ELIMINATING THE EFFECTS OF A STATUS CHARACTERISTIC *

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The theory and experiment reported here follow directly and cumulatively from previous research that concerned itself with the effects of status characteristics in small groups (Berger, Cohen, and Zelditch, 1966; Cohen, Berger, and Zelditch, forthcoming; Freese, 1969; Moore, 1968). This previous research offered an explanation for the emergence of observable power and prestige orders in small task-focused groups when members of those groups were discriminated by some diffuse status characteristic, such as age, sex, race, occupation, and so forth. By observable power and prestige order was meant the distribution of action opportunities, performance outputs, evaluations of those outputs, and influence in the group (Berger and Connor, 1969).

Berger, Cohen, and Zelditch (1966) proposed a theory asserting that if a diffuse status characteristic were the only basis of discrimination between actors, and if the actors were forced to differentiate themselves in terms of relative power and prestige, then because of global performance expectations associated with the status characteristic --expectations such as, "Men are smarter than women"--the actors would differentiate on the basis of who ranked high or low on the characteristic. The most important notion in their theory concerned the generalization of performance expectations from the status characteristic to a group problem-solving situation to which the characteristic is _not initially relevant_. The assumptions of their theory specified the process by which this generalization was believed to take place, and predicted the observable power and prestige order in the task situation to be a function of those generalized performance expectations.

A similar formulation was proposed by Moore (1968), and experimental observations taken by him using prestige of educational affiliations as a general status characteristic, tended to conform relevant predictions from both of these formulations. Building upon Moore's experimental results Cohen, Berger, and Zelditch (forthcoming) conducted a more elaborate test designed to isolate the steps in this generalization process. Using Air Force rank as a status characteristic and using relative influence rates as an indicator of observable power and prestige, they found that Air Force non-Coms were more likely to be influenced by officers than by enlisted men whether or not the task was directly related to the status characteristic.

Both of these investigations provided a demonstration of and an explanation for the generalization effect. Both formulations specified a set of sufficient conditions under which beliefs associated with status would generalize to new situations resulting in an observable power and prestige order consistent with differentiation on the status characteristic. To determine if the conditions specified by these formulations were not only sufficient but were also necessary, Freese (1969) constructed a formulation that differed significantly from its predecessors only in that the initial basis of discrimination between the actors was not a diffuse status characteristic but was instead a specific performance characteristic. By specific performance characteristics were meant such abilities as the ability to speak well in public, to compose music, or to throw a football accurately. It was felt that if the limited information conveyed by possession of a specific performance characteristic would also generalize in a similar manner to determine an observable power and prestige order in a new task situation, then a conceptual tool might be available that would permit us to specify conditions when a diffuse status characteristic would <u>not</u> generalize to a new task situation.

The formulation proposed by Freese (1969) asserted that expectations associated with a specific performance characteristic would determine an observable power and prestige order in a new task situation if the characteristic were directly related to at least one other specific performance characteristic. Otherwise, the generalization process was postulated to be less likely to occur. This formulation was clearly supported by experimental observations which utilized the same measure of influence as an indicator of observable power and prestige that had been used by Moore (1968), and Cohen, Berger, and Zelditch (forthcoming).

From these investigations we can draw the following set of conclusions: (1) Under specified task conditions, an observable power and prestige order will emerge in a small, task-oriented group if: (a) the actors are discriminated by some diffuse status characteristic; or (b) the actors are discriminated by two or more directly related specific performance characteristics; (2) In either case members in the group will occupy positions in the observable power and prestige order that are consistent with their state of the characteristic that discriminates members of the group; (3) In either case the characteristic that initially discriminates the actors, though not initially related to the task on which observable power and prestige is measured, nevertheless seem to generalize to the initially unrelated task situation.

But how does this generalization process occur when actors are discriminated by a diffuse status characteristic *and* two or more directly related specific performance characteristics? In particular, how does this generalization occur when an actor is high on the status characteristic but low on the performance characteristics, or low on the status characteristic but high on the performance characteristic? We shall now present a theory that deals with this case. Our purpose is to specify a set of sufficient conditions that, when operable, eliminates the generalizing effect of the status characteristic. To develop this formulation requires us to analyze and define some of our central concepts and to specify a set of initial conditions under which the formulation is expected to apply.

No theory can be said to apply to all situations. It is therefore incumbent upon us to specify when the theory applies and when it doesn't. The formulation about to be developed is asserted to apply when the following set of conditions is met. This set of scope conditions is identical to the set of task conditions stipulated by Berger, Cohen, and Zelditch (1966) and Freese (1969). Taken as a whole, we will refer to these conditions as "task situation S" or simply "S".

Two actors, p and o, are interacting with respect to each other. We shall view the situation from the point of view of only one of the actors, p, and we shall treat the other elements in the situation, including o, as objects of orientation for p. P may also be an object of orientation to himself, herein designated by p'. P must perform a task in conjunction with o; that is, the task must be "collective" in that it is both necessary and legitimate for p to take o's behavior into account. The task has two outcomes, "success" and "failure", and we assume p is motivated to achieve the success outcome. In this sense p is "task-focused". Further we assume there is some performance characteristic, C, that is specifically instrumental to successful task performance. We assume that p has no knowledge of his performance level on C with respect to o. It is appropriate at this point to define precisely what is meant by the term "specific performance characteristic".

Definition 1. Specific Performance Characteristic (C).

A specific performance characteristic, C, is any characteristic of an actor for which it is the case that

(1) there are at least two states, such that there is associated with each state a different probability of successful task performance, and

(2) the states of the characteristic are differentially evaluated.

For purposes of simplifying the analysis, we will analyze a specific performance characteristic as if it had only two states, one high and one low. That is, p believes there is a state, C_a, which will contribute to the success outcome of the task relative to another state C_b, which will contribute to the failure outcome. P may possess either the high state of C or the low state of C with respect to o. The comparison is relative. If p possesses the high state of C, then he simply believes he has a higher probability of performing the task successfully than o. If p were to choose a different o for comparison he might believe himself less likely to perform the task well. We refer to these relative beliefs about the probability of successful task performance as specific performance expectations, and we assert that specific performance expectations are in one-to-one correspondence with states of a specific performance characteristic. Since states of C are instrumental to the performance of the task, it is assumed that p attaches differential value to each state; that is, he feels it is more desirable to possess the high state of C than the low state of C.

We wish now to introduce the first of two elements that will discriminate p' and o in C from p's point of view, and it is given that these are the only bases of discrimination between the actors. The first element is a general performance characteristic, which was the basis of discrimination between the actors in the research reported by Freese (1969). It is defined as follows:

Definition 2. General Performance Characteristic (G).

> A general performance characteristic G is any characteristic of an actor for which it is the case that: There are at least two states, such that each state consists only of a set of symmetrically related states of specific performance characteristics having the same evaluation.

By set is meant a collection of at least two or more states of characteristics. By symmetrically related, or symmetrically relevant, is meant that possession of any one member of the set implies the expected possession, from p's point of view, of all members of the set. Consider, for example, a characteristic like musical ability. If musical ability were a general performance characteristic, the set associated with the high state of G might contain the high state of ability to play the piano and the high state of ability to read music. Our requirement of "symmetrically related" means that the high state of ability to read music implies the high state of ability to play the piano and vice versa. We will say more about this example below. Since a general performance characteristic consists of two or more specific performance characteristics, by inference the states of G are differentially evaluated and those states have associated with them different probabilities of successful task performance. As in the case with C, we will analyze G as if it had only two states, one having a positive evaluation and the other having a negative evaluation.

The second element is S which we assume discriminates the actors is a diffuse status characteristic, which we will also analyze as if it had only two states. If race were the characteristic, the two states might be white and non-white. A diffuse status characteristic is defined as follows:

Definition 3. Diffuse Status Characteristic (D).

A diffuse status characteristic D is any characteristic of an actor for which it is the case that:

(1) the states of D are differentially evaluated,

(2) to each state, x, of D there corresponds a distinct set of Σ_x of specifically associated, evaluated, states of characteristics, and

(3) to each state, x, of D there corresponds a distinct general expectation state GES_x, having the same evaluation as the state D_x.

Two comments need be made at this point. First, the concept of a general expectation state refers to a single, global evaluation of a actor, and it has been argued to imply evaluations of moral worth as well as evaluations of performance capabilities (Zelditch, Berger, and Cohen, 1966). The concept of Boston Brahmin, for example, conveys different overall evaluation that the concept of industrial worker. From Definition 2 it should be clear that no such all-encompassing evaluation is attached to a general performance characteristic. Second, γ of D, the set of specific performance characteristics that is associated with D, does not contain elements that are given to be symmetrically related to each other and does not contain elements all of which are given to have the same evaluation. This set, therefore, is a decidedly different set of specific performance characteristics than that attached to a general performance characteristic. We should elaborate and discuss these differences with some illustrations, since these differences provide the basis for the formulation we are about to present.

A diffuse status characteristic conveys a significant amount of information about a person. Knowing an actor's state of D seems to activate an entire set of beliefs about that actor. Some white employers, for example, believe Negro employees are not as intelligent, not as dependable, not as industrious, but better able to withstand high temperatures than white employees (Wilson and Gilmore, 1943). Notice that the set of performance characteristics attributed to Negroes in this case is "mixed"; that is, not all of these characteristics have the same evaluation: An industrial employer will positively evaluate an employee who can withstand high temperatures, but will negatively evaluate the other characteristics. Furthermore, knowing that an individual has one of these characteristics does not permit any inferences about whether or not he has any of the other characteristics. The set of specific performance characteristics attributed to the status characteristic race is a loose conglomeration at best. But this is not the case with the set of characteristics that constitute a general performance characteristic.

What does it mean to say that someone is a good musician, and precisely what are the qualities associated with good musicianship? We argue that to be a good musician is not to possess simply one ability, it is to possess a composite of several abilities. Insofar as musical ability is a composite of several abilities, it provides a good deal of information about a person. An individual who has perfect pitch, can compose music, can play the piano, can play the guitar, and has a knowledge of musical theory we would be inclined to call a good musician. If he lacked one of those abilities, we might still be inclined to call him a good musician. And though we do not know he would be a good violinist, we would be inclined to predict success for him if he gave that task some effort. If he possessed only one of those abilities we listed, however, we might not be inclined to predict success for him at a similar task, indeed we would probably not call him a good musician. But knowing that there is a _set_ of specific performance characteristics at which he excels, and knowing that the members of that set are _related_ to each other, and knowing that _other_ characteristics or abilities can be related to the members of that set (if he takes up the violin, for example), we are much more likely to generalize to other tasks that are similar to musical tasks.

A general performance characteristic, then, is an "open" set;

that is, other characteristics can be added to it when an actor feels it is warranted. We believe the set of task conditions we have established here will result in the actor deciding it is more warranted to consider expanding the set G than the set of D. We will now formulate our problem precisely and propose a set of assumptions which describe this process.

We have two actors, p and o, interacting under a set of task conditions already specified. These actors are discriminated only by states of a general performance characteristic (G) and states of a diffuse status characteristic (D). In addition, as one of the task conditions there is a specific performance characteristic (C) on which the actors are as yet undiscriminated which is instrumental to successful task performance. The relations between G, D and C may be stated simply: Each of these elements is given to be neither associated with nor dissociated from the other elements at the outset; in other words, whether G, D and C are related to each other or not is initially unknown.

Since p and o are discriminated by both states of G and states of D, there are four possible ways in which the actors may differ. (1) P may have the high state of D and the high state of G; (2) P may have the high state of D and the low state of G; (3) P may have the low state of D and the high state of G; (4) P may have the low state of D and the low state of G. Our concern here will be only with cases 2 and 3, where p is high on D and low on G, or low on D and high on G. The problem to be answered by the formulation and the experiment is, how does p assign states of C to himself and o by generalizing from the states of the D and G characteristics he and o possess? If and when such generalization occurs p will have differentiated himself into either a high position or a low position in the observable power and prestige order with respect to o in task situation S.

There are three means by which states of C could be generalized from states of D and G: (1) P could assign states of C on the basis of only the states of D he and o possess; (2) P could assign states of C on the basis of only the states of G he and o possess; (3) P could assign states of C on the basis of <u>both</u> the states of D and G he and o possess. We want now to present a set of assumptions which argues that p will assign states of C on the basis of the states of G he and o possess, and not on the basis of states of D and not on the basis of some combination of D and G.

Assumption 1. (Activation).

> If D and G are the only social bases of discrimination between p' and o in S, then D and G are each <u>activated</u> in S.

To "activate" a characteristic means to cognitively consider its possible relevance to the situation at hand. It should not surprise us that an actor in an ambiguous situation would conjure up what information is available to him and think about whether or not it applies to his situation. The only information available to p is the states of D and G that p' and o possess, and these states are inconsistent with each other. P must think about this, but merely to be aware of the differences between p' and o on these characteristics does not mean that p will decide all of this information is relevant to task situation S in which he finds himself. We argue he will decide only some of it is relevant. Definition 4 tells what we mean by "relevant". Assumption 2.1 and 2.2 specify a set of conditions for the formation of relevance between states of G and states of C from p's point of view. If these assumptions are true, then p will not decide that states of D are relevant to states of C and he will not decide that states of both D and G are relevant to states of C.

Definition 4. Relevance:

An element e_i is relevant to an element e_j if it is the case that: If x_i possesses e_i, then x_i is expected to possess e_j.

Assumption 2.1. (Relevance).

If elements e_i and e_j can become relevant to element e_k, then both e_i and e_j will become relevant to e_k only if:

(1) e_i and e_j are relevant to each other, or

(2) e_i and e_j have the same evaluation, or

(3) either e_i or e_j has no sub-elements.

The phrase "can become relevant to" in the assumption implies that a relevance relation has not yet been formed between two elements but that such a relation can potentially be formed, though it need not be. The term "sub-elements" refers to the constituent parts of the element in question. G, for example, consists by definition of two or more constituent parts or sub-elements; a single specific performance characteristic has only one constituent part or no sub-elements; D has multiple sub-elements because of the set χ of specific characteristics associated with it.

Assumption 2.1 is a very general proposition whose utility is not restricted to the formulation presented here. We employ it in the present context to rule out the possibility of some "combination effect" between D and G in the determination of the observable power and prestige order. There should be no combination effect because the three necessary conditions for combining stipulated by Assumption 2.1 are not present in task situation S. From p's point of view, D and G are not relevant to each other, they do not have the same evaluation, and each has multiple sub-elements. Therefore, only D or G but not both can become relevant to C if the assumption is correct. (It should be noted that Assumption 2.1 does not rule out the possibility that D and G can be made relevant by some external source, such as an experimenter, even if D and G have different evaluations. Our formulation deals with the process that operates on an actor in situation S in the absence of external intervention or constraint.)

Given that only one of the discriminating characteristics, D or G, will become relevant to C, the question now becomes, which one? It may be the case that one of the discriminating characteristics is more similar to C than the other. We use Definition 5 to explicate a concept of the similarity of characteristics.

Definition 5. Similarity.

An element e_i is similar to an element e_j if and only if e_i is not excluded from being symmetrically related to e_j and from having the same evaluation as e_j.

As a corollary, which follows directly from Definition 5, we have

Corollary: If either e_i or e_j consists of sub-elements, then e_i is similar to e_j if and only if all of those sub-elements are symmetrically related and have the same evaluation.

Since the element, e_j, consisting of sub-elements with differing evaluations precludes e_i from having the same evaluation as e_j (that is, it can have the same evaluation as some elements of e_j but not of others), e_i is then excluded from being similar to e_j from the last part of Definition 5. Since by definition G consists of sub-elements with the same evaluation, whereas D does not, we have the basis for using similarity as a mechanism with G, but not with D.

G and γ of D are each sets of specific performance characteristics and each of these sets is potentially expandable: Other characteristics can be added to each set, such as our unassigned task characteristic C. We will not argue that C actually becomes a member of either set, but we do believe if one set consists of characteristics that are consistently evaluated and symmetrically related, it is "easier" for that set to be expanded to include any undefined characteristic that is not believed to be excluded; and this process of "set expansion" should be facilitated even further if symmetrical relations and consistent evaluations are maintained. Now in the context of our present problem, C is similar to G but not similar to D because γ of D is not given to have the special properties we attribute to G. How do these properties make a difference? To be absent-minded, intellectual, and impractical does not mean that an actor is a professor, and we would be reluctant to conclude that he would excel at logical reasoning. But to be able to run fast, to have excellent motor coordination, to be able to withstand physical duress, and to be in prime physical condition *does* mean an actor is a good athlete, and we could reasonably expect him to excel at tennis even if he had not yet learned that game.

We have shown with Assumption 2.1 that D and G will not combine to determine observable power and prestige in S. D alone or G alone must generalize to the task situation. We believe the similarity of the task characteristic C to the performance characteristic G is sufficient to explain why the status characteristic will not generalize. It will not generalize because, unlike G, it does not have the two properties we believe are the strongest inducements to initiate the expectation-generalization process: a consistent evaluation and a symmetrical relation of its component parts.

Assumption 2.2 (Relevance).

If D and G are activated in S, and if C is similar to G, then G becomes relevant to C.

Note carefully that while symmetry is a property of G, and C is not excluded from being symmetrically related to G, Assumption 2.2 states *only* that G becomes relevant to C, *not* that C also becomes relevant to G. Symmetry is not assumed to be a property of the G-C relation: the only requirement is that G is *potentially* symmetrically relevant to C, that is, that C is *not excluded* from being a member of the G set. Assumption 2.2 does *not* say that C becomes a member. The fact that it can become a member we believe facilitates the generalization process. However, it is sufficient for our purposes to specify only when an asymmetrical relation obtains between G and C, for once

G is relevant to C, even if only asymmetrically, performance expectations for C should be assigned in a manner consistent with p's state of G.

Assumption 3. (Consistent Assignment).

> If G is relevant to C, then p will assign states of C to himself and o in a manner that is consistent with their respective states of G.

Assumption 3 asserts that p will assign the state of C to himself and o that has the same evaluation as the state of G they each possess. So if p' possesses the positively evaluated state of G, for example, and o possesses the negatively evaluated state, then p will decide that p' possesses the positively evaluated state of C and o possesses the negatively evaluated state of C.

Having assigned states of C in the task situation, p now has specific performance expectations for himself and o; that is, he has decided who is likely to perform better at the task. If p has decided who is more likely to perform better at the task, and if his views are shared by o, then it is reasonable to expect that the actor for whom the higher expectations are held might have more opportunities to present his ideas, be more likely to be consulted for suggestions, be more likely to have his proposals for the solution of the task favorably evaluated, and be more likely to exercise influence in the group. This distribution of action opportunities, performance outputs, evaluations of performance, and influence exercised, taken as a whole, we refer to as the observable power and prestige order of the group. It seems reasonable to assume that relative positions in the observable power and prestige order of the group would be a function of the expectations that have been assigned for performance on the group task.

Assumption 4. (Power and Prestige).

> If p has assigned states of C to himself and o, and, therefore, has specific performance expectations for p' and o, then the observable power and prestige order is a direct function of those specific performance expectations.

If Assumption 4 is correct, then the observable power and prestige order in the group should be a function of the expectations for performance p has assigned for himself and o at the task. If Assumption 3 is correct, those performance expectations should be assigned in a manner consistent with the manner in which p' and o are discriminated on the general performance characteristic. If Assumptions 2.1 and 2.2 are correct, those performance expectations should be a function only of p' and o's states of the general performance characteristic and not their states of the diffuse status characteristic, because the task characteristic, C, is similar to G and not similar to D. If Assumption 1 is correct, p has the option of deciding that G or D or both or neither provide him with information relevant to determining which performance expectations are appropriate.

An Experimental Test

To provide a test of the main predictions of this formulation is simple and straightforward. We require two person groups and a design having six conditions. Depending upon to which condition a subject is randomly assigned, he will find that, in relation to his partner, he possesses: (1) the high state of a D; (2) the low state of a D; (3) the high state of a G; (4) the low state of a G; (5) the high state of a D and the low state of a G; (6) the low state of a D and the high state of a G. We further require a task situation that meets the conditions specified that will permit us to observe if the subjects differentiate themselves in terms of relative power and prestige. It is appropriate to describe the general features of this experimental situation.[1]

Berger and Conner (1969) identify four components of an observable power and prestige order, but in order to facilitate greater experimental control only one of these components is operationalized in this experimental situation, namely influence.[2] This is done in the following way.

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[1] This is a standardized experimental situation that has been employed with considerable success to observe differentiation in relative power and prestige. See Berger and Conner (1969).

[2] This standardized experimental situation is structured so that the other components of the observable power and prestige order can be experimentally controlled. The distribution of action opportunities, performance outputs, and communicated evaluations are not allowed to vary so that the distribution of influence may be studied as dependent behavior. If these other components were studied as dependent behavior, however, by Assumption 4 of the theory they should give similar results for the distribution of observable power and prestige, since these various components are assumed to be intercorrelated (Berger and Conner, 1969).

Two subjects are seated in a room such that they cannot see each other. Their task is to view a series of slides, each of which has some property about which the subject must make a binary judgment. Each subject makes a preliminary choice which is communicated via a machine to his partner, and then after a short delay makes a final choice which is not communicated. The subjects are told by the host experimenter that ability to make correct decisions on these slides depends upon their possessing a specific perceptual ability. Since he may make only one of two choices on each slide with respect to the property in question, the subject must find himself either agreeing with his partner or disagreeing with his partner after each makes an initial choice. The device on which the subject indicates his choice is constructed such that an assistant experimenter in an adjoining room may systematically control the information about initial choices that subjects exchange. In fact, throughout the course of a large number of slide presentations, the subject finds himself in nearly continuous disagreement with his partner about the correct answer to the slide when they make their initial choices. Faced with a disagreement on each initial choice and faced with the requirement to make a final decision each time, the subject must either stay with his initial choice or change his initial choice such that it agrees with his partner's. If he changes his initial choice it is assumed that he has been influenced by his partner; if he does not change his initial choice it is assumed he has not been influenced. A subject may either be influenced or not influenced, then, on any given trial. Since the experiment consists of n trials, there will be for each subject a ratio of the number of times he was influenced to the total number of times he could have been influenced. This ratio is averaged across all subjects in a given experimental condition, yielding an overall rate for which subjects in the condition accepted or rejected influence attempts. The proportion of times subjects reject influence attempts is interpreted as the probability of a Self- or S-resolution, which constitutes the indicator for the development of a power and prestige order.

Using this measure of influence as our indicator of relative power and prestige, we may now state the predictions implied by our theory. We should point out that, strictly speaking, our formulation can make predictions only for Conditions 5 and 6. Conditions 1 and 2 are controls for this experiment and are predicted by the theories of Berger, Cohen and Zelditch (1966) and Moore (1968). Conditions 3 and 4 are also controls and are predicted by the formulation of Freese (1969). Assumptions 2.1 and 2.2 of our theory predict the status characteristics should have no effect in determining the probability of an S-resolution, when both a G and a D are activated. To check the accuracy of this prediction we must compare subjects who have the high state of D and the low state of G (DH-GL) with both sets of subjects who have only a high state of D (DH) or a low state of G (GL); and we must compare subjects who have the low state of D and the high state of G (DL-GH) with both sets of subjects who have only the low state of D (DL) or the high state of G (GH). In order to make meaningful comparisons to test our formulation we must first observe in terms of our measure of rejecting influence attempts that:

(1) DH is greater than DL, and

(2) GH is greater than GL

The predictions our theory makes for the experimental conditions are as follows:

(1) DH-GL does not differ from GL, and

(2) DL-GH does not differ from GH.

We will now describe the experimental situation for subjects in the DH-GL and DL-GH conditions, used to test the above predictions.

Subjects were junior college females between the ages of 18 and 21. Each subject upon arriving was escorted to an isolated room where she was informed by the experimenter that she would be taking part in two studies. This first study would require her to take two tests. These tests were supposedly measures of two abilities (in fact, fictitious) known as "Meaning Insight Ability" and "Contrast Sensitivity". The Meaning Insight test consisted of matching an English word with one of two words from an obscure foreign language. The Contrast Sensitivity test required the subject to discriminate a geometrical figure from a set of four geometrical figures on the criterion "Which figure doesn't belong with the other three?" Prior to taking each test the subject read a page of instructions which explained the "ability" she was about to be tested on. Each set of instructions informed the subject that both of these abilities were highly correlated with each other, but that neither ability was necessarily related to general intelligence, nor to mathematical, artistic or lingual skills. After completing both tests, each subject was taken by the experimenter to another building where she was presented to a second experimenter who informed her that this was where the second study would take place.

The "second" study was conducted with the use of closed circuit television. Each subject had a television monitor, camera, and microphone present in her individual room. To maintain a standardized presentation of instructions and to stimulate a "live" situation, instructions were presented on video tape. Each subject was informed that the second study would require her to interact with a partner. The introduction of this partner at the beginning of the second study constituted the initial manipulation of the status characteristic. The characteristic we chose to manipulate was age, and it was manipulated in two ways: (1) The partner appeared on the monitor, so that she was visible to the subject, and (2) the partner stated her age and other information indicative of her age. The subject herself was then put on camera and was asked the same questions by the taped experimenter that the partner had been asked. (We had no difficulty getting live subjects to respond to taped questions.)

In fact the "partner" too was on video tape. Subjects in the high status conditions found themselves interacting with an eleven year old girl, who, when asked to state what she liked to do in her spare time, replied: "I like to play with dolls and I like to play with my brother's electric train." Subjects in the low status conditions found themselves interacting with a woman 38 years old, who, in her spare time, liked to attend movies and listen to music. Since our objective was to break down the effects of a status differential, we deliberately tried to establish as big a status differential as possible with these manipulations. We succeeded.

As soon as each subject and her "partner" had introduced themselves, another experimenter "interrupted", again on video tape, to announce that he had now computed the scores for both subjects on the tests they had taken in the first study, and he proceeded to read the scores. When the "partner's" scores were read, the partner appeared on the subject's screen; when the subject's scores were read, the subject appeared on her own screen. Subjects with the eleven year old partner found, to their dismay, that the partner had scored 22 and 23 on the tests, and that they themselves had only scored 4 and 5. The experimenter emphasized with reference to a scoring chart that the high scores were in the superior bracket which only 5 per cent of all persons tested managed to achieve; and that the low scores were in the poor bracket, also a category in which only 5 per cent of all persons scored. Subjects with the 38 year old partner were given exactly the same information by the same taped experimenter, except that in this case the subjects had the high scores and the partners had the low scores. This concluded our manipulation of the general performance characteristic.

Both the age and performance manipulations were conducted prior to the subject's having been informed of her task in the second study. Once the manipulation of the test scores was completed no mention was again made either of the tests or the abilities they were purported to measure. The age differential, however, was "reactivated" during the course of subsequent instructions in that both the subject and her partner were again put on camera. Thus the subject was once again reminded of the age of her partner.

In Conditions 1 and 2, we required that subjects be discriminated from their partner only by age. Therefore, these subjects were given no tests of ability and the performance manipulation was simply deleted. In Conditions 3 and 4, we required that subjects be discriminated only by their test performances. Ideally, in such a situation we would want no status information to be present. But to make Conditions 3 and 4 comparable to the other conditions, we were required to show each subject a partner on the television screen. In the absence of status information, we felt that many subjects would pick up status cues from their undefined partner and draw their own conclusions. It was preferable, we reasoned, for all subjects in these conditions to have the same status information. Therefore, we conducted a status-equal manipulation. This manipulation consisted of the taped partner identifying herself as 19 years of age and from the same school as the subject. This manipulation was inserted at the same point in the instructions as were the status manipulations of the other conditions.[3]

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[3] If we had not done a status-equal manipulation, we would have run the additional risk of subjects, who were from local junior colleges, assuming that their partner was a student at the university where the research was being conducted. This would have introduced another status variable into the experiment.

Having done a status-equal manipulation in Conditions 3 and 4, we could also have done a performance-equal manipulation in Conditions 1 and 2, where the subjects differed only on status. However, our theory argues that subjects will perceive and act upon a similarity between the general performance characteristic and the task and hence if subjects are equal on the performance characteristic they may not differentiate on the task in terms of the status characteristic. Yet we must establish just such a status differential on the task to test our formulation.

The design that was finally adopted is the optimal one for mutual objectives of eliminating contamination in the data and testing the most relevant predictions of the theory.

After the performance and/or the initial status manipulations were performed, each subject was instructed on the task that she was now to perform collectively with her partner. The task consisted of the subject deciding whether a solid white bar superimposed on a still photograph was, in the context of the photograph, greater or less than a distance in feet given her by the experimenter. Subjects were told that getting correct answers depended upon possessing an ability known as "Spatial Judgment Ability". Each subject was told that she would be given a Spatial Judgment Ability score at the end of the session. To assist the subject in getting correct answers, the subject was instructed that she would be allowed to make two choices on each slide, an initial choice and a final decision. The initial choices would not count in determining the score, but would be communicated to her partner, and her partner's choices would be communicated to her. Subjects were encouraged to take their partner's advice if they judged it would be helpful. Subjects made their choices and exchanged them with their partner on a machine that showed the subjects' initial choice, the partners' initial choice, and the subjects' final decision. This was the only form of communication between the subject and her partner while performing the task.

Forty slides were presented on video tape to each subject. The machine on which the subjects made and exchanged their choices was constructed such that the experimenter was able to control the feedback each subject received from her partner. On thirty-two of the forty trials each subject found that her partner disagreed with her initial choice. By a pre-arranged pattern, eight agreement trials were inserted to allay subjects' suspicion of the disagreements. Our measure of influence consisted of counting the number of times the subject changed her initial choice on the 32 critical trials.

After the trials were completed, each subject was interviewed to determine whether or not she was suspicious of the procedures and whether or not she understood the instructions. The purposes and exact nature of the experiment were then explained in detail and each subject was paid for her participation.

Results

A total of 145 subjects were run through the experiment, but 25 of these were either suspicious of the experimental procedures or failed to understand the instructions they were given. Since these subjects failed to meet the conditions necessary to test the theory, the theory cannot be said to apply to their behavior, and therefore they were excluded from the analysis. This left an N of 20 subjects, randomly assigned, for each of the six cells. The p(S) reported in Table I is the proportion of stay-responses, that is the proportion of times subjects in each condition stayed with their own initial choice in the face of a disagreement from their partner. This proportion is the empirical estimate of the probability of a self-resolution. Table I gives the p(S), the mean number of stay-responses, and the variances about the mean number of stay-responses, by condition.

TABLE I ABOUT HERE

TABLE I

	Condition	p(S)	Mean Number S-responses	Variance	N
1.	DH	.74	23.6	10.9	20
2.	DL	.57	18.2	8.0	20
3.	GH	.70	22.3	8.5	20
4.	GL	.59	19.0	37.1	20
5.	DH-GL	.59	18.9	20.9	20
6.	DL-GH	.69	22.2	6.2	20

An examination of Table I of the proportion of stay-responses for each condition shows that the predictions of the theory are confirmed. We find a p(S) of .74 for the DH condition and .57 for the DL condition, and for the GH and GL conditions we have a p(S) of .70 and .59 respectively. With these control conditions as a basis of comparison, we find in the experimental conditions that the p(S) for the DH-GL condition is .59 and the p(S) for the DL-GH condition is .69. It can be seen that the values for the GL and DH-GL conditions and the values for the GH and DL-GH conditions do not differ. Table II shows the results of the one-tailed Mann-Whitney U-tests performed on these differences.

TABLE II ABOUT HERE

An examination of the variances shows nothing unusual for the DH-DL, GH, and DL-GH conditions. None of these variances is high and all are in the same range. However, the variance for the GL condition is 37.1 and the variance for the DH-GL condition is 20.9. Each of these variances is substantially higher than the variances for the other conditions. Since it is possible these high variances could reflect bi-modality, we present in Figures I and II histograms for the GL and DH-GL conditions. The issue of bi-modality is particularly significant in the DH-GL and the DL-GH conditions because the presence of bi-modality would suggest that some subjects are responding according to their state of D while others are responding according to their state of G. The low variance in the DL-GH condition rules out this possibility; it remains to be seen whether bi-modality is present in the DH-GL condition.

TABLE II

MANN-WHITNEY U-TESTS FOR DIFFERENCES BETWEEN CONDITIONS

CONDITION	P ≤
DH vs. DL	.001
GH vs. GL	.025
DH-GL vs. DL-GH	.01

FIGURES I AND II ABOUT HERE

Although the number of cases in each condition is too small to permit clear-cut inferences about the exact shape of the distributions, both Figures I and II show no evidence that the distributions for the GL and DH-GL conditions are bi-modal. Both distributions appear to be flat. In the absence of any evidence for bi-modality, the high variance in the GL condition is particularly curious, since this condition, along with the GH condition, is a replication of the experimental treatment reported by Freese (1969). Freese (1969) found no difference in the variances between the highs and lows, and both of those variances reported by him were low (8.1 and 8.0, respectively, for N's of 22 with 440 critical trials).

Discussion and Interpretation.

The theory predicted there would be no effects of the diffuse status characteristic in the determination of the observable power and prestige order. Only one experimental outcome would have been completely consistent with this prediction, and in fact this is the outcome we observed. The p(S) value in Table I show that the probability of rejecting influence attempts was a function of that state of the general performance characteristic subjects possessed, and even when subjects also possessed an opposite state of a diffuse status characteristic the probability of rejecting influence attempts did not change. Subjects could have differentiated in the observable power and prestige order on the basis of the status characteristic, in which case the probability of rejecting influence attempts for the DL-GH and DH-GL conditions should have been

FIGURE I

FREQUENCY DISTRIBUTION OF NUMBER OF S RESPONSES FOR GL CONDITION

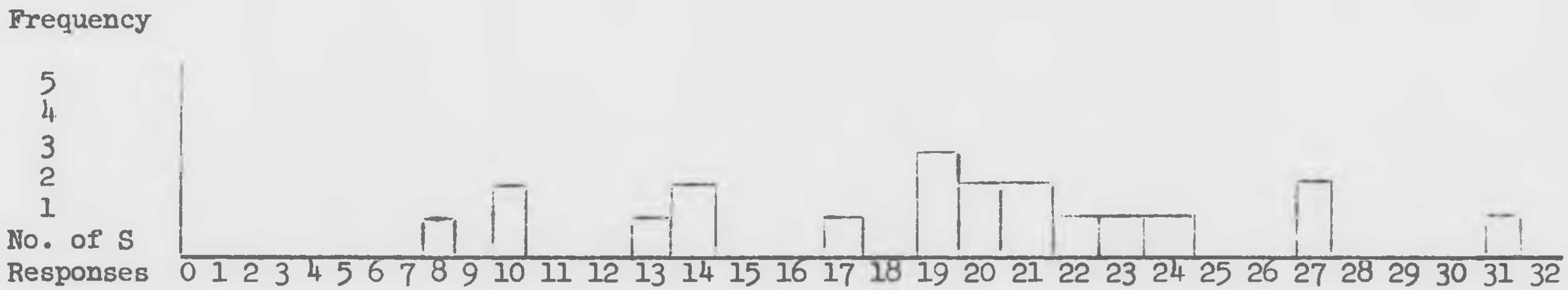
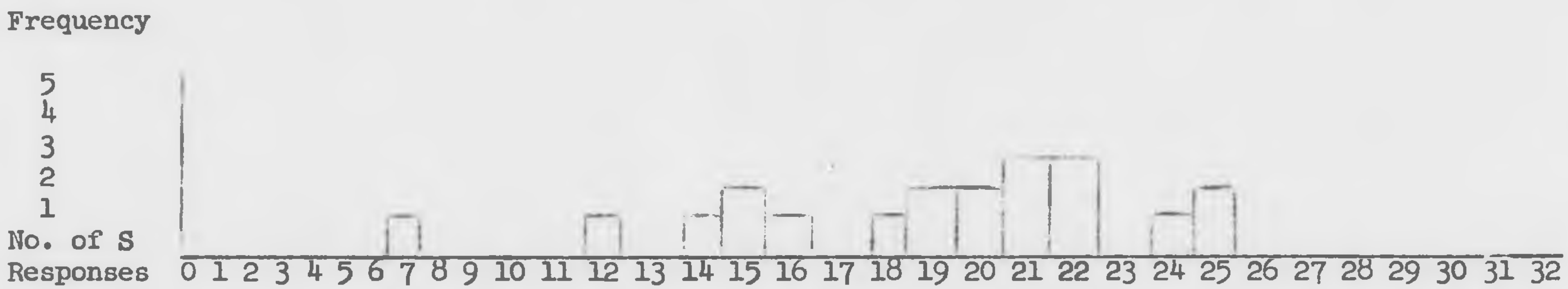


FIGURE II

FREQUENCY DISTRIBUTION OF NUMBER OF S RESPONSES FOR THE DH-GL CONDITIONS



similar to the probabilities for the DL and DH conditions respectively; or, subjects could have differentiated on the basis of a combination of the status characteristic with the performance characteristic, in which case we could have observed p(S) values in the experimental conditions anywhere between the values of the control conditions. We conclude the data show no effects of the status characteristic whatsoever, and that positions in the observable power and prestige order are solely a function of the general performance characteristic.

The absence of any effect of the diffuse status characteristic, however, either as the sole determiner of the observable power and prestige order or in combination with G, requires us to consider two alternative interpretations of our results. The first interpretation is that our experimental procedures made G so salient that subjects' perceptions of D were totally suppressed. The second alternative is that the task in the influence phase of the experiment was perceived as merely a continuation of the tasks used to manipulate G. Both of these interpretations posit what from the point of view of our theory are experimental artifacts; hence, it is necessary to examine these alternatives and to weigh them against our theory as an explanation for our failure to find any effects of the status characteristic.

Let us consider the salience agrument first. To argue that G was the only salient characteristic in the influence phase of the experiment is to argue that our experimental procedures failed to eliminate that possibility. It might be well then to review our experimental procedures.

For the manipulation of G subjects were given two tests of performance at the outset of the experiment <u>prior to even knowing they</u>

had a partner. Their scores were not reported to them at this time. Upon completing the tests, they were led to what was described to them as a second and different experiment. This second experiment took place in a different building and with different research assistants acting as experimenters. In this second phase subjects were introduced over television to their "partner" with whom they were told they should collaborate and with whom they exchanged status information. All of the instructions in this phase were presented via closed circuit television. After the exchange of status information in the introduction, the camera switched to an unidentified experimenter who interrupted the instructions to inform subjects of their own and their partner's scores on the first two tests. During this manipulation, subjects were again shown to each other on the TV screen. The instructions for the second phase then resumed, and during a subsequent demonstration of the use of the equipment subjects were again shown their partner on the TV screen, for the third and last time.

The procedures, then, were designed to disconnect the test-taking and the characteristics that were presumably being tested from the interaction experiment. Subjects were alone in the test-taking phase, different experimenters were used, and the two phases were conducted in separate buildings. It is important to note that during the interaction phase information about the diffuse status characteristic was introduced prior to, during, and subsequent to the manipulation of the test scores comprising G. Thus neither a principle of primacy nor a principle of recency can be used to argue that the G characteristic was more salient. Furthermore, the manipulation of D was part and parcel of the second phase, since in this phase subjects were supposed to interact and cooperate with each other. The manipulations of G, on the other hand, was an interruption to that phase, divorced entirely from its context, an irrelevant aside that could easily have been forgotten. On these grounds it is difficult to argue that G was any more salient than D, nor is there any evidence that the experimenter communicated to the subjects that they should "pay more attention to G rather than D."

While it is possible that none of our devices succeeded, and an inadvertent experimental bias accounts for the results, such an interpretation is at best _ad hoc_. In the absence of any **clear evidence** supporting this _ad hoc_ interpretation, the safest course is to prefer our theoretical explanation for the absence of an effect of the status characteristic. Specifically, we refer to Assumptions 2.1 and 2.2 It should be recalled that Assumption 2.1 states three necessary conditions for combining to occur: (1) two elements are relevant to each other, or (2) two elements have the same evaluation, or, (3) either element has no sub-elements. None of these conditions were present in our experimental manipulations and therefore combining was not to be expected.[4] Assumption 2.1 therefore appears to be the best available interpretation to explain why combining was not found.

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[4] These three conditions, however, were present in an experiment reported by Berger and Fisek (1970) in which a combination effect was found. Thus both our own data and the Berger and Fisek results are consistent with Assumption 2.1.

Assumption 2.2 explains why G alone, and not D alone, determined observable power and prestige: G was similar to the task characteristic, in the sense of Definition 5, and D was not.

The second alternative interpretation argues that because the task in the interaction phase of the experiment can be perceived as a test and because tests were used in the first phase of the experiment to allow the manipulation of G, we automatically established a similarity between G and the task characteristic. Now, our theory argues that subjects generalize states of G to the task situation because they perceive a similarity between G and the task characteristic. But it is possible to question whether our results are in fact due to this process of generalizing states of similar characteristics or whether our results are due to the artifact th t we were using "tests". It could be, although we have no positive evidence to suggest it, that "testing situations" unintentionally establish a similarity between G and the task characteristic rather than allowing the subjects to draw their own conclusions. Both G and the task required specific abilities with which the subjects were previously unacquainted, but subjects were aware that they were going to receive a score for their performance at the interaction task, and therefore subjects could have interpreted the task as a test just like the tests that constituted G.

It would be fruitless to analyze how much similarity between these characteristics is "too much" similarity. Suffice it to say that the theory is asserted not to hold when the characteristics are dissociated--when there are definite beliefs that the characteristics are not relevant to one another--but on the other hand the theory is trivial or at best untested if the characteristics are initially associated in the minds of the subjects or if the association results from experimenter cues that force such an association. The best evidence we can cite to rule out the "artifact" interpretation of the similarity of our experimental characteristics is not to appeal to the subtle differences in meaning communicated by our experimental instructions, but rather is to appeal to alternative and independent evidence that also has bearing on the theory.

Cohen, et al (1971) and Roper (1971) report the results of some experiments in which pairs of Negro and white boys of the same age were manipulated on a G characteristic and were then required to perform a collective task. In this experiment blacks were manipulated high on the G characteristic and, although whites were not directly manipulated, by our definition which implies the relativity of self-other expectations we can infer that whites were in a low-high state. Subjects were given no information on whether the specific performance characteristics comprising G were related or not related to the task characteristic. What were these characteristics? G consisted of building a radio set and teaching someone else to build a radio set. The task characteristic on which measures of observable power and prestige were taken consisted of the subjects playing a cooperative game. There can be no question here that the choice of characteristics unintentionally established a priori some similarity between states of G and states of the task characteristic; clearly no such experimental artifact was present. Yet Cohen, et al (1971) and Roper (1971) report that the manipulation of G had a powerful effect upon subsequent task interaction. On several measures of power and prestige differences their results, taken as a whole, are consistent with and predicted by our formulation.

Given the choice of experimental characteristics by Cohen, et al (1971) and Roper (1971) and given their subsequent results, it is difficult to adopt any interpretation other than that their subjects perceived states of G to be similar to states of C on their own authority and drew the behavioral consequences predicted by our theory. If such a process in fact occurred in the Cohen, et al (1971) and Roper (1971) experiments, this lends credence to the contention that the same process occurred in our experiment. To the extent that we have independent knowledge that the process we have formulated does operate under the conditions specified, we are justified in rejecting--particularly in the absence of any positive evidence--a post hoc interpretation of experimental artifact for our own results: the preponderance of the evidence is against it. Of course, we do not claim that because the generalization process worked for Cohen, et al (1971) and Roper (1971) it therefore must have worked in our experiment. Rather, we must choose between two alternatives, that the generalization process worked as specified by the theory or that our results are a function of experimental artifacts. Since it is always possible to suppose after the fact that results were a function of experimental artifacts; since we have no positive evidence to suggest such artifacts were present in our experiment; since our results were predicted by the theory; and since other investigators have found independent evidence to support the theory, we reject the hypothesis that the generalization process was induced by an experimenter bias.

Finally, we wish to briefly consider the interpretation that our results are unreliable. In both the GL and DH-GL conditions we observed variances that were extremely high in comparison with the other conditions. We have already pointed out that Figures I and II show no evidence for bi-modality. We frankly confess to having no acceptable interpretation to explain why, out of six conditions, two conditions should show high variance. The common denominator between these two conditions is that subjects were manipulated low on a general performance characteristic, and the obvious suggestion is that there might be something peculiar about our test population when forced to differentiate low on such a characteristic. However, this interpretation quickly dissolves when we consider that the GL condition is a replication, with minor procedural variations, of the experimental treatment reported by Freese (1969). Freese (1969) found no unusually high variances for low subjects using the same test population that we used, and furthermore he reports the same degree of differentiation of influence at the same task. In view of this we are inclined to reject the interpretation that our p(S) values are unreliable due to a peculiar distribution or some unknown characteristic of the sample.

We have considered three alternative interpretations to our results: (1) the results were a function of greater salience of the G characteristic; (s) the results were a function of an artificial similarity of the manipulation and interaction phases of the experiment as "testing situations"; (3) the results were a function of an accidental distribution of population characteristics and so are unreliable. We reject all three interpretations and conclude that the results of our experiment lend strong support for the theory.

We are particularly encouraged by these results in view of the extent to which the status generalization phenomenon permeates social behavior. Anyone who has ever possessed the low state of a diffuse status characteristic--such as blacks, women, youth, and others--has been a victim of the halo effect of such a characteristic. To infer that a given black is lazy just because he is black, or that any given woman is illogical just because she is female, or that any given youth is inexperienced just because he is young is to perpetuate at least a disservice and at best an indignity. Yet, apparently under certain conditions, just such a halo effect is a normal reaction of individuals to that set of conditions. The problem from a theoretical point of view is to specify an additional set of conditions that, when operative, intervene to eliminate that halo effect. The theory presented here is a significant step in that direction, but we have yet to specify a set of conditions that is sufficient to eliminate the halo effect *per se*. We will have succeeded in doing that only when we can show that when actors are discriminated *only* by some status characteristic they will *not* generalize to a new situation. This would require us to specify an additional set of conditions to the already-existing theory of Berger, Cohen, and Zelditch (1966), which describes that process. A successful test of such a formulation should show no differences, in terms of the data reported in the present experiment, between the DH and DL conditions. We are currently engaged in efforts to specify the appropriate set of theoretical conditions.

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