it is a fruitful line of development.

A. Personality Characteristics as Expectation States

A common problem in applied sociology is the "rigidity" of the complementary interaction of husbands wives, fathers and sons, sisters and brothers. Although it is common to conceive of this rigidity as explained by certain kinds of "personality traits," this explanation has difficulty explaining inconsistency across situations of the "traits" employed to accomplish the explanation. "Trait" psychologies typically assume them to grow out of socialization experiences, to become enduring features of the person--real traits-- and hence also to be "deep" and "consistent," i.e.,

as operating independent of the situation, or the specific other, or the conditions of the interaction in which the individual is involved. The particular situation, the nature of the relation in which the person is located, the specific conditions of interaction are in this kind of explanation neglected as significant factors and the explanation is located entirely in the "personality" of the individual. The rigidity of some family interactions, particularly in pathological settings, and the difficulty in changing such interactions in family therapy is well-documented (Sager and Kaplan, 1972; Martin, 1976). But the rigidity of the personalities in such families is often found to be "flexible" in other kinds of situations: The passive, ineffectual father who is dominated by a controlling wife is dominant, aggressive at work; the excessively good child is provocative and hostile in school. Such cross-situational inconsistency of behavior is difficult to explain purely in terms of personality traits and intrapsychic dynamics (Mischel, 1968).

Johnston (1977; 1978) has formulated an alternative explanation in which personal attributes are conceived of as elements in an expectation states process. Traits such as shyness, outgoingness, hostility, timidity, warmth, permissiveness, are treated as outcomes of recurrent interactions among the same individuals, who become the basis for their activation. Like status characteristics, such personal attributes are thought of as socially constructed beliefs of what people will be like in future situations. Like them, personal attributes can be specific (sexuality) or diffuse (morality). In fact, they differ from status characteristics only in their terms of reference: they refer to individuals (rather than classes of individuals) and are activated by individuals.

This interpretation accounts for the stability of interpersonal behavior patterns between the same individuals in the same way that it accounts for stability of power-prestige orders once they have emerged, essentially as the outcome of an expectation states process. It accounts for inconsistency of the individual's interpersonal behavior across situations in terms of conditions of activation: Behavioral "traits" are not part of the individual in any "deep" sense, rather they are reactivated by interacting with the same individuals under the same recurring conditions. Alter these conditions and different behavioral traits emerge. In Johnston's view, a second important condition required to activate behavioral "traits" is the ambiguity of the situation, i.e., the absence of veridical, external sources of definition of the situation. This increases the likelihood that individuals use internal sources of definition, i.e., prior beliefs about the person.

Testing such arguments under controlled conditions required a new experimental setting, details of which can be found in Johnston, 1978. The essential feature of the setting created by Johnston is that subjects communicate verbally about a "design" they are jointly creating but are separated by partitions so that they cannot see each other. Hence, they must fall back completely on what is communicated, which can be made more or less ambiguous. Johnston found that as the amount of critical information in a message decreased, the effect of prior beliefs about the personal attributes of the other increased (Johnston, 1978 and 1980). A second method of creating different levels of ambiguity was to present to subjects videotaped segments of counseling interviews, requiring them to decide how to treat the confederate on the tape, in which the verbal and nonverbal cues were either congruent or incongruent with each other.

Johnston found that prior beliefs had a strong effect on the interpretations of incongruent situations. Johnston also found that prior beliefs about personal attributes had an effect in situations that were basically congruent with this effect depending upon how congruent the situation was. The more congruent the situation, which presumably means that there is less ambiguous communication, the less the affect of the subject's prior belief on his interpretations (Johnston, 1980).

Two information processing principles formulated in the theory of status characteristics and expectation states are found to be also true in the processing of personal attributes. One of these is the "strength of relevance" assumption: while Johnston (1978) found that specific personal attributes, which are explicitly relevant in the situation, have a greater effect than diffuse attributes, which are initially nonrelevant, these nonrelevant diffuse attributes also exert a strong and significant effect on the subject's behavior. (See also Berger et al., 1977; Humphrey and Berger, 1981.) The other is the "combining" assumption: Meyer and Johnston, 1980 found that given ambiguous messages, when subjects are given inconsistent information about personal attributes of the other (that she is "outgoing," "excitable," and "enjoys people," and is also "quiet," "shy," and "keeps to herself") this information is combined in determining the subject's reaction to the other. Johnston, 1980, found that inconsistency between verbal and nonverbal channels of communication also resulted in subject's combining available information--in fact, information about personal attributes, information from the content of speech, and information from the nonverbal cues given off by the confederate was all used in determining the subject's behavior. Furthermore, the specific way in which this information is combined follows the aggregated expectation



assumption of the status characteristic theory: When the information provided is consistent, less weight is given to an additional piece of information that is congruent than one which is incongruent.

There is, of course, a great deal left to be done. Among the more important unsolved problems of this branch of expectation states theory is that of describing the process of the emergence of personality attributes. With respect to this problem Berger and Talley (1983) have suggested the possibility that various kinds of characteristics emerge out of distinct social processes: characteristics having to do with performance dimensions out of status processes, characteristics having to do with moral dimensions out of an evaluation social control process, and characteristics having to do with emotional dimensions out of affect and sentiment processes. Each of these is in itself a situationally specific, relational process. The possibility exists, however, that each has, as one of its resultants, transituational consequences that are activated by the presence of the same specific other in different situations. Thus, it is specific relations between individuals which gives the process its stability; while its variability across situations depends in part on the shifting composition of individuals.

#### B. Moral Characteristics

The "power and prestige" branch of expectation states theory was originally concerned with performance characteristics in task-oriented groups. In extending the concepts of this branch to status characteristics, however, it was assumed from the outset that such characteristics were

associated with moral as well as performance characteristics--with characteristics like honesty, responsibility, and fairness as well as characteristics like mathematical ability, meaning insight ability, and contrast sensitivity. But moral characteristics were not explicitly defined nor treated in any differentiated way by the status characteristics branch of expectation states theory. They were left in an essentially pretheoretical state of development. More recently, work has begun on the task of developing this concept and relating it to others in expectation states theory.

The most important question to be answered in formulating the place of moral characteristics in expectation states theory is whether such characteristics are differentiated from performance characteristics--and if they are, how? One reasonable way to conceive of such characteristics is to treat them as like performance characteristics in having two or more differentially evaluated states but unlike them in possessing no specified performance significance. Honesty, fairness, responsibility may be treated as valued states; they presumably do not imply high or low states of a specific ability in and of themselves. One may reasonably assume, as a working hypothesis, that, like performance characteristics, when they are directly relevant to conduct they determine the assumptions on which individuals base such conduct. For example, in an experiment on the prisoner's dilemma, where trustworthiness is known to be an important variable (Boyle and Bonacich, 1970), manipulating expectations of trustworthy behavior by the other should significantly increase the proportion of cooperative responses in the game. But suppose trustworthiness or "empathy" varies in a task-oriented group. Is it a factor in determining, say, the observed power-prestige order? Will it have

the same kinds of effects as a non-relevant performance characteristic? That a particular moral characteristic is not directly relevant in a task situation does not mean it will have no effect, of course: Performance characteristics that are specific to one type of task and that are not directly relevant nevertheless generalize, creating expectations for performance on still other kinds of tasks (Kervin, 1975). If moral characteristics do generalize and are a factor in creating power and prestige structures in task situations, the question then is to determine what mechanisms are involved in such a process.

Driskell (1982) has experimentally investigated this problem. He argues that moral characteristics generalize, and can become a factor in determining the power and prestige order in task situations. He reasons that in the absence of contradictory information (and the presence of strong task demands) individuals who differ in states of moral characteristics will act (and be reacted to) as though they also differed in terms of performance capacities (a "completion" argument). Driskell found that subjects who were experimentally varied on their own and their partner's "empathy" also varied on the influence they exerted in task situations. This effect is not a strong one, but it is also not negligible. Recently, Webster (1982) has proposed a series of experiments to extend this research: What are the conditions under which the magnitude of this "moral effect" is increased or decreased; and how are moral characteristics combined with consistent and inconsistent status characteristics in the formation of expectation states. Webster also proposes to pit Driskell's "completion" mechanism against a "balancing" mechanism--that task generalization occurs directly through the differential evaluations attached to the states of moral characteristics, a property moral characteristics shares with performance

characteristics (on this issue of differential evaluations in status generalization see also Greenstein and Knottnerus, 1980).

While the initial theoretical question remains open, progress has been made: A procedure for experimentally investigating this problem has been developed, and alternative theoretical mechanisms have been formulated. Further development depends upon the outcome of current research--in particular, on determining how and under what conditions moral elements affect the formation of expectation states in problem solving situations.

### C. The Formation of Reward Expectations

The status value theory of distributive justice, which was described in section III-C, is largely concerned with the "justice" of actual allocations of rewards and how individuals respond to injustice. It formulates how the meaning of particular situations comes to be defined in terms of its relation to a "referential structure," a socially created and validated generalized frame of reference. The referential structure, together with similarity relations between it and an immediate action situation, create reward expectations in the particular situation. The relation between these reward expectations and actual allocations of rewards generates a justice assessment process. This theory describes the formation of reward expectations under relatively simplified conditions; the primary focus of the theory is on the meaning of "justice" and its consequences. One of the recent developments in expectation-states theory is to isolate the problem of the formation of reward expectations and develop this as an independent line of work, bringing to bear on this question theoretical

ideas from two branches of the program--status characteristics theory and the theory of distributive justice. This research, which can be distinguished from the original distributive justice research by its shift in focus, is concerned with distinguishing different kinds of referential structures, with the effect of multiple referential structures on immediate task situations, and with the interrelations between reward expectations and status and task expectations.

Working from the concept previously developed of a "referential structure" as a set of beliefs describing how the states of a socially valued characteristic possessed by individuals are associated with differences in reward levels, the more recently developed theory of reward expectations distinguishes different types of such structures.

Categorical referential structures associate rewards with broad social categories, like age, sex, race, or education. Essentially, they invoke criteria of "who you are" in determining the distribution of rewards.

Ability referential structures associate rewards with specific performance characteristics, like mathematical, artistic, or meaning insight ability.

Essentially, they invoke criteria of "what you can do" or "what are your capacities" as a bases of allocating rewards. Outcome referential

structures associate rewards with actual performances and achievements.

Essentially, they invoke criteria of "what you have done" in the immediate situation. Task situations can be distinguished by the pattern of

different types of referential structures that govern the allocation of rewards: From those where only immediate performance counts, to those where a combination of ability, immediate performance, and status category count and to those where only status category counts (e.g., the "pure" seniority situation). The current version of the theory of reward formations is

formulated for status and reward situations in which an ability standard is being used (rewards are based on your task capacities) and one or more categorical structures (e.g., those based on educational attainment, seniority, or sexual status) may become activated as additional bases for allocating rewards.

With respect to such status and reward situations, the reward expectation formulation addresses a number of major theoretical questions: What are the conditions under which different referential structures will become activated, i.e., become bases of reward expectancies in the immediate situation? If multiple referential structures are activated, how are they organized in the situation? How are the status distinctions which exist in the situation related to the type of reward expectations that are formed? How can we describe the interrelation of task and reward expectations in the same status situation? Given the actual allocation of rewards in a status and reward situation, how is this allocation related to the task expectations that are formed and in turn to the actual task performances which occur in the situation?

The reward expectation formulation is a theoretical extension of the latest version of the status characteristic theory. In addition to introducing concepts and assumptions that are unique to this formulation (concepts to describe the different types of referential structures, an assumption to describe the activation of such a structure, etc.), it makes use of concepts that have been developed in the status characteristics theory. For example, the concepts of paths of expectancies (relevance) and strength of expectancies are extended to cover reward expectancies as well as task expectancies; and the aggregated expectation states assumption is

extended so that we can describe the formation, within the same status situation, of distinct but related reward and task expectations. The result is an abstract theory describing the formation of reward expectations in status situations.

From this theory a set of theorems is derived which provides answers to the theoretical questions that have been posed in developing this formulation. Among these theorems are the following: (1) Combining Referential Structures. Which describes the conditions under which multiple standards are activated and how the information in them is combined to create overall reward expectations. (2) Status Consistency and Inequality. Which shows how increases in the number of consistent status characteristics produces increases in the inequality of reward expectations (though at a decreasing rate). (3) Status Inconsistency and Equality. Which shows how increases in the inconsistency of status characteristics produces decreases in the inequality in reward expectations. (4) Interrelation of Reward and Task Expectations. Which describes the conditions in which changes in task expectations (by adding or eliminating relevant status distinctions) produces correlated changes in reward expectations, and in turn changes in reward expectations (by adding or deleting standards) produces correlated changes in task expectations, and therefore actual task performances. (5) Reward Allocation. Which shows how the actual allocation of rewards generates task expectancies consistent with these rewards, and how status characteristics and rewards combine to create overall task expectations.

Some research already exists that is specifically relevant to this formulation, and which in general provides support for its theoretical

arguments. See Webster and Smith (1978) on the role of referential structures in creating reward expectations, and Jasso and Rossi (1977) and Alves and Rossi (1978) on the use of multiple referential structures in American society as well as their combined effort in determining reward expectations. On the interrelation of task and reward expectations, see Cook (1975) and Parcel and Cook (1977); and on the generation of task expectations as a consequence of reward allocation, see studies by Lerner (1965), Cook (1970, 1975), and Harrod (1980).

While the limited evidence available from research specifically relevant to this formulation provides support of the ideas in it, the task of empirically investigating this theory, in a rigorous manner, is still ahead. Provided that the theory is supported by these rigorous tests, the theoretical task is to generalize it to other status and reward situations. We will want to explain, for example, how outcome referential structures are activated, and how they are combined with categorical and ability structures to determine the complex rewards standards that govern different situations. In addition we want to describe and explain how actual performances create new task and reward expectations in situations where complex reward standards are operating.

#### D. Cues, Expectations, and Behavior

It is clear that in open interaction situations a wide variety of cues are used to form expectation states about self and other: direct references to who one is or one's background, how one dresses, how one talks, including diction, syntax, accent, tone, how fast one talks, eye gaze, nonverbal cues such as posture, facial expression, how one places one's hands, and many others (see in particular Schefflen and Schefflen, 1972; Schefflen, 1973; and Mehrabian, 1972). An obviously important problem in the study of status



organizing processes is how such cues are used to form expectation states. This is something no branch of expectation states theory has so far attempted. Thus, we want to extend our theories to show how and what cues and cue-clusters are used by individuals to assign to self and other states of specific and diffuse status characteristics. The key word here is "extend." The program already has theories relevant to this problem: including those in the evaluation-expectation branch, and those in the status characteristics branch.

A major problem in relating research on cues to expectation state theories is to classify the wide variety of cues and cue-clusters into theoretically meaningful kinds. To do this Berger, Ridgeway, Rosenholtz, and Webster (forthcoming) first distinguish in the (very large) existing literature indicative cues from expressive cues (the terminology is theirs). Cues are "indicative," when they provide an identification of a state or condition of the actor by self or other labelling, e.g., "I'm a woman," "I'm a Black," "He's a Chicano," "He's an Ivy League student, a Harvard undergraduate." Cues may be "expressive" as when they exhibit or give off signs which are used to identify a state or condition of the actor, e.g., the appearance, dress and speech pattern of a woman, the appearance and speech accents of Blacks and Chicanos, and the speech pattern and often distinctive dress of the Ivy League undergraduate. This distinction roughly corresponds to the verbal, nonverbal distinction. It is important to remember that on the basis of extensive previous research, we have every reason to believe that expressive cues are more powerful than indicative cues (see Mehrabian, 1972).

Berger et al. also claim that from the viewpoint of expectation states theory it is useful and important to distinguish task cues from categorical cues--a distinction which crosscuts the indicative expressive

one. Task cues provide information that is relevant to the task characteristics possessed by the actors in the situation. Among the most important such cues that have been studied (and that are also expressive) are: speech rates, fluency, tone, and eye gaze. Categorical cues provide information that is relevant to the status characteristics possessed by the actors--in particular, the diffuse status characteristic, e.g., sex, race, occupation, educational attainment, etc. Among the most important of these cues that have been studied (and are also expressive) are: accent, syntax, phonology.

Berger and his colleagues review some of the extensive literature on cues which has recently emerged. Concentrating primarily on expressive cues--task and categorical--they seek to organize this literature in terms of a number of generalizations and principles. These generalizations and principles in turn become the objects of research and, more importantly, become the basic assertions which have to be accounted for and explained by the theories in the expectation states program. We review briefly some of the generalizations they have abstracted from this literature.

Considering first situations where individuals are homogeneous with respect to status characteristics, i.e., do not differ in race, sex, educational attainment, or occupational faction, etc., Berger et al. find that for these status homogeneous situations: If individuals differ in terms of task cues this leads to correlated differentiation in power and prestige behaviors and/or assessments of task capacities. (For rate of speech see Smith et al., 1975; for fluency, see Lay and Burrton, 1968; for tone, see Mehrabian and Wiener, 1967; for eye gaze, see Rosa and Mazur, 1979.) Following Conner (forthcoming), Berger et al. claim that this generalization can be explained by the evaluation expectation states theory. Briefly the argument is that differences in task cues lead to differences

in unit evaluations of the actors' acts, differences in rates of received action opportunities, and even differences in the induction of task abilities possessed by the actors. These in turn create differences in task expectations and in such power and prestige behaviors as exercised influence.

Berger and his colleagues next consider situations where individuals are differentiated in terms of such status characteristics as race, sex, educational attainment, occupational position. For such situations they find that: If individuals are differentiated in terms of status characteristics, then their differentiation on task cues will coincide with their status differentiation (see for example, Terrell et al., 1977, McMillan et al., 1977, Exline, Ellyson, and Long, 1975, and Ellyson, Dovidio, Corson, Vinicur, 1980). Berger and his colleagues believe that this is a basic empirical generalization which describes what they call the status governance of task cues. Further, they argue that if we regard task cue behaviors as "outcome" behaviors in the same sense as we regard the traditional power and prestige behaviors as outcome behaviors, we can explain this generalization by using the status characteristics theory. Briefly, differences in status characteristics become the bases of differences in expectation states that in turn determine congruent differences in task cues. This type of explanation also implies: (1) that: changes in the status situation will lead to correlated changes in task cues (a causal relation); and (2) that the level of task cue behaviors should be a direct function of expectation advantages that are based on status differences (a strictly dependent relation). For further discussion of these implementations also see Ridgeway et al., 1983.

Because of the operation of the status governance principle, we normally expect to find that the distribution of task cues is congruent with

the distribution of categorical cues. But what about situations in which the distribution of such cues is not congruent, for example, ones in which high task cues are associated with individuals whose categorical cues signify low status states--what happens in such situations? Examining such situations Berger and his colleagues find that: If the distribution of task cues is incongruent with the distribution of categorical cues, then each set of cues will exert a discernible and significant effect on the actor's behavior (see, for example, Triandis et al, 1966; McCroskey and Mehrley, 1969; Miller et al., 1976).\* Berger et al. believe that this relation also can be explained using status characteristics theory. Briefly

---

\*The set of results from a recent study by Lee and Ofshe (1981) is an exception to the general findings in this area. In their study Lee and Ofshe pitted categorical cues (involving occupational position) against task cues (rate of speech, tone, loudness, gaze, etc.)--which they refer to as "styles of behavior" variables. Briefly, Lee and Ofshe find that given incongruency of categorical and task cues, only the latter have an effect. There are many features in their procedures that could account for these anomalous results. In particular, the fact that these writers paid no attention to the issue of making conflicting cues equivalent--for example, the use of task cues that are expressive and categorical cues that are indicative (see above on the relative effectiveness of expressive versus indicative cues). This study highlights the pitfalls that are involved in trying to make theoretical judgments about the relative effectiveness of task versus categorical cues when the issue of making these cues equivalent (on other dimensions) is ignored. See also Berger and Zelditch (1983); Nemeth (1983); Sherman (1983).

the argument is that task and categorical cues make task characteristics and diffuse status characteristics significant in the status situation. Both sets of characteristics become elements in the actors' self-other expectations (via the information processing principles described in the status theory); and the actors' behaviors are determined by these self-other expectation states. If this reasoning is correct, other things should also be true. Controlling for other factors which affect the equivalency of cues (multiple versus single cues, expressive versus indicative cues, etc.), in these incongruent situations we should also find: (1) that the effects of task and categorical cues on the actor's behavior are combined (for evidence on this see Miller, 1976, Tuzlak and Moore, 1983); (2) that if task cues are pitted against the categorical cues of an initially nonrelevant diffuse characteristic, the task cues should show a stronger effect on dependent behaviors (this follows from the differences in the "strengths of relevance" of the characteristics involved); and (3) under the appropriate conditions if task cues are pitted against categorical cues which are expressions of a number of different diffuse status characteristics, we should find evidence of inconsistency effects on dependent behavior (this follows from the principle of organized subsets).

Much remains to be done. The theories in the expectation states program must not only be able to provide accounts for the major findings in this area, they must also be able to generate further implications about these phenomena. This they do by their causal predictions, their predictions of strict dependency, and by their predictions of relevancy effects, and inconsistency effects. The immediate task now is to investigate for these particular effects. This will not only provide independent tests of these theoretical accounts, it will also provide a deeper understanding of how various types of cues are used in the structuring of social interaction.

## VII. Where Are We?

Sociologists do not have a great deal of experience assessing the development of theoretical research programs. Although there are probably a number of them in sociology and social psychology--for example, Heider's theory of structural balance, Davis and Moore's theory of stratification, research on distributive justice, mathematical models of social mobility--we do not usually look at them as theoretical research programs and therefore lack established criteria by which to assess them. Lakotos (1968, 1970) makes a point of contrasting progressive to degenerating programs, but despite its suggestiveness this language is of limited value in trying to assess where expectation states theory is at this point in its development. Some branches of expectation states theory might be described as "arrested" (most notably the authority-expectations branch) while others have been progressive (for example, the theory of status characteristics). But what can we say about the program as a whole?

Lacking well-established criteria of assessment, we might still fall back on describing some of the salient features of the program taken as a whole. As suggested in the previous paragraph, the growth of the program has been uneven. Some branches never have gotten beyond an initial formulation, others have stopped evolving after an initial period of development. Even in the case of branches that have shown notable cumulative development, like the power-prestige, status characteristics, or sources of evaluation branches, the fact is that it is too early in the history of the program to properly assess their staying power. The program is still quite young, most of its work is being carried on by a quite small body of researchers, and encompassing either the original founders or their students or students of their students. On the other hand, some of its

branches have emerged as well-established traditions that continue as active and growing lines of work which also have proven to be robust and powerful when applied. In addition, certain "core" theoretical and metatheoretical "themes" have evolved, such as the notion of an expectation states process, and the conception of a particular relationship between abstract theory, theoretical research, and applications (the "holy triangle"), which appear to be applicable to the study of a wide range of social phenomena. And this is perhaps the most important feature of the program that we see at present: the development of proliferations of new and important branches of research activity. Finally, we observe that while the pattern of theoretical development described in this paper may be unusual in sociological research (and may even be frightening to some), nevertheless, we believe that it is fully in accord with the premise that whatever else sociology is (and it is surely many things), it is also a generalizing science, and as such, committed to theoretical growth.

## REFERENCES

- Adams, J. S. "Toward an Understanding of Inequity." Journal of Abnormal and Social Psychology, 1963, 67, 422-436.
- Adams, J. S. "Inequity in Social Exchange." In L. Berkowitz (Ed.), Advances in Experimental Social Psychology. Vol. 2. New York: Academic Press, 1965.
- Alves, W., and Rossi, P. "Who Should Get What? Fairness Judgments of the Distribution of Earnings." American Journal of Sociology, 1978, 84, 561-564.
- Asch, S. E. "Studies of Independence and Submission to Group Pressure-- I. A Minority of One Against a Unanimous Majority." Prepublication copy. Swarthmore College, February 1955.
- Bales, R. F. "The Equilibrium Problem in Small Groups." In T. Parsons, R. F. Bales, and E. H. Shils (Eds.), Working Papers in the Theory of Action, Glencoe, Illinois: Free Press, 1953.
- Bales, R. F. and Slater, P. "Role Differentiation in Small Decision Making Groups." In T. Parsons and R. F. Bales (Eds.), Family, Socialization and Interaction Process, Glencoe, Illinois: Free Press, 1955.
- Bales, R. F., et al. "Channels of Communication in Small Groups." American Sociological Review, 1951, 16, 461-468.
- Balkwell, J. W. "A Structural Theory of Self-Esteem Maintenance." Sociometry, 1969 (December), 32, 458-473.
- Balkwell, J. W. "Social Decision Making Behavior: An Empirical Test of Two Models." Sociometry, 1976, 39 (1), 19-30.
- Barchas, P., Ecker, B., Jose, W., Kopell, B., and Roth, W. T. "Brain Activity (CNV) as Affected by Social Comparison Process (Status)." Technical Report No. 52, Laboratory for Social Research, Stanford University, 1975.



- Berger, J. "Relations Between Performance, Rewards, and Action Opportunities in Small Groups." Unpublished doctoral dissertation, Harvard University, 1957.
- Berger, J. "Relations Between Performance, Rewards, and Action-Opportunities in Small Groups." Unpublished doctoral dissertation, Harvard University, 1958.
- Berger, J. "An Investigation of Processes of Role-Specialization in Small Problem-Solving Groups." Proposal funded by the National Science Foundation, July 1960.
- Berger, J., Cohen, B. P., Snell, J. L., Zelditch, M. Jr. Types of Formalization in Small-Group Research. Boston: Houghton Mifflin, 1962.
- Berger, J., Cohen, B. P., and Zelditch, M. Jr. "Status Characteristics and Expectation States." In J. Berger, M. Zelditch, Jr., and B. Anderson (Eds.), Sociological Theories in Progress, Vol. 1, Boston: Houghton Mifflin Company, 1966.
- Berger, J., Cohen, B. P., and Zelditch, M. Jr. "Status Characteristics and Social Interaction." American Sociological Review, 1972, 37, 241-255.
- Berger, J., and Conner, T. L. "Performance Expectations and Behavior in Small Groups." Acta Sociologica, 1969, 12, 186-197.
- Berger, J., and Conner, T. L. "Performance Expectations and Behavior in Small Groups: A Revised Formulation." In J. Berger, T. L. Conner, and M. H. Fisek (Eds.), Expectation States Theory: A Theoretical Research Program. Cambridge, Massachusetts: Winthrop Publishers Inc., 1974.

- Berger, J., Conner, T. L., and Fisek, M. H. (Eds.) Expectation States Theory: A Theoretical Research Program. Cambridge, Massachusetts: Winthrop, 1974.
- Berger, J., Conner, T. L., and McKeown, W. L. "Evaluations and the Formation and Maintenance of Performance Expectations." Human Relations, 1969 (December), 22, 481-502.
- Berger, J., and Fisek, M. H. "Consistent and Inconsistent Status Characteristics and the Determination of Power and Prestige Orders." Sociometry, 1970 (September), 33, 287-304.
- Berger, J., and Fisek, M. H. "A Generalization of the Theory of Status Characteristics and Expectation States." In J. Berger, T. L. Conner, and M. H. Fisek (Eds.), Expectation States Theory: A Theoretical Research Program, Cambridge, Massachusetts: Winthrop, 1974.
- Berger, J., Fisek, M. H., and Crosbie, P. V. "Multi-Characteristic Status Situations and the Determinations of Power and Prestige Orders." Technical Report No. 35, Laboratory for Social Research, Stanford University, 1970.
- Berger, J., Fisek, M. H., and Freese, L. "Paths of Relevance and the Determination of Power and Prestige Orders." Pacific Sociological Review, 1976, 19, 45-62.
- Berger, J., Fisek, M. H., Norman, R. Z., and Zelditch, M. Jr. Status Characteristics and Social Interaction: An Expectation States Approach. New York: Elsevier Scientific Publishing Co., Inc., 1977.
- Berger, J., Fisek, M. H., Norman, R. Z., and Wagner, D. G. "The Formation of Reward Expectations in Status Situations." In D. Messick and K. Cook (Eds.), Psychological and Sociological Perspectives on Equity Theory, New York: Praeger Scientific Press, forthcoming, 1983. ✓

- Berger, J., Ridgeway, C., Rosenholtz, S., and Webster, M. Jr. "Cues, Expectations, and Behaviors." In E. J. Lawler (Ed.), Advances in Group Processes: Theory and Research. Vol. I. Greenwich, Connecticut: JAI Press, forthcoming, 1984. \*
- Berger, J., Rosenholtz, S. J., and Zelditch, M. Jr. "Status Organizing Processes." Annual Review of Sociology, 1980 (August), 6, 479-508.
- Berger, J., and Snell, J. L. "A Stochastic Theory for Self-Other Expectations." Technical Report No. 1, Laboratory for Social Research, Stanford University, 1961.
- Berger, J., and Webster, M. Jr. "Integrating Social Processes." Paper presented at the Annual Meeting of the Southern Sociological Society, April 1979.
- Berger, J., and Zelditch, M. Jr. "Authority and Performance Expectations." Unpublished manuscript. Department of Sociology, Stanford University, 1962.
- Berger, J., and Zelditch, M. Jr. "Artifacts and Challenges: A Comment on Lee and Oshe." Social Psychology Quarterly, 1983, 46 (1), 59-62.
- Berger, J., Zelditch, M. Jr., and Anderson, B. "Introduction." Sociological Theories in Progress, Vol. 2, Boston: Houghton Mifflin, 1972.
- Berger, J., Zelditch, M. Jr., Anderson, B., and Cohen, B. P. "Distributive Justice: A Status Value Formulation." Technical Report No. 28, Laboratory for Social Research, Stanford University, April 1968.
- Berger, J., Zelditch, M. Jr., Anderson, B., and Cohen, B. P. "Structural Aspects of Distributive Justice: A Status Value Formulation." In J. Berger, M. Zelditch, Jr., and B. Anderson (Eds.), Sociological Theories in Progress, Vol. 2. Boston: Houghton Mifflin, 1972.
- Boyle, R., and Bonacich, P. "The Development of Trust and Mistrust in Mixed-Motive Games." Sociometry, 1970, 33, 123-139.

- Camilleri, S. F., and Berger, J. "Decision-Making and Social Influence: A Model and An Experimental Test." Sociometry, 1967 (December), 30, 367-378.
- Camilleri, S. F., Berger, J., and Conner, T. L. "A Formal Theory of Decision-Making." In J. Berger, M. Zelditch, Jr., and B. Anderson (Eds.), Sociological Theories in Progress, Vol. 2. Boston: Houghton Mifflin, 1972.
- Camilleri, S. F., and Conner, T. L. "Decision-Making and Social Influence: A Revised Model and Further Experimental Evidence." Sociometry, 1976, 39 (1), 30-38.
- Caudill, W. The Psychiatric Hospital as a Small Society. Cambridge, Massachusetts: Harvard University Press, 1958.
- Cohen, B. P., Berger, J., and Zelditch, M. Jr. "Status Conceptions and Interaction: A Case Study of the Problem of Developing Cumulative Knowledge." In C. G. McClintock (Ed.), Experimental Social Psychology, New York: Holt, Rinehart and Winston, 1972.
- Cohen, E. G. "Interracial Interaction Disability: A Problem for Integrated Education." Urban Education, 1971 (January), 336-356.
- Cohen, E. G. "Interracial Interaction Disability." Human Relations, 1972, 25 (1), 9-24.
- Cohen, E. G. "Expectation States and Interracial Interaction in School Settings." Annual Review of Sociology, 1982, 8, 209-235. \* ✓
- Cohen, E. G., and Roper, S. S. "Modification of Interracial Interaction Disability: An Application of Status Characteristic Theory." American Sociological Review, 1972 (December), 37, 643-655.

Cohen, E. G., and Sharan, S. "Modifying Status Relations in Israeli Youth: An Application of Expectation States Theory." Paper presented at the annual meeting of the American Education Research Association, San Francisco, 1976.

Conner, T. L. "Continual Disagreement and the Assignment of Self-Other Performance Expectations." Unpublished doctoral dissertation, Department of Sociology, Stanford University, 1965.

Conner, T. L. "Performance Expectations and the Initiation of Problem Solving Attempts." Journal of Mathematical Sociology, 1977, 5, \* 187-198.

Conner, T. L. "A Review and Extension of the Theory of Performance Expectations and Patterns of Interaction." In J. Berger and M. Zelditch, Jr. (Eds.), Studies in Expectation States Theory. San Francisco: Jossey-Bass, forthcoming, 1984.

Cook, K. "Analysis of a Distributive Justice Experiment: Goal Objects and Task Performance Expectations." Masters degree apprenticeship paper, Department of Sociology, Stanford University, September, 1970.

Cook, K. "Expectation Evaluations and Equity." American Sociological Review, 1975, 40, 372-388.

Crundall, I. A., and Foddy, M. "Vicarious Exposure to a Task as a Basis of Evaluative Competence." Social Psychology Quarterly, 1981, 44 \* ✓ (4), 331-338.

Donnenwerth, G. V., and Tornblom, K. Y. "Reactions to Three Types of Distributive Injustice." Human Relations, 1975, 28 (5), 407-430.

Driskell, J. E. Jr. "Personal Characteristics and Performance Expectations." Social Psychology Quarterly, 1982 (December), 45 (4). \* ✓

- Ellyson, S. L., Dovidio, J. F., Corson, R. L., and Vinicur, D. L. "Visual Dominance Behavior in Female Dyads: Situational and Personality Factors." Social Psychology Quarterly, 1980, 43 (3), 328-336.
- Evan, W. M, and Zelditch, M. Jr. "A Laboratory Experiment on Bureaucratic Authority." American Sociological Review, 1961 (December), 26, 883-893.
- Exline, R. V., Ellyson, S. L., and Long, B. "Visual Behavior as an Aspect of Power Role Relationships." In P. Pilner, L. Krames, and T. Alloway (Eds.), Advances in the Study of Communication and Affect. Vol. 2. New York: Plenum Press, 1975.
- Fararo, T. J. "An Expectation-States Process Model." In Introduction to Mathematical Sociology. New York: Wiley-Interscience, 1973.
- Fararo, T. J. "Review of Status Characteristics and Social Interaction: An Expectations States Approach." American Journal of Sociology, 1978, 84, 533-540. \* ✓
- Festinger, L. A Theory of Cognitive Dissonance. Stanford: Stanford University Press, 1957.
- Fisek, M. H. "The Evolution of Status Structures and Interaction in Task Oriented Discussion Groups." Unpublished doctoral dissertation, Department of Sociology, Stanford University, 1968.
- Fisek, M. H. "A Model for the Evolution of Status Structures in Task-Oriented Discussion Groups." In J. Berger, T. L. Conner, M. H. Fisek (Eds.), Expectation States Theory: A Theoretical Research Program. Cambridge, Massachusetts: Winthrop Publishers, 1974.
- Fisek, M. H., and Ofshe, R. "The Process of Status Evolution." Sociometry, 1970 (September), 33, 327-345.

- Foschi, M. "Imbalance Between Expectations and Evaluations." Paper presented at the Canadian Sociology and Anthropology Association Meetings, Calgary, Canada, 1968.
- Foschi, M. "Contradiction and Change of Performance Expectations." Canadian Review of Sociology and Anthropology, 1971, 8, 205-222.
- Foschi, M. "The Formation of Performance Expectations: A Test of A Conceptualization." Paper presented at the West Coast Conference for Small Group Research, Portland, Oregon, 1972a.
- Foschi, M. "On the Concept of Expectations." Acta Sociologica, 1972b, 15, 124-131.
- Foschi, M., and Foschi, R. "Expectations, Contradictions, and the Revision of Subjective Probabilities." Paper presented at the Canadian Sociology and Anthropology Association Meetings, Montreal, Canada, 1972.
- Foschi, M., and Foschi, R. "Evaluations and Expectations: A Bayesian Model." Journal of Mathematical Sociology, 1976, 4 (2), 279-293.
- Foschi, M., and Foschi, R. "A Bayesian Model for Performance Expectations: Extension and Simulation." Social Psychology Quarterly, 1979, 42 (3), 232-241. \*
- Foschi, M., and Foddy, M. "Standards, Expectations, and the Assignment of Abilities to Self and Other." Grant proposal to the Social Sciences and Humanities Research Council of Canada, August 1981.
- Foschi, M., and Plecash, J. S. "Sex Differences in the Attribution of Success and Failure: An Expectation-States Explanation." Paper presented at the Canadian Sociology and Anthropology Association Meetings, 1983.
- Fox, J., and Moore, J. C. Jr. "Status Characteristics and Expectation States: Fitting and Testing a Recent Model." Social Psychology Quarterly, 1979, 42, 126-134. \*
- Freese, L. "Conditions for status equality." Sociometry, 1974, 37, 147-188.
- Freese, L. "The Generalization of Specific Performance Expectations." Sociometry, 1976 (September), 39 (3), 194-200.

- Freese, L., and Cohen, B. P. "Eliminating Status Generalization."  
Sociometry, 1973, 36, 177-193.
- Gouldner, A. W. The Coming Crisis of Western Sociology. New York: Avon, 1970.
- Greenstein, T. N., and Knottnerus, J. D. "The Effects of Differential Evaluations on Status Generalization." Social Psychology Quarterly, 1980, 43, 147-154. \*
- Harris, W.A.H. Jr. "Status, Attention, and Performance." Paper presented at the Annual Meeting of the American Sociological Association, New York, August 1980.
- Harris, W.A.H. Jr. "A Physiological Investigation of Social Status." Unpublished doctoral dissertation, Department of Sociology, Stanford University, June 1981.
- Harrod, W. J. "Expectations from Unequal Rewards." Social Psychology Quarterly, 1980, 43 (1), 126-130. \*
- Harvey, O. J. "An Experimental Approach to the Study of Status Relations in Informal Groups." American Sociological Review, 1953, 18, 357-367.
- Heinecke, C., and Bales, R. F. "Developmental Trends in the Structure of Small Groups." Sociometry, 1953, 16, 7-38.
- Hembroff, L. A. "Resolving Status Inconsistency: An Expectation States Theory and Test." Social Forces, 1982, 183-205. \*
- Homans, G. C. Social Behavior: Its Elementary Forms. Revised edition. New York: Harcourt Brace Jovanovich, 1961, 1974.
- Homans, G. C. "Contemporary Theory in Sociology." In R.E.L. Faris (Ed.), Handbook of Modern Sociology, Chicago: Rand McNally, 1964.



- Homans, G. C. The Nature of Social Science. New York: Harcourt, Brace & World, 1967.
- Humphreys, P., and Berger, J. "Theoretical Consequences of the Status Characteristics Formulation." American Journal of Sociology, 1981 (March).
- Hurwitz, J. I., Zander, A. F., and Hymovitch, B. "Some Effects of Power on the Relations Among Group Members." In D. Cartwright and A. Zander (Eds.), Group Dynamics, New York: Harper & Row, 1960.
- Jasso, G. "On the Justice of Earnings: A New Specification of the Justice Evaluation Function." American Journal of Sociology, 1978, 83 (6), 1398-1419.
- Jasso, G. "A New Theory of Distributive Justice." American Sociological Review, 1980, 45, 3-32.
- Jasso, G., and Rossi, P. H. "Distributive Justice and Earned Income." American Sociological Review, 1977 (August), 42, 639-651.
- Johnston, J. R. "Investigation of Pseudo-Mutuality, Double Binding and Scapegoating - An Expectation-States Approach." Technical Report No. 55, Laboratory for Social Research, Department of Sociology, Stanford University, 1977.
- Johnston, J. R. "Stereotyping, Scapegoating and Pseudo-Mutuality--An Expectation-States Approach." Unpublished doctoral dissertation, Department of Sociology, Stanford University, 1978.
- Johnston, J. R. "Resolution of Verbal/Nonverbal Contradictions in Communication." Paper presented at the Annual Meeting of the Pacific Sociological Association, San Francisco, April 1980.

- Kemeny, J. G., and Snell, J. L. Finite Markov Chains. Princeton, New Jersey: D. Van Nostrand, 1960.
- Kervin, J. B. "An Information Processing Model for the Formation of Performance Expectations in Small Groups." Unpublished doctoral dissertation, Johns Hopkins University, 1972.
- Kervin, J. B. "Extending Expectation States Theory: A Quantitative Model." Sociometry, 1974, 37, 349-362.
- Kervin, J. B. "Equating Information and Influence: A Test of Three Models." Mimeograph. Department of Sociology, University of Toronto, 1975.
- Kervin, J. B. "An Information-Combining Model for Expectation States Theory: Derivation and Tests." Journal of Mathematical Sociology, 1977, 5, 199-214.
- Knottnerus, J. D., and Greenstein, T. N. "Status and Performance Characteristics in Social Interaction: A Theory of Status Validation." Social Psychology Quarterly, 1981, 44 (4), 338-349. \*
- Kuhn, T. S. The Structure of Scientific Revolutions. In O. Neurath, R. Carnap, and C. Morris (Eds.), International Encyclopedia of Unified Science, Chicago: University of Chicago Press, 1962; Revised Edition, 1970.
- Lakatos, I. "Criticism and the Methodology of Scientific Research Programmes." Proceedings of the Aristotelian Society, 1968, 69, 149-186.

- Lakatos, I. "Falsification and the Methodology of Scientific Research Programmes." In I. Lakatos and A. Musgrave (Eds.), Criticism and the Growth of Knowledge, Cambridge, England: Cambridge University Press, 1970.
- Lay, C. L., and Burrton, B. F. "Perception of the Personality of the Hesitant Speaker." Perceptual and Motor Skills, 1968, 26, 951-956.
- Lee, M., and Ofshe, R. "The Impact of Behavioral Style and Status Characteristics on Social Influence: A Test of Two Competing Theories." Social Psychology Quarterly, 1981, 44 (2), 73-82.
- Lerner, M. "Evaluation of Performance as a Function of Performer's Reward and Attractiveness." Journal of Personality and Social Psychology, 1965, 1, 355-360.
- Lindenberg, S. "Rational, Repetitive Choice: The Discrimination Model Versus the Camilleri-Berger Model." Social Psychology Quarterly, 1981, 44 (4), 312-330.
- Lockheed, M. E. "Sex and Social Influence: A Meta-Analysis Guided by Theory." In J. Berger and M. Zelditch, Jr., Studies in Expectation States Theory. San Francisco: Jossey-Bass, forthcoming, 1984.
- Lockheed, M. E., and Hall, K. P. "Conceptualizing Sex as a Status Characteristic: Applications to Leadership Training Strategies." \*  
Journal of Social Issues, 1976, 32(3), 111-124.
- Lohman, M. R. "Changing a Racial Status Ordering: Implications for Desegregation." Journal of Education and Urban Society, 1972 (August), 4, 383-402.
- McCroskey, J. C., and Mehrley, R. S. "The Effects of Disorganization and Nonfluency on Attitude Change and Source Credibility." Speech Monographs, 1969, 36, 13-21.

- McMahon, A. M., and Camilleri, S. F. "Organizational Structure and Voluntary Participation in Collective-Good Decisions." American Sociological Review, 1975, 40 (5), 616-644.
- McMillan, J. R., Clifton, A. K., McGrath, D., and Gale, W. S. "Women's Language: Uncertainty or Interpersonal Sensitivity and Emotionality." Sex Roles, 1977, 3, 545-559.
- Markovsky, B., Smith, L., and Berger, J. "The Transfer of Status Interventions." Technical Report No. 87, Department of Sociology, Stanford University, April 1983.
- Masterman, M. "The Nature of a Paradigm." In I. Lakatos and A. Musgrave (Eds.), Criticism and the Growth of Knowledge, Cambridge, England: Cambridge University Press, 1970.
- Martin, P. A. A Marital Therapy Manual. New York: Brunner/Mazel, 1976.
- Martin, Sell, and Hembroff, L. "Total Performance Inconsistency and Status Generalization." Paper presented at the annual meeting of the American Sociological Association, 1978.
- Meeker, B. F., and O'Neill, P. A. "Sex Roles and Interpersonal Behavior in Task-Oriented Groups." American Sociological Review, 1977 (February), 42, 91-105.
- Mehrabian, A. Nonverbal Communication. Chicago: Aldine-Atherton, 1972.
- Mehrabian, A., and Wiener, M. "Decoding of Inconsistent Communications." Journal of Personality and Social Psychology, 1967, 6 (1), 109-114.
- Meyer, L., and Johnston, J. R. "Ambiguous Communication and Personality Beliefs: Implications for Making and Breaking Stereotypes." Paper presented at the Annual Meeting of the Pacific Sociological Association, San Francisco, April 1980.

- Miller, M., Maruyama, G., Beaber, R. S., and Vallone, K. "Speed of Speech and Persuasion." Journal of Personality and Social Psychology, 1976, 34, 615-624.
- Mischel, W. Personality and Assessment. New York: Wiley, 1968.
- Moore, J. C. Jr. "Status and Influence in Small Group Interactions." Sociometry, 1968 (March), 31, 47-63.
- Moore, J. C. Jr. "Social Status and Social Influence: Process Considerations." Sociometry 1969 (June), 32, 145-168.
- Moore, J. C. Jr. "Role Enactment and Self-Identity: An Expectation States Approach." Paper presented at the West Coast Small Groups Conference, San Jose, California, April 1983.
- Moore, J. C. Jr. "Role Enactment and Self-Identity: An Expectation States Approach." In J. Berger and M. Zelditch, Jr. (Eds.), Studies in Expectation States Theory, San Francisco: Jossey-Bass, forthcoming, 1984.
- Nemeth, C. J. "Reflections on the Dialogue Between Status and Style: Influence Processes of Social Control and Social Change." Social Psychology Quarterly, 1983, 46 (1), 70-74. \* ✓
- Ofshe, L. "Social Choice and Utility in Coalition Formation." Unpublished Masters degree apprenticeship paper, Department of Sociology, Stanford University, December 1967.
- Ofshe, L. "Social Choice and Utility in Coalition Formation." Unpublished doctoral dissertation, Department of Sociology, Stanford University, December 1968.
- Ofshe, L., and Ofshe, R. Utility and Choice in Social Interaction. New Jersey: Prentice-Hall, 1970.
- Parcel, T. L., and Cook, K. S. "Status Characteristics, Reward Allocation, and Equity." Sociometry, 1977, 40 (4), 311-324.

- Pugh, M. D., and Wahrman, R. "Neutralizing Sexism in Mixed-Sex Groups: Do Women Have to Be Better than Men?" American Journal of Sociology, 1983 (January), 88 (4), 746-762.
- Ridgeway, C. L. "Status in Groups: The Importance of Motivation." American Sociological Review, 1982 (February), 47, 76-88. \*
- Ridgeway, C. L., Smith, L., and Berger, J. "Nonverbal Cues and Status: An Expectation States Approach." Mimeograph. February 1983.
- Rosa, E., and Mazur, A. "Incipient Status in Small Groups." Social Forces, 1979 (September), 59 (1), 18-37. \*
- Rosenholtz, S. J. "The Multiple Ability Curriculum: An Intervention Against the Self-Fulfilling Prophecy." Unpublished doctoral dissertation, Department of Sociology, Stanford University, 1977.
- Rosenholtz, S. J. "Treating Problems of Academic Status." In J. Berger and M. Zelditch, Jr. (Eds.), Studies in Expectation States Theory. San Francisco: Jossey Bass, in press.
- Rosenholtz, S. J., and Cohen, E. G. "Status in the Eye of the Beholder." In J. Berger and M. Zelditch, Jr. (Eds.), Studies in Expectation States Theory, San Francisco: Jossey-Bass, forthcoming, 1984.
- Sager, C. J., and Kaplan, H. S. (Eds.) Progress in Group and Family Therapy. New York: Brunner/Mazel, 1972.
- Schleflen, A. E. How Behavior Means. New York: Gordon and Breach Science Publishers, 1973.
- Schleflen, A. E. and Schleflen, A. Body Language and Social Order. Englewood Cliffs, New Jersey: Prentice-Hall, 1972.
- Shelley, R. K. "Interpersonal Influence and Decision-Making: Monetary vs. Non-Monetary Rewards." Unpublished doctoral dissertation, Department of Sociology, Stanford University, 1972.

- Shelley, R. K. "Sentiment, Prestige and Influence." Grant proposal to the National Science Foundation, Department of Sociology, University of Ohio, May 1979.
- Sherif, M., White, B. J., and Harvey, O. J. "Status in Experimentally Produced Groups." American Journal of Sociology, 1955, 60, 370-379.
- Sherman, S. J. "Expectation-Based and Automatic Behavior: A Comment on Lee and Ofshe, and Berger and Zelditch." Social Psychology Quarterly, 1983, 46 (1), 66-70.
- Siegel, S., and Goldstein, D. A. "Decision-Making Behavior in a Two-Choice Uncertain Outcome Situation." Journal of Experimental Psychology, 1959, 57, 37-42.
- Siegel, S., Siegel, A. E., and Andrews, J. M. Choice, Strategy, and Utility. New York: McGraw Hill, 1964.
- Skvoretz, J. "Extending Expectation States Theory: Comparative Status Models of Participation in N Person Groups." Social Forces, 1981, \*  
59 (3), 752-770.
- Skvoretz, J. "Status Characteristics, Expectation States and Participation in N Person Task Groups." In J. Berger and M. Zelditch, Jr. (Eds.), Studies in Expectation States Theory, San Francisco: Jossey-Bass, forthcoming, 1983.
- Smith, B. L., Brown, B. L., Strong, W. J., and Rencher, A. C. "Effects of Speech Rate on Personality Perception." Language and Speech, 1975, 18, 142-152.
- Sobieszek, B. "Multiple Sources and the Formation of Performance Expectations." Unpublished doctoral dissertation, Department of Sociology, Stanford University, 1970.

- Sobieszek, B. "Multiple Sources and the Formation of Performance Expectations." Pacific Sociological Review, 1972 (January), 15, 103-122.
- Sobieszek, B. T., and Webster, M. Jr. "Conflicting Sources of Evaluation." Sociometry, 1973 (December), 36 (4), 550-560.
- Strodtbeck, F. L., James, R. M., and Hawkins, C. "Social Status in Jury Deliberations." In E. E. Maccoby, T. M. Newcomb, and E. L. Hartley (Eds.), Readings in Social Psychology, Third Edition, New York: Holt, 1958.
- Talley, J., and Berger, J. "Social Control as a State Organizing Process." Mimeograph, Stanford University, 1983.
- Tammivaara, J. S. "The Effects of Task Structure on Beliefs About Competence and Participation in Small Groups." Sociology of Education, 1982, 55, 212-222.
- Terrell, F., Terrell, S. L., and Golin, S. "Language Productivity of Black and White Children in Black Versus White Situations." Language and Speech, 1977, 20 (4), 377-383.
- Tornblom, K. Y. "Distributive Justice: Typology and Propositions." Human Relations, 1977, 30 (1), 1-24.
- Torrance, E. P. "Some Consequences of Power Differences on Decision Making in Permanent and Temporary Three-Man Groups." Research Studies, 22, 130-140, State College of Washington, Pullman, Washington, 1954.
- Tress, P. H. "Inconsistent Status Characteristics and Influence Processes: A Replication and Reformulation." Technical Report No. 6, Department of Sociology, Michigan State University, 1971.



- Triandis, H. C., Loh, W. D., and Levin, L. A. "Race, Status, Quality of Spoken English, and Opinions About Civil Rights as Determinants of Interpersonal Attitudes." Journal of Personality and Social Psychology, 1966, 3 (4), 468-472.
- Tuzlak, A., and Moore, J. C. "Status, Demeanor and Influence: An Empirical Reassessment." Submitted to Social Psychology Quarterly, May 1983.
- Wagner, D. G., and Berger, Jr. "Theoretical Research Programs: The Growth of Theoretical Knowledge in Sociology." Unpublished doctoral dissertation, Department of Sociology, Stanford University, August 1978.
- Wagner, D. G., and Berger, J. "Paths of Relevance and the Induction of Status-Task Expectancies: A Research Note." Social Forces, 1982 (December), 61 (2), 575-586. \*
- Wagner, D. G., and Ford, R. S. "Confirming and Disconfirming Performance Expectations: The Case of Gender." Paper presented at the West Coast Small Groups Conference, San Jose, California, April 1983.
- Walster, E., Berscheid, E., and Walster, G. W. "New Directions in Equity Research." Journal of Personality and Social Psychology, 1973, 25, 151-176.
- Walster, E., Walster, G. W., and Berscheid, E. Equity: Theory and Research. Boston: Allyn & Bacon, 1973.
- Wattendorf, J. F. "Interpersonal Similarity/Dissimilarity Bonds: An Expectation-States Approach." Unpublished doctoral dissertation, Department of Sociology, Stanford University, June 1979.
- Webster, M. A. Jr. "The Interaction Control Machines at the Laboratory for Social Research." Paper presented at the Small Groups Session, Pacific Sociological Association Meeting, April 1967.
- Webster, M. Jr. "Sources of Evaluations and Expectations for Performances." Sociometry, 1969, 32, 243-258.

- Webster, M. A. Jr. "Status Characteristics and Sources of Expectations." Report No. 82, Center for Social Organization of Schools, The Johns Hopkins University, 1970.
- Webster, M. A. Jr. "Equating Characteristics and Social Interaction: Two Experiments." Sociometry, 1977, 40 (1), 41-50.
- Webster, M. A. Jr. "Integrating Social Processes." Research proposal funded by National Science Foundation, 1980.
- Webster, M. A. Jr. "Moral Characteristics and Status Generalization." Research proposal funded by National Science Foundation, 1982.
- Webster, M. A. Jr., and Berger, J. "Equating Characteristics and Social Interactions." Unpublished manuscript, Department of Sociology, Stanford University, 1975.
- Webster, M. A. Jr., and Driskell, J. E. Jr. "Status Generalization: A Review and Some New Data." American Sociological Review, 1978 (April), 43, 220-236.
- Webster, M. A. Jr., and Driskell, J. E. Jr. "Beauty as Status." American Journal of Sociology, forthcoming, July 1983.
- Webster, M. A. Jr., Roberts, L., and Sobieszek, B. I. "Accepting 'Significant Others': Six Models." American Journal of Sociology, 1972 (November), 78, 576-598.
- Webster, M. A. Jr., and Smith, L. F. "Justice and Revolutionary Coalitions: A Test of Two Theories." American Journal of Sociology, 1978 (September), 84 (2), 267-292.
- Webster, M. A., Jr., and Sobieszek, B. I. Sources of Self-Evaluation: A Formal Theory of Significant Others and Social Influence New York: Wiley and Sons, 1974.
- Whyte, W. F. Street Corner Society. Chicago: University of Chicago Press, 1943.

- Yuchtman-Yaar, E., and Semyonov, M. "Ethnic Inequality in Israeli Schools and Sports: An Expectation-States Approach." American Journal of Sociology, 1979 (November), 85, 576-590.
- Zelditch, M. Jr., "Can You Really Study an Army in the Laboratory?" In A. Etzioni (Ed.), Complex Organizations, Second Edition, New York: Holt, Rinehart, and Winston, 1969.
- Zelditch, M. Jr., "Authority and Performance Expectations in Bureaucratic Organizations." In C. G. McClintock (Ed.), Experimental Social Psychology, New York: Holt, Rinehart, and Winston, 1972.
- Zelditch, M. Jr., "Do Multiple Strategies Converge?" Society, 1979, 16 (5), 25-30. \*
- Zelditch, M. Jr., Lauderdale, P., and Stublarec, S. "How are Inconsistencies Between Status and Ability Resolved?" Social Forces, 1980 (June), 58 (4), 1025-1043. \* ✓
- Zeller, R. A., and Warnecke, R. "The Utility of Constructs as Intervening Variables in the Interpretation of Experimental Results." Sociological Methods and Research, 1973, 2, 85-110.