Paths of Consistent and Inconsistent Status Information and the Induction of Relevance*

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* Research for this paper was supported by a grant from the National Science Foundation (GS34182). We would like to express our appreciation to Sally Burns, Linda Flanders, Bill Jose, Phil Pattenson and Rick Quinones for their advice and assistance.

Technical Report No. 53 December, 1975

Sociological interest in the effect of status characteristics on the behavior of individuals, particularly in face-to-face interaction, may be traced to the work of Simmel and of Park early in this century. First Simmel and then Park presented theoretical arguments suggesting that individuals perceive each other in terms of status categories, and that individuals then organize their behavior toward each other in accord with these perceptions."[1]" More recently, a rather large number of empirical studies has demonstrated the usefulness of these notions. In general, this literature has demonstrated that, when a task-oriented group is differentiated with respect to some external status characteristic, this status difference determines the distribution of power and prestige within the group, whether or not the status characteristic is directly related to the group task. (See, for example, Caudill, 1958: Chapter 10; Torrance, 1954; Strodtbeck, James and Hawkins, 1958; Strodtbeck and Mann, 1956; Katz, Goldston and Benjamin, 1958; Katz and Benjamin, 1960.)

Through a coordinated program of research and theory (Berger, Cohen and Zelditch, 1966; Berger, Conner and Fisek, 1974), a detailed explanation of these findings has been developed, consistent with Simmel's and Park's ideas; this explanation relates the status characteristics an individual is perceived to possess to stabilized conceptions of his performance capacities (called <u>expectation states</u>) he and others develop for his behavior on the basis of such characteristics.

The expectation states theoretical research program has developed along a number of different "paths" or "branches," two of which are of relevance here. First, a body of theory and related empirical evidence has attempted to account for the emergence and effects of

performance expectation states on behavior in interpersonal

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situations. For the present study, the most important derivation from the theoretical work is that differential expectation states within a group determine the distribution of power and prestige in the group. The related research uses a standardized experimental setting, originally developed by Berger (see Berger and Snell, 1961); results of these studies, expressly constructed to test the theory, support the derivation stated above (see particularly Berger and Conner, 1969).

A second branch of development in the program is concerned with the effects of status characteristics on expectation states and the circumstances under which these effects occur. The first theoretical formulation in this branch of the program (Berger, Cohen and Zelditcn, 1966) was designed primarily to account for the research results outlined at the beginning of this report. It argues that, if members of a task group are differentiated with respect to a diffuse status characteristic, this differentiation provides the basis for the formation of performance expectations by members of the group. Using the derivation mentioned above, the formulation also argues that diffuse status characteristics, through their relation to performance expectations, determine the power and prestige structure in a group. Research on the 1966 formulation has included evidence for the principle derivations of the theory, both from direct experimental tests (e.g., Moore, 1968, 1969; Berger, Cohen and Zelditch, 1972; Zeller and Warnecke, 1973) and from open interaction studies (e.g., Cohen, 1971, 1972; Cohen and Roper, 1972; Lohman, 1971; Lockheed and Hall, 1975). Other research has focused on extensions and refinements of the original formulation. Seashore (1968) and

Cohen, Kiker and Kruse (1369) studied the effects of equating or conflicting statuses. In addition, multiple characteristic status situations have been investigated by Berger and Fisek (1970), Berger, Fisek and Crosbie (1970), Tress (1971) and Kervin (1972). Finally, Berger, Fisek and Freese (1970) and Freese (1970) evaluated the effects of another kind of status element, the specific status characteristic, " on the determination of power and prestige structures.

Berger and Fisek (1974) present a generalization of the theory of status characteristics and expectation states. Its objectives are twofold: first, it extends the scope (i.e., increases the generality) of the theory to (1) describe the operation of both specific and diffuse characteristics on performance expectations via similar processes, and (2) describe the simultaneous operation of multiple characteristics, whether specific or diffuse; second, the formulation increases the explanatory power of the theory by accounting for each of the extensions and refinements of the earlier formulation as part of the theory itself, and by providing a structure from which new consequences can be derived.

The generalization is formulated from the point of view of an actor, p, in a small, informal, task-oriented group, who is oriented to two or more "social objects" in the group: himself, p', and at least one other actor, o. In this sense, the theory is p-centric. The task, T, on which the group is working is assumed to have the following characteristics: (1) T must have at least two differentially evaluated outcome states, one of which is defined as "success" and the other as "failure" at the task; (2) p must believe that there is at least one characteristic which is directly relevant to successful

completion of T (i.e., success is not a matter of chance); (3) T is unitary; and (4) T is collective (i.e., it is both necessary and legitimate for actors to take the behavior of one another into account in completing the task). For example, diagnosing a patient's illness may be considered an appropriate task if (1) it is believed that there is a correct and an incorrect diagnosis (i.e., one can distinguish between success and failure at the task), (2) p believes that "diagnostic skill" is involved in solving the problem the task presents, (3) no other type of task is immediately involved in the situation, and (4) the joint efforts of two or more doctors are both legitimate and required to arrive at an appropriate diagnosis.

The social objects in the group are described in terms of the characteristics each possesses, or is expected to possess. A characteristic is some property of an individual which might be used to describe him. A characteristic is a status characteristic if it consists of at least two states which are differentially evaluated in terms of honor, esteem, or desirability. Further, status characteristics may be either specific or diffuse (as defined in footnotes 3 and 4 above). The theory is assumed to apply in situations where (1) p' and o possess any number or kind of status characteristic, (2) at least one of these characteristics is connected to the task and/or discriminates between p' and o, and (3) possession of status characteristics is the only information members of the group initially have about one another. For example, the theory may apply in a situation involving a 25-year-old man and a 25-year-old woman. In this case, at least two status characteristics, age and sex, are present if either one evaluates adulthood more highly than youth (for example), and maleness more highly than femaleness (for example). Note, however,

that only sex discriminates between the two. If all these two people initially know about each other is their ages and their sexes, the situation meets the status requirements of the theory.

Any situation satisfying these conditions is designated S^*. That is, S^* is any situation in which there is an evaluated, unitary, collective task T to which p is oriented, and in which there are two or more social objects, p' and o, who possess any number of status characteristics, either specific or diffuse, at least one of which either discriminates between p' and o or is connected to the task directly. Thus, if we assume that our 25-year-old man and 25-year-old woman are interns and put them to work diagnosing a patient's illness, as described above, the situation satisfies all the conditions of S^*.

The states of status characteristics and of task outcomes are termed "elements" or "status elements," and are designated by e^ e^, or e_k- Social objects, p' and o, are designated by y or z.

Several types of relations, or bonds, may occur among the social objects and status elements in the situation. First is the relation of <u>possession</u> (or <u>expected possession</u>), which always involves a social object as transmitter and a status element as receiver of the relation; the possession relation is asymmetric: social objects may possess status elements but not vice versa. Second, the relation of <u>similarity</u> applies only between elements; similarity is symmetric: if element e^ is similar to element e^, then e^ is similar to e^. Third, the <u>relevance</u> relation involves each actor's "possession expectancies" foj any two elements in S^*; that is, an element e^ is relevant to element e^ if and only if, when y possesses e^, y expects or is expected to possess e.. Relevance is neither symmetric nor transitive; however, under certain special conditions (outlined below), actors in S^* are

assumed to behave as if^ the relation were both symmetric and transitive. Finally, direct task relevance is a special case of the relevance relation in which element e. is an outcome state of the task.

Using these entities and relations, the central definitions and assumptions of the theory account for the following processes:

1) How, and under what conditions, status elements possessed by group members come into play (i.e., become salient) in S^*. In general, if p' and o possess status characteristics that either are directly task relevant or, if not task relevant, discriminate between them, then these characteristics will become salient. Note that a discriminating characteristic does not become salient if and only if the characteristic is specifically dissociated from T (i.e., is already believed to be independent of T). To illustrate, let us return to our illness diagnosis example. Assume that the man and woman believe that males have more diagnostic skill than females. Or assume that neither the man nor the woman have any prior beliefs as to how sex differences are related to differences in diagnostic skill. In either case, sex is activated as a status characteristic; technically, sex has become salient in S_{ic}. Note that only if the status characteristic of sex is activated does the theory predict behavior correlated with "sex differences" (e.g., men engaging in more task-related behaviors than women). If sex is not activated, there are no grounds for predicting that those behavioral differences which are a function of sex as a status characteristic should appear (cf. Lockheed and Hall, 1975).

2) Given salience, how and under what conditions status elements possessed by group members become organized so as to define the

situation for them. Two separate processes are assumed to operate here. First, if there is a path of task relevance (defined in the next section) in S^*, then status elements originally only indirectly relevant tc T will, via a spread of relevance, become directly relevant to the task. Second, if there is no path of task relevance, then salient status elements that are originally non-related will become relevant to the task. In other words, actors act as if the burden of proof is on showing that status elements are not relevant to the task, rather than the other way around. Returning to our example, if p perceives sex as relevant to some other characteristic, say creativity, which in turn he perceives as relevant to diagnostic skill, the spread of relevance process argues that p will come to believe sex is directly relevant to diagnostic skill. Further, even if p does not perceive any relevance between sex and diagnostic skill (i.e., there is no path of task relevance), sex will <u>become</u> relevant to diagnostic skill, <u>unless</u> p <u>explicitly believes that sex is completely independent of diagnostic skill</u>. Note that, as long as sex is perceived as a salient status characteristic as described above, by virtue of the burden of proof process, both the male and the female group members begin with an expectation of male's superiority to female in a new task situation; that is, status superiors start with an "expectation advantage" in new task situations.

3) Given the organization of elements, through either the spread of relevance or burden of proof processes, how this organization determines the behavior of members of the group, particularly those behaviors comprising the observable power and prestige order (OPPO) of the group. In general, p is assumed to form "aggregated expectation states" for himself and o, such that the greater the combined relevance of positively evaluated status elements, possessed by an actor, that are directly relevant to the task, the higher will be the performance

expectations for that actor. Given that p has formed these aggregated expectation states, p's power and prestige position relative to o will be a direct function of p's expectation advantage over o (i.e., the value of p's aggregated expectation state minus the value of o's). More simply, the behavior of a status superior (defined in terms of expectation advantage), relative to that of a status inferior, - involves more task-related behavior (performance outputs), less reactive behavior (granting of action opportunities, communication of evaluations), and more exercised influence. The situation is, of course, just the opposite for the status inferior (i.e., less task-related behavior, more reactive behavior, and greater likelihood of being influenced rather than exercising influence). In our example above, therefore, we can assume that the male group member will, among other things, exercise more influence over the decisions of the group than will the female group member.^

To summarize, the 1974 generalization posits a status organizing process. It describes the various constituents (i.e., elements) which may become organized, suggests the sufficient conditions under which these elements become activated (i.e., available for processing), specifies the processes by which these elements operate in defining the status situation, accounts for the generation of behavioral expectations on the basis of the definition of the situation, and finally details the behavioral consequences of these expectations. More generally, the theory provides answers to the following questions:

1) What are the elements which a person may use in defining a situation in terms of status?
2) How do these status elements become organized so as to define a situation?

3) What are the behavioral consequences of the definition of a situation in terms of status?

A much more complete and formal description of the generalization may be found in Berger, Conner and Fisek (1974: 173-195).

STATEMENT OF THE PROBLEM

Berger and Fisek (1974: 195-202) report the results of two sets of experiments, designed to provide information and evidence relevant to the assumptions of the generalization. The first set of experiments (Berger and Fisek, 1970; Berger, Fisek and Crosbie, 1970) deals with the formation of expectation states in multiple status characteristic situations. The second set (Berger, Fisek and Freese, 1970) concerns the operation of the relevance process, and, in particular, the validity of the spread of relevance assumption. The results of that study indicate that relevance does, indeed, spread so that status elements which are originally indirectly relevant become directly relevanl to the task.* In other words, as noted above, actors in situation S act as if the relevance relation were symmetric and transitive.

The study reported here is concerned with a further exploration of the relevance process. The earlier study was concerned with the operation of relevance under conditions in which the indirectly relevant elements were <u>similar</u> in evaluation to each other and to the task elements; we now consider the operation of the relevance process unde: conditions in which the task elements are <u>not</u> all similar in evaluation to each other or to the directly relevant elements. First, will the spread of relevance process continue to operate? Second, if it does, will it operate in the same way or to the same degree? Third, if it does not operate in the same way or to the same degree, how does it operate?

The nature of the problem to be investigated may be clarified, using the appropriate definitions and assumptions from the generalization. First, the relevance relation is defined as presented above:

DEFINITION (Relevance) Element e^ is relevant to element e^ if and only if, when y possesses e^, y expects or is expected to possess ej.

As noted above, the relevance relation itself is logically neither symmetric nor transitive.

We may then define a "path of task relevance," a concept designed to capture the notion of indirect relational linkages between elements possessed by p' and o and task outcomes in S^*:

DEFINITION (Path of Task Relevance) A path of task relevance from e_i to e^ is a collection of distinct elements e^, &2> $^{e}3'$ •••» $^{e}_{n}$ (n ^ 3) together with n-1 relations, such that

1) a similarity or relevance relation holds between each pair e_1e_2 or e_2e_1, e_2e_3 or e_3e_2, ..., $e_{n-1}e_n$ or e_ne_{n-1}, with at least one of the relations being that of relevance;

2) the element e^ is possessed by y, and is salient in S^*, and the element e_n represents an outcome state of the task T.

A few things should be noted with regard to this definition. First, in the case where a path consists of two elements linked by a relevance bond, the path of task relevance and the direct task relevance bond are identical. Second, Condition 1 of the definition requires that, in a path of task relevance, the effect of a relevance relation be independent of its direction; a path from e_1 to e_n is identical to one from e to e,. Finally, although the definition does not

require it, for the sake of simplicity of exposition it is assumed that, if there is a path from p' to the task, there is a corresponding path from o to the task.

The assumption of the spread of task relevance argues that, given a path of task relevance in S^*, a new relevance bond will be induced in the situation directly linking e_j and e_n. Further, the number of paths inducing the same direct task relevance bond directly affects the "strength" of the induced bond, or its "probability of being established."[11] More formally:

ASSUMPTION (Spread of Task Relevance) Given a path of task relevance in S^*, relevance will spread such that the initial element of the path e_1 possessed by p' and o will become directly relevant to e_R, where e_n represents an outcome state of the group's task T. The greater the number of paths of a fixed type inducing a specific direct task relevance relation, the greater the degree of the induced relation.

Note that the assumption does not restrict the operation of the spread of relevance process to the induction of consistent task relevance bonds (i.e., to bonds in which the possessed status element and the task outcome are of the same evaluation sign). In fact, Berger am Fisek (1974: 185) suggest that the "Spread of Task Relevance process may give rise to 'consistent' as well as 'inconsistent' bonds in the status situation." However, as stated, the assumption leaves open the issue of whether the <u>strength</u> or <u>probability of induction</u> of the estal lished bond will be the same when the status elements linked by the process are inconsistent (i.e., dissimilar) in evaluation.

We may now restate more succinctly the issues to be considered in this study. Assume initially the existence of paths of task

relevance from p' and o to differentiated elements of the task. Earlier research indicates that, when elements along a path are consistent (i.e., similar) in evaluation, a direct task relevance bond is induced, connecting the possessed status element with a similarly evaluated or consistent task outcome. This study, to begin with, investigates whether a direct task relevance bond is induced when the elements on

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the path are inconsistent and the bond to be induced is inconsistent. Second, given that a direct task relevance bond is induced between inconsistently evaluated elements, we consider whether the strength (or probability of induction) of that bond is the same as the strength (or probability of induction) of the bond induced between consistently evaluated elements. Third, if the induced bonds are not identical in strength, we may explore their differences; for example, are induced relevance bonds stronger when they connect consistently evaluated elements than when they connect inconsistently evaluated elements?

The simplest consistent and inconsistent situations may be represented graphically as shown in Figures 1 and 2, respectively. In these figures, C^ represents specific status characteristic i, C represents the directly task relevant characteristic, T represents the group task, p' and o are the social objects of p's orientation, and the parenthesized valuation signs indicate the evaluation of particular status states or task elements. The relation of possession is represented by the placement of a particular evaluated state of characteristic C^ (i.e., a status element) next to its holder, p' or o; relevance is represented by a line connecting an element with each other element to which it is directly relevant.

FIGURE 1 ABOUT HERE

FIGURE 2 ABOUT HERE

Figure 1a shows the consistent situation before the operation of the spread of relevance process; Figure 1b shows the changes that are made in the relevance structure as a result of the operation of the process. Figure 2a shows the inconsistent situation as it initially appears; if we assume that the same relevance process operates in both the consistent and inconsistent situations, then Figure 2b shows the inconsistent situation as it would appear after the spread of relevance.

In this study, we first must evaluate whether the spread of relevance process operates in inconsistent situations (i.e., whether situation 2a will come to look like situation 2b). Since we believe that actors will use whatever information is available to them in situations regardless of its relation to other information they have, we obviously predict that the process will operate in inconsistent situations.

Given the operation of the process, we then must evaluate whether the process operates in the same way, or to the same degree, in both consistent and inconsistent situations. As noted above, the theory assumes nothing about the effect of inconsistency on this process. One obvious possibility is that inconsistency has no <u>effect</u> on the operation of the process, in which case the spread of relevance assumption is satisfactory as it stands, and we may have increased confidence in its generality. However, since the theory takes no stand on this issue it is also obviously possible that inconsistency of paths <u>does</u> affect the strength of the induced bond. There are at least two different ways in which inconsistency might have an effect. First, induced bonds, that are inconsistent may be weaker than induced bonds that are consistent. Second, induced bonds that are inconsistent may be stronger than induced bonds that are consistent.

Although substantive explanations can be suggested for each of these possibilities, only the first two seem intuitively likely and reasonable. First is the hypothesis that inconsistent and consistent paths are operated on by the relevance process identically. Second is the hypothesis that inconsistency weakens the induced bond. Therefore, the prime alternatives we shall consider are limited to these two, no effect and weakening effect, although we can look for evidence for any others.

In summary, the theoretical predictions we make are:

1) If a path of task relevance exists in S^*, then direct task relevance bonds will be established from indirectly related elements to the appropriate task outcomes, whether the induced bond links consistent or inconsistent elements.

2a) If a path of inconsistently evaluated elements induces an inconsistent direct task relevance bond, then the strength of the induced bond will be similar to the strength of a consistent bond induced from a consistent path (i.e., inconsistency has no effect); or

2b) If a path of inconsistently evaluated elements induces an inconsistent direct task relevance bond, then the strength of the induced bond will be less than the strength of a consistent bond induced from a consistent path (i.e., inconsistency has a weakening effect).

THE EXPERIMENT

In order to evaluate these predictions, a two-phase experiment (identified to the subjects as a single experiment) was conducted. In the first phase, a specific status characteristic was established and

subjects were assigned differentiated states of this characteristic. The second phase made use of the standardized experimental situation mentioned above; this situation involves a decision-making task, which allows measurement of each subject's likelihood of accepting influence, which in turn serves as an indicator of the subject's power and prestige position in the group.

Four conditions were created. The first two were baseline conditions: Condition One, in which a path of relevance was established between the positive state of the specific status characteristic and the positive state of the characteristic directly relevant to the task; and Condition Two, in which a path was established between the negative state of the specific status characteristic and the negative state of the characteristic directly relevant to the task. The other two conditions were experimental: Condition Three, in which a path of relevance was established between the positive state of the specific status characteristic and the negative state of the characteristic directly relevant to the task; and Condition Four, in which a path of relevance was established between the negative state of the specific status characteristic and the positive state of the characteristic directly relevant to the task.

Two subjects participated in each experimental group. On arrival, each subject was taken separately to the experimental room to

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begin the first phase of the experiment. The subjects were then told:

> Well, I see that both of you boys are the same age and at the same grade level in school, and are from two different parochial high schools in this area.

This information (only roughly accurate; see description of the subject pool below) was designed to eliminate as far as possible the activation

of any status characteristics (e.g., age, educational level) in the situation other than those we manipulated. Since the subjects were not permitted to actually see one another throughout the experiment, the potential for activation of extraneous characteristics was minimal.

Each subject was given a paper and pencil test, designed to establish a fictional ability called Meaning Insight Ability, constituting the specific status characteristic in the situation. The test was said to measure "meaning insight," a basic ability of the individual. The test consists of word association problems, which require matching an English word with the supposed phonetic spellings of two non-English words from a language unknown to the subjects. For each of the 20 test items, the subjects were asked to determine which of the two foreign language words had the same meaning as the English word. Previous experience with the test has demonstrated that it is believable enough to capture the subjects' commitment, yet ambiguous enough that the experimenter can induce a subject's belief and confidence in almost any score. Consequently, it is quite useful for assigning differentiated states of a specific status characteristic.

One of the experimenters then "scored" the tests and reported the "scores" to the subjects publicly. In each group, the subjects were randomly assigned to two cases, referred to as (+-) (i.e., high self expectation, low other expectation) and (-+) (i.e., low self expectation, high other expectation). Subjects assigned to the (+-) case were told they got 18 correct answers out of a possible 20, while those assigned to the (-+) case were told they got 7 correct out of a possible 20. These scores were then compared with a set of "national standards." The scores of the (+-) subjects were interpreted as reflecting a high degree of ability, and those of the (-+) subjects as reflecting a low

degree of ability. After reporting of scores and the completion of questionnaires, the subjects began the second phase of the study.

In the second phase, which utilized the standardized experimental situation, the subjects were told they would be working as a team on a group decision-making task called "Contrast Sensitivity." The task is a perceptual judgment task involving stimuli projected on slides. Each slide consists of two rectangular patterns arranged vertically, each pattern composed of smaller black and white rectangles. Subjects were told that they had to decide for each slide whether the top or the bottom pattern contained the greater area of white. The task had been

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previously standardized to ensure that it would be ambiguous.

The decision-making procedure entailed the following: -irst, on each slide each subject gave an initial opinion of the correct answer, was allowed to see the other person's initial opinion, and then made a private final decision. The exchange of initial opinions was presented to the subjects as a means of improving the team score (i.e., the sum of each individual's total number of "correct" answers). To facilitate this presentation, "individual" and "team scoring standards" for the Contrast Sensitivity task were given to the subjects.

In fact, the exchange of initial opinions was controlled. The subjects communicated by means of the panels of an interaction control machine (ICOM). Each subject's panel allows him to indicate his initial choice by pressing one of two buttons, provides lights indicating his partner's initial choice, and finally allows him to indicate his final decision by means of a second set of buttons. One of the experimenters operates the ICOM from another room, so that a subject may be made to see an agreeing or disagreeing initial choice from his partner, regardless of his partner's actual initial choice.

At this point, the subjects were told that it was important for them to have as much information about each other as possible. The experimental manipulation (i.e., of consistent or inconsistent relevance bonds) was then introduced. In the consistent conditions, subjects were told:

> The reason you took the Meaning Insight Ability test in Phase I of today's study is because social scientists have learned that Meaning Insight is one of those abilities which is actually directly related to Contrast Sensitivity. That is, previous studies have repeatedly shown that individuals who have high Meaning Insight Ability usually have high Contrast Sensitivity. Similarly, individuals who have low Meaning Insight Ability usually have low Contrast Sensitivity.
>
> At this stage in our research, we are not completely certain why Meaning Insight and Contrast Sensitivity are directly related. However, we believe these two abilities are probably not distinct. That is, they require capacities to make discriminations that involve similar and complementary thought processes.

In the inconsistent conditions, subjects were told:

> The reason you took the Meaning Insight Ability test in Phase I of today's study is because social scientists have learned that Meaning Insight is one of those abilities which is actually inversely related to Contrast Sensitivity. That is, previous studies have repeatedly shown that individuals who have low Meaning Insight Ability usually have high Contrast Sensitivity. Similarly, individuals who have high Meaning Insight Ability usually have low Contrast Sensitivity.

...At this stage in our research, we are not completely certaii why Meaning Insight and Contrast Sensitivity are inversely related. However, we believe these two abilities are probably distinct. That is, they require capacities to make discriminations that involve different and competing thought processes.

Four conditions were therefore created. First, subjects who had been assigned to the (+-) case in Phase I and who were told that Meaning Insight was directly related to Contrast Sensitivity were placed in Condition One, the Consistent (+-)(+-) condition. Those assigned to the (-+) case in Phase I and told that Meaning Insight and Contrast Sensitivity were directly related were placed in Condition Two, the Consistent (-+)(-+) condition. These two conditions constituted the baseline conditions, and provide a means of evaluating the strength of the sprea of relevance along consistent paths, enabling comparisons with the rela tive strength of the effect along inconsistent paths. Second, subjects assigned to (+-) case in Phase I and told that Meaning Insight and Contrast Sensitivity were inversely related were placed in Condition Three the Inconsistent (+-)(-+) condition. Finally, those assigned the (-+) state in Phase I and told that Meaning Insight and Contrast Sensitivity were inversely related were placed in Condition Four, the Inconsistent (-+)(+-) condition.

The experiment ran for 25 trials, of which 20 were "critical," in the sense that subjects found themselves "disagreeing" with their partners on their initial opinions. The remaining five trials were agreement trials, introduced to increase the credibility of the experiment. These five trials were randomly distributed through the series, with one agreement occurring in each block of five trials.

Following the completion of the trials, subjects were asked to fill out a second questionnaire, and then were interviewed individually. The questionnaires and interviews were designed primarily to elicit information relevant to questions of suspicion and to success of the manipulations. At the conclusion of the interview, each subject was given a full explanation of the purposes of the study, including an account of all the deceptions involved.

One hundred twenty four subjects participated in the experiment. All were students in local private high schools, who had volunteered to participate, and who were paid for their participation. The data obtained from 25 subjects were not included in the analysis of the results because of violations of one or more of the initial conditions of the experiment, as determined by the interview. The criteria for classification of subjects in expectation states experiments have been standardized, and are generally as follows:

1. Suspicions Subjects are eliminated from the sample if they become suspicious of any of the experimental manipulations. This category also includes subjects who had previously read about deception experiments and thought the present experiment was similar to them, and subjects who had heard from others that the study involved deception.

2. Extraneous basis of differentiation between subjects: If any particular set of circumstances provided a subject with a basis of differentiation between himself and the other apart from the experimental manipulations, the subject was eliminated from the sample. (For example, subjects were eliminated if they were previously acquainted with one another.

3. Failure of experimental manipulationss Subjects who were unable to understand the instructions, were confused about the

experiment, or did not understand and accept crucial parts of the instructions (such as the relation between leaning Insight and Contrast Sensitivity presented in Phase II) were also eliminated from the sample

It should be noted that, in all cases, clear, consistent, and strong evidence of any of these violations of conditions was required before a subject could be excluded (see Cook, Cronkite and Wagner, 1974 for a complete presentation of the criteria for classification of subjects).

PREDICTIONS AND RESULTS

The primary indicator in this experiment of an individual's powe and prestige position is his probability of accepting influence, given disagreement with another. The indicator is operationally defined as the proportion of "stay-responses," or P(S), a subject makes over the 20 critical trials. A "stay-response" occurs when a subject's final decision agrees with his initial decision; otherwise, he has made a change response.

Our primary prediction with regard to the baseline conditions is relatively straightforward. Since paths of task relevance connect the specific status characteristic, Meaning Insight, with the task, we predict that the spread of relevance process will operate, and that, as a consequence, Meaning Insight will serve as the basis for the formation of performance expectations such that these expectations will be consistent with the distribution of evaluations on the specific status characteristic. These performance expectations will then determine the power and prestige position of the subjects. Consequently, we expect subjects in Condition One, C(+-)(+-), to have a higher stay-response rate than those in Condition Two, C(-+)(-+); in other words, we predict that P^S) > P_2(S).

This prediction is quite clearly supported. First, as shown in the first two rows of Table 1, the proportion of stay-responses in the C(h—) (h—) condition is 0.730; the proportion of stay-responses in the C(-+)(-+) condition is 0.491. The difference is quite large. Table 2 shows the results of the Mann-Whitney U nonparametric test applied to these two conditions; the results of this test indicate that the probability of obtaining these values by chance alone is considerably less than .001.

TABLE 1 ABOUT HERE

TABLE 2 ABOUT HERE

There are two alternative sets of predictions with regard to the experimental conditions and the possible effects of inconsistency of paths in determining the power and prestige order in the group. The first alternative is that inconsistent paths induce bonds of the same strength as bonds induced by consistent paths (No Inconsistency Effect). The second alternative is that inconsistent paths induce bonds weaker than those induced by consistent paths (Inconsistency Effect). In the No Inconsistency Effect case, since paths of relevance connect Meaning Insight inconsistently with the task, we predict that expectations will be formed such that these expectations will be <u>inconsistent</u> with the distribution of evaluations on the specific status characteristic. Power and prestige ordering in the group is then determined by these formed performance expectations. More specifically, if there is no inconsistency effect, then a bond is induced which makes C^-) relevant to T(+), and C_1(+) relevant to T(-). That is, if the actor possesses C^-), he expects to be successful at the task; if he possesses C_1(+), he does not expect to be successful. Therefore, C_1(-) and C_1(+) become information signals of high and low ability at the task, respectively.

As a result, the actor forms task expectations for self and other that are inconsistent with the initial evaluation of the states of the specific status characteristic. Consequently, we would expect subjects in the I(-+) (+-) condition to have a stay-response rate similar to that of subjects in the C(+-)(+-) condition; also, we would expect subjects in the I(+-)(-+) condition to have stay-response rates similar to those of subjects in the C(-+)(-+) condition; finally, we would expect subjects in the I(-+)(+-) condition to have a higher stay-response rate than those in the I (+-)(-+) condition. More succinctly, if inconsistency has no effect, we predict that $P_1(S) = P_4(S)$, $P_2(S) = P_3(S)$, and $P_4(S) > P_3(S)$.

In the Inconsistency Effect case, the spread of relevance proces is assumed to continue to operate; however, the resulting formation of expectations (and hence the determination of power and prestige ordering in the group) is less homogeneous. First, we assume that, if there is an inconsistency effect, then for some actors the bond is formed (i.e., between $C_1(-)$ and T(+) or between $C_1(+)$ and T(-)); for others no bond is formed. For those for whom the bond is formed, the formatio of performance expectations, the determination of power and prestige position, and thus the actor's P(S), are similar to that previously described (i.e., in the No Inconsistency Effect case). However, for those for whom the bond is not formed, either of two processes may occur: (1) since they have no information on which to base differentiated expectations, actors retain undefined or neutral expectations for self and other; hence their relative power and prestige positions and P(S) values will be similar (in between a high value and a low value); or (2) since the specific status characteristic itself provides performance information, actors form expectations consistent with the

original evaluations of that characteristic; hence their power and prestige positions and P(S) values are differentiated but in reverse order to those of the first group (i.e., for whom the bond is formed). Consequently, if there is an inconsistency effect, then subjects in the inconsistent conditions will be made up of at least two of the three types above. Whichever set of types occurs, the mean P(S) in the condition where subjects possess the $C_1(-)$ state should be lowered, and the mean P(S) in the condition where subjects possess the $C_1(+)$ state should be raised. In other words, the mean stay-response rate in the I(-+)(+-) condition should be lower than in the C(+-)(+-) condition, and the mean stay-response rate in the I(+-)(-+) condition should be higher than in the C (-+)(-+) condition. More strictly, if inconsistenc has a moderate effect, we predict that $P_1(S) > P_4(S)$ and $P_2(S) < P_3(S)$.

Finally, we note that, if inconsistency has a very powerful effect, we assume that the bond is induced for no one in an inconsistent situation. If subjects then retained neutral status expectations, we would predict that $P_4(S) = P_3(S)$; if subjects formed expectations consistent with the distribution of evaluations on the specific status characteristic, we would predict that P^(S) > $P_4(S)$.

Tables 1 and 2 present data relevant to these predictions. First, we note that the P(S) in the I(-+)(+-) condition is 0.686. This proportion is somewhat smaller than the first alternative of No Consistency Effect would suggest (0.730 from tiie C(+-)(+-) condition); however, the one-tailed Mann-Whitney U statistic comparing these two conditions shows that the probability of obtaining these values by chance if the alternative hypothesis is that $P_1(S) > P_4(S)$ is about .10, The results of this test indicate support for the first alternative, at least in the sense that it cannot be rejected. Second, we see that the

P(S) in the I(+-)(-+) condition is slightly less than in the C(-+)(-+) condition (0.467 vs. 0.491). This result clearly conflicts with the prediction given by the second alternative of an Inconsistency Effect. In addition, the one-tailed Mann-Whitney U between these two conditions indicates that the probability of obtaining this result by chance is about .22 if the alternative hypothesis is that $P_2(S) <$ Again, the hypothesis of No Inconsistency Effect must be preferred over its primary alternative. Finally, we may compare $P_4(S)$ with P^fS). We see that the proportion of stay-responses in the I(-+)(+-) condition is much greater than the proportion in the I(+-)(-+) condition. Again the result is compatible with the predictions of the No Inconsistency Effect alternative, and severely contradicts the Inconsistency Effect alternatives (particularly if the effect of inconsistency is to be quite powerful). As Table 2 shows, the probability that this result would occur by chance alone is considerably less than .001.

INTERPRETATIONS AND COMMENTS

We first conclude that, as predicted by the theory, the spread of relevance process does operate in both types of situations, those involving consistent paths of relevance and those involving inconsistent paths, since both predictions concerning this process are directly supported (i.e., P^S) > P_2 (S) and P_4 (S) > P_3 (S)) . These results are also consistent with Berger, Fisek and Freese (1970)."''''"

In addition, we conclude that inconsistency of paths does not affect the strength of induced bonds, since all three predictions basec on the first alternative (No Inconsistency Effect) are to be preferred over those based on the second alternative (Inconsistency Effect). This conclusion, however, is subject to some reservations. First,

while the alternative of a simple inconsistency effect is clearly rejected, the alternative of no effect is not unambiguously supported. It is, for example, possible that inconsistency decreases the strength or probability of induction of bonds linking elements along a path composed primarily of positive elements, while inconsistency increases the strength or probability of induction of bonds linking elements along a path composed primarily of negative elements (i.e., a high status person is less likely to introduce conflicting status information into the situation than is a low status person; a high status person could only lower his status by including more negative status elements, while a lo[T] status person could only raise his status by including more positive status elements). Such an alternative, while theoretically more complex, is consistent with the data (although it cannot be preferred simply on the basis of the results achieved thus far). Nevertheless, sucl. an alternative cannot be ruled out, inasmuch as no single study can provide sufficient evidence to totally exclude these alternatives. A related limitation on our conclusions is based on a statistical artifact. Predictions of equality can be evaluated only as null hypotheses, not as alternative hypotheses in the statistical sense; as a consequence, evaluation of such predictions is more difficult. While null hypotheses can be "rejected," they cannot be "supported," only "not rejected." Hence, the only way to develop firm confidence in such a prediction is to "not reject" it many times. Obviously, then, firm cor fidence in the hypothesis of No Inconsistency Effect cannot be achieve- on the basis of the results of this study alone. Rather, we can only say that it is to be preferred against the alternatives presented on the basis of the data gathered thus far.

One direction for further research, then, would be to attempt tc replicate this finding in a number of separate studies. It would also

be useful to test for an inconsistency effect in situations involving longer paths of task relevance, particularly when the distribution of positively and negatively evah'atod elements is less "balanced." For examni^. ^y be the case that the longer the path of relevance across which a bond is induced, the greater the effect of the inconsistency of the path on the strength of the induced bond. In such a case, it would then be important to determine whether paths composed of equal numbers of positive and negative elements influence the effect of inconsistency more, less, or about the same as paths composed of grossly unequal numbers of positive and negative elements.

SUMMARY

Over the past ten years, a body of theory and related empirical research has begun to emerge that provides detailed information about the operation of status organizing processes in social interaction. In general, this work specifies the constituents of status situations, posits the processes by which these elements organize and define situations, and predicts behavior patterns on the basis of these definitions of status situations.

This study has been concerned primarily with one of the processes by which status elements become organized so as to define the situation: the spread of relevance process. Specifically, the study evaluates whether, given a path of task relevance linking a specific status characteristic with a task outcome, the inconsistency of the path affects the strength of the direct task relevance bond induced by that path. Using a standardized experimental procedure, we tested (1) the prediction that spread of relevance would occur in both inconsistent and consistent situations, and (2) alternative predictions that inconsistent

paths would induce bonds equal in strength to bonds induced by consistent paths. The results of the study indicate that the spread of relevance process does operate in both inconsistent and consistent situations, and provides support for the argument that the inconsistency of paths of task relevance has no effect on the strength of direct task relevance bonds induced by them.

This result's importance is that it allows us to extend the spread of relevance process (and its constituent notions, particularly the idea of a path of task relevance) to more complex status organizing situations. It suggests that, regardless of the evaluative composition of the set of status elements to be organized, the spread of relevance process operates so as to complete the status definition or organization as much as possible by inducing equally strong bonds of direct task relevance with status elements which were previously only indirectly related to the task.

Further research should be conducted, both to increase confidence in the results of this study and to extend the applicability of the spread of relevance process still further, particularly to cover longer, less balanced paths of relevance.

FOOTNOTES

1 Simmel (1908; in Wolff, 1950; 307) suggested that "the first condition of having to deal with somebody at all is to know with whom one has to deal" (italics in original). However, we cannot kno[1] somebody completely as an individual. Rather, "we conceive of each man—and this is a fact which has a specific effect upon our practical behavior toward him—as being the human type which is suggested by his individuality. We think of him in terms not only of his singularity but also in terms of a general category" (Simmel, 1908; in Wolff, 1959s 343). Park (1928) presented a conception of interaction in which an individual, on encountering another individual,, (1) classifies him in terms of general status categories, (2) attributes to him characteristics associated with his categories, and (3) organizes his conduct toward him on the basis of such stereotypical assumptions.

2 This work, stemming originally from the research of Bales and his associates, is summarized in Berger, Conner and Fisek (1974s 5-9).

3 A status characteristic is diffuse if it involves more than one set of expectation states specific to clearly defined situations, and, in addition, at least one set of general expectation states, applicable to a broad range of situations. Race and sex, for example, are typically diffuse status characteristics.

4 A status characteristic is specific if it involves a single set of expectation states specific to a clearly defined situation. For example, in many situations, mathematical ability may be regarded as a specific status characteristic.

5 The observable power and prestige order (OPPO) of a group encompasses the distribution of each of four related components of interaction? (1) opportunities to perform, called action opportunities, (2) problem solving attempts, (3) communicated evaluations of performances, and (4) attempted influence of one group member by another. Some aspect of the OPPO (or a behavior derivable from it) serves as a dependent variable in all of the studies cited in this paper.

6 It is important to remember that nothing in the theory assumes any natural superiority of the group member with an expectation advantage. The theory is concerned rather with the status organizing process, given that group members possess states of salient characteristics, whatever the sources or legitimacy of the evaluations of those states. For example, the theory would account equally as well for the expectation advantage and greater influence of a woman over a man in a situation where "female" is more highly evaluated than "male," as it would for the more culturally prevalent situation.

7 Note that, if a path of relevance is inconsistent, then the induced bond may be consistent or inconsistent. We are concerned with the latter case. We believe that, if the spread of relevance operates along inconsistent paths when the bond to be induced is inconsistent, it probably also operates along inconsistent paths when the induced bond is consistent. We are not prepared to argue that the opposite is true as well. We therefore are concerned with the inconsistent path case that represents a more severe test of the operation of the spread of relevance process.

8 In groups where only one subject had been scheduled or the second subject did not show up, a confederate was used. As should be seen from the description of the experiment, the use of a confederate

should have no effect on the.realjsubject's behavior in the situation, since he had no way of describing him other than in terms with which we provided him (i.e., in terms of salient specific status characteristics).

9 The actual probability of choosing either alternative is approximately 0.5 for each slide (Ofshe, 1967).

10 Despite careful screening and elaborate precautions, these types of problems cannot be completely eliminated. For example, in one case in this experiment, two subjects who went to different schools knew each other from their athletic endeavors and arrived together at the laboratory. Under such circumstances, it is nearly impossible to eliminate the extraneous bases of differentiation such prior familiarity may induce.

11 We should note also another result consistent with past evidence. The last column of Table 1 reveals that the variance of the number of stay-responses is considerably higher for the cases where the direct relevance bond is (-+) than it is for the corresponding (+-) cases. This effect has also been observed by Camilleri and Berger (1967), Berger and Fisek (1970), and Berger, Fisek and Freese (1970). While we have no rigorous explanation for this phenomenon, we believe the high variances obtained in these cases probably indicate that situations involving negative self-evaluations are inherently unstable.

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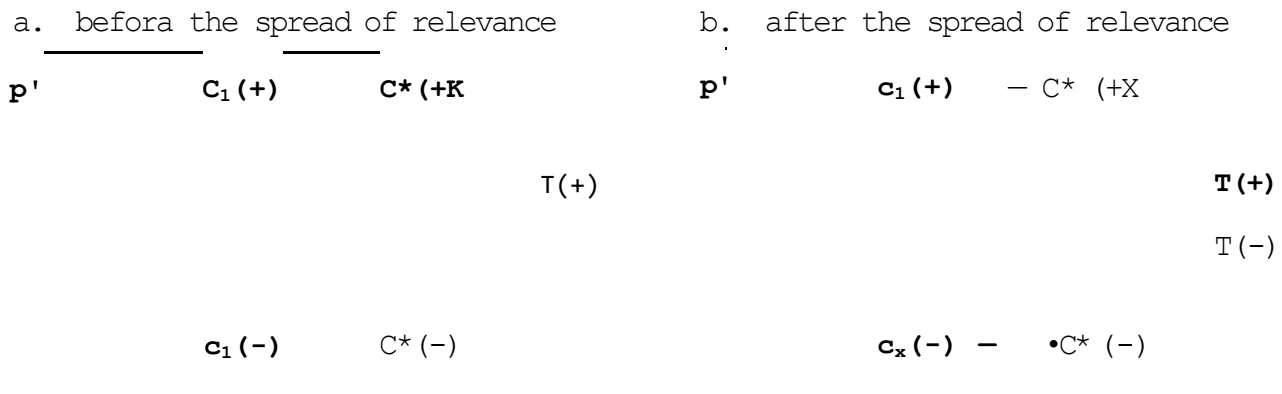
FIGURE ONE

GRAPH REPRESENTATION OF THE OPERATION

OF THE SPREAD OF RELEVANCE PROCESS Hi THE CONSISTENT SITUATION

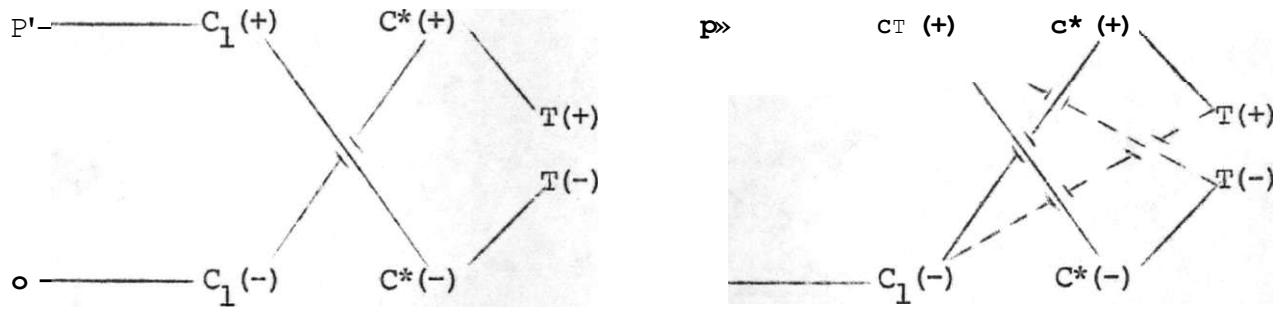


P[1] possesses C,(+) which is relevant to C*(+) which is relevant to T(+).
5) possesses C, (-) which is relevant to C*(-) which is relevant to T(-) „
Each path is composed of similarly (i.e. consistently) evaluated elements (C , C*, T).
The dotted liae indicates the direct task relevance bond induced by the spread of relevance.

FIGURE TWO

GRAPH REPRESENTATION OF THE OPERATION

OF THE SPREAD OF RELEVANCE PROCESS IN THE INCONSISTENT SITUATION



P' possesses C, (+) which is relevant to C*(-) which is relevant to T(-).
0 possesses C,(-) which is relevant to C*(+) which is relevant to T(+).
Each patil is composed of dissimilarly (i.e. inconsistently) evaluated elements (C,, C*, T).
The dotted line indicates the direct task relevance bond induced by the spread of relevance.

TABLE ONE

PROPORTION, MEM AND VARIANCE OF NIIEER OF STAY RESPONSES PER SUBJECT

Condition	Number of Subjects	P(S)	Stay-responses Mean	Variance
1. C (H—) (+—)	25	0.730	14.6	4.2
2. C(—+) (—+)	23	0.491	9.3	10.2
3. I(H—) (—+)	23	0.467	9.3	10.6
4. !(—+) (+—)	23	0.686	13.7	5.0

TABLE TWO

RESULTS OF HANN-VMITWEY U TESTS (QiE-TAILED)

APPLIED IX) DIFFEI^CES BETWEEN CONDITIONS

Case Tested	Test Statistics U	Z	prob-value
C(+—) (+—) vs. C(—+) (—+)	55	4.827	« .001
C(+—) (+—) vs. I(—+) (+—)	279	1.278	.1006
C(—+) (—+) vs. I(+—) (—+)	230	0.763	.2227
!(—+) (+—) vs. !(+—) (—+)	91	4.395	« .001