Multi-Characteristic Status Situations and the Determination of Power and Prestige Orders*

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Multi-Characteristic Status Situations and the Determination of Power and Prestige Orders

In this paper we consider how performance expectations are formed and power and prestige orders are determined in multi-characteristic status situations. This problem is an extension of earlier studies that have demonstrated the importance of previously established status characteristics in determining the power and prestige order that emerges in small task-oriented groups. (See, for example, Torrance, 1957; Katz, Goldston and Benjamin, 1958.) Research specifically addressed to this problem has shown that task behavior of group members who are differentiated on a single status characteristic or evaluative dimension is directly related to their relative states of this characteristic. That is, group members who possess the more highly evaluated state of the differentiating characteristic will tend to exercise greater influence on the task outcomes than those members who possess the less highly evaluated state of the characteristic. This phenomenon has been observed when the differentiating characteristic is of a diffuse nature, such as educational level and military rank, even if this characteristic is <u>not</u> initially relevant to the group's task (Moore, 1968; Cohen, Berger and Zelditch, forthcoming), and also when the differentiating characteristic is a specific status characteristic instrumental to the group's task (Berger and Conner, 1969).

Berger and Conner (1969) explain these results by arguing that members of task-oriented groups come to develop through time stable conceptions of the performance capacities of each other. These conceptions, or performance expectations, are beliefs about the relative task abilities of individuals that the members of the group come to hold. Typically these expectations will

be differentiated; that is, they will be conceptions of inequalities in the task abilities of the group members. If differentiated, these performance expectations legitimate and determine differences in the power and prestige positions that develop in the group: inequalities in opportunities to perform, in performance rates, in evaluations of members' contributions, and in the relative influence of the different members on the decisions of the group. In this sense the group's ordering of power and prestige positions is said to be a function of a structure of performance expectations its members come to hold. In the situation where the members of a task group are differentiated in terms of a diffuse status characteristic (age, sex, occupation, etc.), such differentiation provides a basis in terms of which these performance expectations are formed. That is, distinctions in task expectations come to coincide with the evaluational distinctions on the status characteristic (Berger, Cohen and Zelditch, 1966). In the case where the members of a task group are differentiated in terms of a specific status characteristic, task expectations are provided by the performance conceptions already associated with the characteristic. Thus, through their relation to performance expectations, differentiating status characteristics determine the ordering of power and prestige positions in the task-oriented group.*

Research along these lines leads us to the problem of multi-characteristic status differentiation. This is the situation in which the members of the task-oriented group are differentiated on one or more status characteristics, each of which is instrumental to their task, and each of which carries

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*For an application of the expectation argument to the situation where the members of the task-oriented group are not initially differentiated in terms of a specific or diffuse status characteristic, see Berger, Conner and McKeown (1969) and Fisek (1969).

information about expected performance capacities. The determination of power and prestige orders appears to be straightforward when the distribution of status characteristics is consistent; that is, when each member of the group possesses similarly evaluated states of the characteristics. In this case the power and prestige order of the group should be a direct function of the distribution of the states of the characteristics. The relationship is less clear, however, when the distribution of status characteristics is inconsistent. Such a situation arises when at least one member of the group possesses dissimilarly evaluated states of the characteristics, and these are providing incongruent or contradictory performance information, e.g., that an individual has "high" performance capacities and at the same time "low" performance capacities with respect to the group's task. Here we may ask how group members cognitively define such inconsistencies, and what are the consequences of such definitions for their behavior in the group.*

In a recent study we attempted to discover the mode of cognitive definition in such a situation (Berger and Fisek, 1970). Two modes, a "balancing" mechanism and a "combining" mechanism, were postulated, and an experiment was designed to discriminate between the two processes. The results provided support for the combining mechanism argument.

Further consideration of this experiment suggested that the design employed may have limited the import of the results to a special case, and it

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*It should be noted that our theoretical problem ties in with another line of research that has long been of considerable interest to sociologists, that concerned with status equilibration or congruency (Lenski, 1956; Homans, 1961; Zelditch and Anderson, 1966). Traditionally, however, this research has focused on diffuse status characteristics and on the operation of these characteristics in more general settings than those of immediate interest to us. In this connection it should also be noted that Sampson (1963) has presented a theoretical framework for analyzing status congruencies that has many similarities to our own approach.

was decided to conduct a second experiment with additional conditions. The second experiment was designed to incorporate new discriminating predictions from our original formulations of the "balancing" and "combining" mechanism arguments, and it was felt that these results would provide a broader empirical base for evaluating these two modes of cognitive definition. In the remainder of this paper we report on the cumulative findings of both experiments and suggest how expectations are formed and the power and prestige orders are determined in multi-characteristic status situations.

Theoretical Alternatives

Given that the members of a task-oriented group are differentiated on one or more socially valued characteristics instrumental to their task and which are allocated in a consistent or inconsistent manner, how will the members of such groups form performance expectations, and how will these expectations be related to the group's power and prestige orders? This is our theoretical problem, and to facilitate our analysis we shall conceptualize it in terms of a simplified theoretical framework.

We imagine a group containing two or more actors. However, we view the group from the point of view of one actor, say p, while the other actors are treated as objects of orientation to p. For purposes of experimental study we confine our attention to two persons, p and o.

P and o are engaged in the solution of some task, which for simplicity we view as having only two outcomes, "success" or "failure." The task may be almost any kind of activity involving a series of contributions or problem solving attempts by one or more of the actors. Moreover, the members of the group are committed to the successful completion of the task, and it is both legitimate and crucial for them to take each other's behavior into account in

order to achieve this outcome. In this sense, the group is "task focused," and its members are "collectively oriented" in solving their problem.

We assume that there exist in this situation a number of specific status characteristics. A characteristic, C, is some aspect or property of an individual that might be used to describe him. For C to be a status characteristic we require that it consist of at least two states which are differentially evaluated in terms of honor, esteem, desirability. For C to be a specific status characteristic, specific performance expectations must be associated with its states. These are beliefs about how an individual possessing a given state of C will perform in defined or specified task situations. Mathematical ability, for example, may function as a specific status characteristic. We distinguish different levels of this characteristic, assign differential social values to these levels (positive and negative), and associate beliefs about the different performance capacities of individuals possessing the different states of the characteristic. Again to simplify our analysis, we assume that there exist just two such characteristics in our situation, C_1 and C_2. Each characteristic involves two states that are differentially evaluated--one positively and the other negatively--and associated with these states are the beliefs that individuals possessing them also possess, respectively, "high" and "low" performance capacities with respect to a task for which these characteristics are relevant. In our situation, we assume that it is given that p and o know that they are differentiated (possess different states) with respect to either C_1 or C_2, that these status characteristics are relevant to their task, and that they are of equal weight. Within this framework we can now consider how different distributions of the states of these status

characteristics are related to different possible power and prestige orders that might emerge in the group.

First we consider the case involving a consistent distribution of the states of the characteristics. The states of the characteristics possessed by each individual have the same or consistent evaluations so that all positively evaluated states are possessed by one individual, and all negatively evaluated states are possessed by the second. As already noted, this case would appear to present no new theoretical issues when compared with the situation in which there is a single characteristic (diffuse or specific) which differentiates the members of the group. We assume that given two or more differentiating status characteristics relevant to the group's task, if these characteristics are allocated in a consistent manner, their effect on the group's power and prestige order will be similar to that of a single differentiating characteristic. The actor who possesses the positively evaluated states will hold a higher position on the power and prestige order than the actor who possesses the negatively evaluated states. The first individual will receive more action opportunities, make more performance outputs, be more likely to have these positively evaluated, and exercise more influence than the second individual.

The case where there is an inconsistent distribution of differentiating characteristics is considerably more complex. This is the situation where at least one of the group members, p or o, possesses states of the characteristics that do not have consistent evaluations--for example, p possesses the positively evaluated state of C_1 and the negatively evaluated state of C_2. Here the actor has two bases for forming his performance expectations, and the information they provide is contradictory. The information provided by

one characteristic is that p has a "high" performance capacity relative to o on this task, while that conveyed by the second is that he has a "low" performance capacity relative to o on the task. We assume that p comes to cope with this problem, and that through the operation of some particular cognitive mechanism he comes to form performance expectations that enable him to interact effectively in the situation. We further assume that the cognitive mechanism that operates to determine the formation of performance expectations in this case will also be operative in the situation where the distribution of status characteristics is consistent. Thus in determining which mechanism operates in the case of inconsistent distributions, we are trying to determine more generally how expectations will form in situations in which two or more status characteristics are task-significant.

On theoretical grounds, two alternative modes of cognitively defining the situation seem possible. The first, which we call a "balancing" mechanism, is based on some of the general ideas to be found in the literature on cognitive consistency theories (Heider, 1946; Newcomb, 1953). Applying this line of thinking to our problem, we reason that the actor p will tend to cognitively balance his situation so as to form performance expectations for self and other that correspond with a distribution of states of characteristics that is consistent or univalent for each individual. When the distribution of the states of characteristics is such that each actor already possesses consistently or univalently evaluated states, p will form his expectations based on the actual distribution of status characteristics. When the distribution of status characteristics is inconsistent, p is expected to cognitively alter the situation. If p possesses, for example, the positively evaluated state of C_1 and the negatively evaluated state of C_2, he might use only one of these

characteristics as the basis on which he forms task expectations. Or, he might decide that the information regarding the inconsistent characteristics is erroneous and that he in fact possesses states with similar evaluations. The particular manner of balancing the situation, such as the two just considered, is likely to depend on the context of the specific situation. What is important, however, is that according to this line of reasoning the actor will form expectations that correspond to a perceived distribution of states that is consistent or univalent for each individual. Consequently, in terms of the conditions of our problem where only two states are distinguished on C_1 and C_2, different distributions of these characteristics will result in p's forming one of two expectation states for self and other--either "high" or "low." Through the operation of the balancing mechanism, different distributions will be reduced to a unique balanced structure.*

The second mode of cognitively defining the situation that we considered is one which we refer to as a "combining" mechanism. The ideas involved here are loosely associated with those from information and decision-making theories. According to this mechanism, the actor operates essentially as an information processing system, taking into account all information available to him regarding the relevant status characteristics and the task in the situation. Thus in forming expectations for self and other, p will use the information provided by both characteristics. In a manner which we cannot as yet precisely describe, he will combine the performance information given by each of these characteristics in forming <u>resultant</u> expectation states. When p is confronted with a consistent distribution of equally weighted status

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*More generally, this argument leads us to expect that the number of different expectation states p can form is limited to the number of differentially evaluated states distinguished on the status characteristics possessed by the members of his group.

characteristics, his resultant expectations will simply reflect the "high" and "low" performance conceptions associated with the states of these characteristics. When p is confronted with an inconsistent distribution of these states, when a group member has "high" performance capacity on C_1 and "low" on C_2, he will form a resultant expectation state lying somewhere between "high" and "low": an "average" level state. Thus under this mechanism, the combined expectations that p will form for self and other can assume a large number of different values ranging from "high" to "low" and depending on the particular distribution of the characteristics in the situation.

Since there were no clearcut theoretical grounds to favor one of these cognitive defining mechanisms over the other, we designed and conducted two experiments to enable us to discriminate between them. These experiments correspond with the simplified theoretical structure developed in this section.

The Experiments

The research reported here was carried out in two experiments. In the first experiment we created three conditions or different distributions of specific status characteristics, two consistent and one inconsistent. The results of this experiment provided clear support for the combining mechanism argument, but we thought they might be restricted to the special inconsistent condition we had investigated. Accordingly, we ran a second, identical experiment three months later with two additional inconsistent conditions to allow us to contrast additional predictions from our original sets of assumptions. It is advisable to consider simultaneously the data from both experiments when evaluating the two defining mechanisms, so we are reporting this research as a single unit.

In the first phase of the experiment we created two specific status characteristics and assigned states of these characteristics to two subjects.

We then put the subjects in a standardized experimental situation where we could measure the likelihood of each subject being influenced by the other. This measure of influence was used as the indicator of the power and prestige position of the individual in the group.

When they arrived at the experimental laboratory the subjects were taken to separate rooms where they were given two written tests designed to establish two fictional abilities, or specific status characteristics, on which the subjects could be differentiated. One test claimed to measure "Meaning Insight Ability," described as a basic ability of the individual. It contained fictional word association problems in which an English word is matched with the supposed phonetic spellings of two non-English words from a language unknown to the subjects. They were asked to determine which of the two non-English words had the same meaning as the English word. The other test measured "Relational Insight," another basic ability. It asked the subject to determine which of two ancient Japanese ideographs had the same pronunciation as that given by the phonetic spelling of a Japanese word, regardless of their meanings. There were twenty problems in each test. Previous experience has shown these tests to be vague and yet believable enough to allow the experimenter to induce a subject's belief and confidence in almost any score. They provide an efficient means for creating and randomly assigning states of specific status characteristics.

When the tests were completed, the subjects were taken to another room and seated in individual booths. The apparent purpose of the experiment was then explained. They were told that they would be working on a "Contrast Sensitivity" task requiring group decision-making and the visual judgment of a series of slides. Each slide showed two rectangular patterns, one above

the other, and each pattern was composed of a different arrangement of small black and white rectangles. The problem, they were told, was to decide for each slide which of the two patterns contained the greater area of white. Like the two ability tests, this task was meant to be ambiguous, with no right answers. Both patterns in each slide contained the same area of white, and previous standardization work with the task indicated that the actual probability of picking either pattern was approximately .5 for each slide (Ofshe and Simpson, forthcoming). Although the actual sequence was maintained from experiment to experiment, the order of presentation was determined by selecting a random starting stimulus for each group to control for any lack of homogeneity between stimulus slides.

The status characteristics were introduced by telling the subjects that since they would be working together as a group it would be helpful for them to know as much as possible about each other, and the tests they had taken earlier would provide this information. Relevance between the characteristics and the task was established by representing Meaning Insight Ability and Relational Insight Ability as being highly correlated with Contrast Sensitivity and with each other. People with high Meaning Insight and high Relational Insight abilities usually do quite well on Contrast Sensitivity problems, and people without these abilities usually do poorly. Furthermore, to make the two abilities appear equally relevant, the intrinsic properties of the tests themselves were constructed to be quite dissimilar from the Contrast Sensitivity task.

At this point the subjects' scores were reported to them, and this represented the only variation between experimental conditions. Five conditions, two consistent and three inconsistent, were created from three subject

groupings. The two consistent conditions were created from one grouping so that one subject in each of these pairs was told that he had received very high scores on both tests, 18 and 19 out of a possible 20 each, and the other subject was told that he had received very low scores on both tests, 9 and 8 out of 20. We designate these conditions as HH-LL for the consistent high subjects, meaning two high states (HH) for self and two low states (LL) for other; and LL-HH for the consistent low subject, meaning two low states for self and two high states for other.

One of the inconsistent conditions was created from the second subject grouping as one subject in each pair was told that he had received a very high score, 18, on one test, and a very low score, 9, on the other; while the other subject was told that he had received a very low score, 8, on the first test, and a very high score, 19, on the second. These subjects were all included in what we designate as the HL-LH condition, meaning an inconsistent high and low state for both self and other, but on different dimensions.

The other two inconsistent conditions were created from the third subject grouping. One subject in each of these pairs was told that he had received very high scores, 19 and 18, on both tests; the other subject learned that he received a very low score, 9, on one test, and a very high score, 18, on the other one. We designate these conditions as HH-LH, meaning an inconsistent two high states for self and a low and high state for other; and as LH-HH meaning an inconsistent low and high state for self and high states for other.

Within each grouping, the assignments of states or scores were randomly determined for the subjects. The reporting of tests was alternated so that an LH-HH subject would be low on Meaning Insight and high on Relational Insight

in one group, and low on Relational and high on Meaning Insight in the next.*

To perform the Contrast Sensitivity task each subject gave an initial opinion of the correct answer, saw the other person's initial opinion, and then made a final decision. They were told that the exchange of information on initial opinion was part of the group decision-making procedure and might be helpful to their own solutions of the problems, but in fact the exchange was controlled and built into the experiment to provide the opportunity for exercising influence. All communication between the subjects took place through the panels of an interaction control machine. One panel was located on each subject's desk, and it allowed him to make his initial choice by pressing one of two buttons, to then see the other person's initial choice on a signal light, and to indicate his final decision. An experimental assistant in a separate room could control the information on the other person's choice, so that the subjects could be made to see an agreeing or disagreeing initial choice from the other person independently of the other person's actual choice.

The experiment was run for twenty-five trials or Contrast Sensitivity slides. Twenty of these were controlled disagreements or "critical" trials

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*The HH-LL, HL-LH, and LL-HH conditions were included in the first experiment. As already noted, the results of this experiment provided support for the combining mechanism argument. The influence rate for the inconsistent HL-LH subjects, as predicted by this argument, fell in between the rates for the subjects in the two consistent conditions. However, it was felt that the HL-LH condition, being both inconsistent and perfectly symmetric, might have represented a special case. It was therefore decided to run a second experimant with the HH-LH and LH-HH as additional inconsistent conditions (see Berger and Fisek, 1970).

in which both subjects thought they were disagreeing with each other. The five agreement trials were also controlled and were randomly distributed for each group with one agreement included in each successive block of five trials. The reason for this high proportion of disagreements was to force the subjects to differentiate themselves on task performance.

After the experiment the subjects were given a questionnaire to fill out, and when that was completed they were taken to separate rooms where they were extensively interviewed. The purpose of the questionnaire and interview was to determine the effectiveness of the experimental manipulations and provide information on the cognitive sets of the subjects at the end of the experiment.

One hundred sixty male students from local junior colleges took part in these experiments. They were recruited as volunteers and were paid for their participation. Thirty-five of these subjects were excluded from the analysis of the results because they violated one or more of the initial conditions of the experiment, as determined in the post-experimental questionnaires and interviews and according to our standardized criteria.

1. Suspicion: If he became suspicious of any of the experimental manipulations the subject was eliminated from the sample, as were those who had previously read about deception experiments and thought this experiment similar to them, and any who had heard from others that deception was involved in this study.

2. Extraneous bases of differentiation between subjects: If particular circumstances provided him with a basis of differentiation other than the experimental manipulation, the subject was eliminated from the sample. All

visible minority group members were thus excluded, and previous acquaintance between the two group members also resulted in exclusion.

3. Failure of experimental manipulations: If he was unable to understand the instructions, or was confused about what was happening in the experiment, or did not understand crucial parts of the instructions such as the relation of the tests to the Contrast Sensitivity task, the subject was eliminated from the sample.

One hundred twenty-five remained in the sample after the exclusions were made. Of these, 26 were in the HH-LL condition, 27 in the HH-LH, 26 in the HL-LH, 22 in the LH-HH, and 24 in the LL-HH. The predictions and results for these subjects are presented in the following section.

Predictions and Results

Our measure of an individual's power and prestige position was the rate at which he accepted influence, given a disagreement with other. This was operationalized as the proportion of "stay-responses" made by a subject over the twenty critical trials of the experiment. A subject's response was coded as a "stay-response" if his final decision was the same as his initial choice, and was coded as a "change-response" if his final decision coincided with his partner's initial choice.

Arguments for the combining and balancing mechanisms lead to different predictions particularly for subjects in the inconsistent conditions. It is assumed, however, that whichever mechanism operates in inconsistent conditions also operates in consistent conditions, so we shall consider the results from both types of conditions in discriminating between mechanisms. What are the specific predictions which follow from the balancing and combining arguments for the different conditions in this experiment?

The argument for the balancing mechanism is that all subjects will hold either high expectations for self and low for other, or low for self and high for other, and these will correspond with a perceived distribution of states of characteristics that is consistent or univalent for each individual. The individual's power and prestige position will then be directly determined by the "expectation advantage" he enjoys in relation to his partner. That is, the higher the expectations the individual holds for self relative to other, the higher his power and prestige position. For subjects in the HH-LL or LL-HH conditions, consistent distributions of states of characteristics are already given for each individual. The expectation structures which respectively correspond to these distributions are high-self, low-other and low-self, high-other. Consequently, we would expect subjects in the HH-LL condition to be less influenced and have a higher rate of stay-responses than subjects in the LL-HH condition. If the balancing argument is correct, subjects in the inconsistent conditions would also form expectations that correspond to a perceived distribution of states of characteristics that is consistent or univalent for each individual. For this to occur, these subjects would either select only one of the characteristics as a basis for their expectations or by cognitive distortion perceive the characteristic states possessed by each individual as having the same value. In either event, individual subjects in these conditions would form either high-self, low-other or low-self, high-other expectation structures. Thus we would expect individual subjects in the inconsistent conditions to have a rate of stay-responses similar to subjects in either the HH-LL or the LL-HH condition. Ideally, if the balancing mechanism were also operating in a uniform manner for the subjects in any given inconsistent condition, we should find the overall proportion in that

particular inconsistent condition approximating the proportions in one of the two consistent conditions. But this may not be true, and some subjects in a given inconsistent condition might cognitively balance the situation by forming high-self, low-other expectation states and others by forming low-self, high-other states. We might then find the overall proportion of stay-responses in that particular condition diverging from the proportions in the consistent conditions. To the extent that this divergence occurs, however, we would definitely expect to find in the inconsistent condition clear evidence of bi-modality, with some subjects having response rates similar to the HH-LL subjects and the rest with response rates similar to the LL-HH subjects.

The argument for the combining mechanism assumes that the individual uses all the information available concerning the distribution of states of characteristics in forming expectation states for self and other. These expectation states are an "average" or some combining function of states of characteristics he and the other possess. When the individual is informed that he is high on two equally weighted characteristics and the other is low on these characteristics, the HH-LL condition, he is expected to form a high-self, low-other expectation structure. Similarly, this argument assumes that the individual in the LL-HH condition will form low-self, high-other expectations. According to the combining mechanism, whenever subjects in inconsistent conditions are confronted with the fact that they or their partners are high on one characteristic and low on a second equally weighted characteristic they will take this information into account and combine it to form expectation states. In such cases it is predicted the subject will form expectations for an "average" performance level relative to the task, somewhere between high and low. Thus subjects in the HH-LH condition are expected to form expectation

states which are high for self and "average" for other, those in the HL-LH condition are expected to form expectation states which are "average" for self and "average" for other, and those in the LH-HH condition are expected to form expectation states which are "average" for self and high for other. Assuming once again that the higher the expectations an individual holds for self relative to other (or alternatively, the greater his "expectation advantage") the higher his power and prestige position, the combining mechanism argument allows us to predict a specific rank order for the acceptance of influence for the five conditions of our study. Since subjects in the HH-LL condition have the greatest expectation advantage they should be least influenced and have the highest rate of stay-responses. It follows that subjects in the HH-LH condition should have the second highest rate of stay-responses, those in the HL-LH condition the third highest, those in the LH-HH condition the fourth highest, and finally subjects in the LL-HH condition should be most influenced and have the lowest rate of stay-responses. Furthermore, we are led to expect that the distribution of the number of stay-responses per subject for each inconsistent condition should be uni-modal and similar to the distributions in the consistent conditions. The combining argument, in short, predicts that each inconsistent condition will be characterized by a rate of stay-responses that is peculiar to itself.

The experimental results are presented in Table 1. This table shows the proportions, mean number of stay-responses, and variances for subjects in each of the five conditions.

Table 1 about here

Table 1

Proportion, Mean Number of Stay-Responses, and Variance

Condition	Number of Subjects	Stay-Responses		
		Proportion	Mean	Variance
HH-LL*	26	.821	16.42	4.73
HH-LH+	27	.718	14.37	8.01
HL-LH*	26	.661	13.23	5.62
LH-HH+	22	.620	12.41	7.49
LL-HH*	24	.533	10.67	10.23

* Condition included in the first experiment

+ Condition added for the second experiment

It is quite apparent that the experimental results reported in Table 1 support the assumptions of the combining mechanism argument. On the basis of this formulation we expected that the subjects in the five conditions of our experiment would develop five distinct self-other expectation structures. Since these different expectation structures also entail differences in the individual's expectation advantage relative to his partner, this formulation led us to predict a specific ordering of rates of stay-responses for the five conditions of the experiment. As can be seen in Table 1, the data are ordered exactly in the predicted manner. Subjects in the HH-LL condition had the highest level of expectation advantage and the highest rate of stay-responses (.821) of any subjects in any other condition. Similarly, subjects in the HH-LH condition had the next highest level of expectation advantage and the next highest rate of stay-responses (.718). This pattern continues for the remaining three conditions. As the level of theoretical expectation advantage decreases, the proportion of stay-responses decreases: .661, .620, and .530.

Table 2 about here

Table 2 presents the results of the Mann-Whitney U tests for pairs of conditions which are adjacent in terms of their expectation advantage (e.g., HH-LL vs HH-HL). These tests were carried out to determine whether minimal differences in expectation advantage were associated with significant differences in rates of stay-responses. While the tests do not yield .05 significance for all comparisons, it seems evident that even slight changes in expectation advantage had a marked effect on the subjects' tendencies to stay with their own initial opinions. To the extent that statistical

Table 2

Mann-Whitney U Test for Adjacent Conditions

Adjacent Conditions	Test Statistics		
	U	Z	P
HH-LL* / HH-LH^{+}	197.00	2.76	.003
HH-LH^{+} / HL-LH*	281.50	1.25	.11
HL-LH* / LH-HH^{+}	233.50	1.10	.14
LH-HH^{+} / LL-HH*	184.00	1.77	.04

*Condition included in first experiment

$^{+}$Condition added for second experiment

significance was not obtained for all comparisons, it is believed to be a function of the narrowness of the entire range of stay-responses.

In order to view the overall significance of the results, we applied the Jonckheere test for ordered means to the data for the five conditions. This is a non-parametric test which determines the likelihood that the order of the rates of stay-responses predicted by the combining mechanism could have occurred by chance. The probability of such an occurrence is computed at $p < .001$, so we can obviously reject the alternative hypothesis that the specific ordering of conditions was a chance occurrence.*

This analysis, however, does not completely rule out the balancing mechanism argument, which admits the possibility that the direction of the cognitive balance may not be uniform in each of the inconsistent conditions and that some subjects in these conditions may be balancing in the direction of forming high-self, low-other expectations while the rest are balancing in the direction of forming low-self, high-other states. If this occurred in proportions that varied by inconsistent conditions, the resultant mean rates of stay-responses for these inconsistent conditions could turn out to have the observed ordering. However, as noted previously, if this did occur there should be clear evidence of bi-modality in each of the inconsistent conditions. In order to examine additional data relevant to this problem, we present in Table 3 the frequency distributions of the number of stay-responses for each of the five conditions.

Table 3 about here

*In comparing this value we followed the conservative procedure of always breaking ties against the ordering hypothesis as recommended by Jonckheere (1954).

Table 3

Distribution of Stay-Responses for Each Condition

Number of Stay-Responses	HH-LL*	HH-LH+	HL-LH*	LH-HH+	LL-hH*
1					
2					
3					
4					x
5					
6					x
7			x	x	xxxx
8					x
9				xxx	x
10		xx	x	xx	x
11		xxx	xxx	x	xxxxx
12	xx	xx	xxxxxx	xxxx	xxx
13	x	xxxxx	xxx	xxxxx	xx
14	x	xxx	xxxx		xx
15	xxxxx	xxx	xxxx	xxx	xx
16	xx	x	xx	xx	x
17	xxxxxxx	xxxxx	x		
18	xxxx	x	x	x	
19	xx				
20	xx	xx			

* Condition included in first experiment

+ Condition added for second experiment

Although the numbers involved are small for a definitive judgment on this matter, the data presented in Table 3 give us no clearcut indication of bimodality in the three inconsistent conditions. In fact, the distributions for all conditions (with the possible exception of the LL-HH condition) look surprisingly similar in shape.* Thus on the basis of available evidence, we reject the argument that the observable ordering of rates of stay-responses is due to an aggregating of two populations of subjects whose proportions vary by inconsistent conditions and who are balancing in different directions.

We conclude that the data obtained from these experiments clearly favor the combining mechanism argument. The subjects of these experiments appear indeed to be operating on the information given to them about the states of the specific status characteristics each of them possesses in forming task expectations for self and other, and they use and combine all the relevant information that is available to them. Thus when the distribution of the states of the characteristics is inconsistent they tend to combine the states of the two characteristics in order to form "average" states.

Summary and Conclusions

In this paper we have presented the cumulative findings from two experiments dealing with the problem of the emergence of power and prestige orders in multi-characteristic status situations. Our specific theoretical interest has been to determine how actors form performance expectations for self and

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*Since all the subjects in the LL-HH condition were placed in a consistent low state to begin with, the relatively high variance in this condition cannot be taken as evidence for the balancing mechanism argument insofar as it applies to the problem of multiple characteristics. Rather, this high variance is believed to reflect the tension and resulting unstable behavior produced by the cumulative effect of the two low ability manipulations employed in this condition.

others given different distributions of specific status characteristics that are instrumental to their task.

We have considered two alternative mechanisms which may be operating in the formation of expectations in multi-characteristic task situations. The first, which we have referred to as a balancing mechanism, postulates that the actor cognitively defines the situation so as to form expectation states that correspond with a perceived distribution of states of characteristics that is consistent or univalent for each individual. The operation of this mechanism, in the situation we considered, would result in p's assigning one of two expectation states to self and to other, either "high" or "low." The second cognitive process we considered is one we have called a combining mechanism. This postulates that the actor forms his expectations by combining or averaging the performance information contained in the states of the status characteristics possessed by self and other. In our case, the operation of this mechanism would result in p's assigning to self and to other one of a large number of different expectations ranging from "high" to "low" and depending upon the particular distribution of status characteristics. In any event, once p has formed expectations, whether through the operation of a balancing or combining mechanism, his power and prestige position is assumed to be directly related to the expectation advantage he holds relative to his partner in the task situation.

The results of an initial experiment provided support for the combining mechanism argument. Since the possibility existed that these findings might have been restricted to a special multi-characteristic situation, we thought it desirable to investigate additional conditions. We conducted a second

experiment incorporating additional predictions and conditions, and our findings from both studies have been reported as a unit.

These experiments consisted of two phases. In the first we established and assigned the states of two specific status characteristics to two actors, who were then placed in a standardized experimental situation where we could measure the power and prestige ordering that developed. These experiments involved three separate distributions of two specific status characteristics, giving us five experimental conditions. In two conditions the distribution of status characteristics was consistent: HH-LL and LL-HH. In three of the conditions there was an inconsistency with respect to self, other, or both: HL-HH, HH-HL, HL-LH. The balancing and combining mechanisms make different predictions as to the behavior of subjects in the inconsistent conditions. It is assumed, however, that whichever mechanism operates in inconsistent situations is also the mechanism which operates in consistent situations. Therefore, the results for consistent and inconsistent conditions were considered in discriminating between mechanisms.

The findings from the experiments support the combining mechanism argument. From our formulation of this argument we derived a specific predicted ordering of mean rates of acceptance of influence for the five conditions studied. Our experimental results revealed that this particular ordering did in fact obtain. It also appears to be the case that these results are not due to aggregating of responses over subjects who are balancing in radically different ways in inconsistent situations. Thus the cumulative data presented here argue strongly for the operation of a combining mechanism in multi-characteristic status situations.

We must, however, temper our conclusion. Preliminary results from further investigations into this problem suggest that our observed ordering may undergo change when interaction is extended. If this proves to be the case, it raises the more general question as to whether a combining state is an end or stable state, and under what conditions might it be expected to undergo change. This problem both merits and requires further investigation.

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