

STATUS INCONSISTENCY, STATUS ASPIRATION, TASK MOBILITY, AND PREFERENCES FOR SPECIALIZATION AND DESPECIALIZATION OF GROUP TASK STRUCTURE

by

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### ABSTRACT

STATUS INCONSISTENCY, STATUS ASPIRATION, TASK MOBILITY, AND PREFERENCES FOR SPECIALLATION AND DESPECIALIZATION OF GROUP TASK STRUCTURE

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This paper reports an experiment designed to test the following bypotheses: (1) Status inconsistency of a hard task--low ability type results in downward task mobility when status aspiration is low. (2) Status inconsistency of a hard task--low ability type results in preference for a less specialized task structure in a group when status aspiration is high. (3) Status consistency of an easy task--low ability type results in preference for a less specialized task structure in a group when status aspiration is high. (4) Status inconsistency of an easy task--high ability type results in upward task mobility when status aspiration is low. (5) Status inconsistency of an easy task--high ability type results in preference for a specialized task structure in a group when status aspiration is high. (6) Status consistency, irrespective of type, is positively associated with satisfaction. Reduction of status inconsistency of either the hard task--low ability or the easy task--high ability type results in an increase in satisfaction.

Subjects were given tests which led them to believe that they had high or low ability with respect to a given kind of task. Hard and easy tasks of this kind were then assigned to the subjects in ways that created task-ability consistency or inconsistency. Status aspiration was manipulated by giving the subjects fictitious scores for previous subjects like themselves.

### Abstract (continued)

The subjects were then permitted to choose either individual tasks or group task structures. Satisfaction was measured before and after their choices.

Hypotheses 1., 4., and 6. were partially supported. Hypotheses 2., 3. and 5. were not supported. Data concerning subjects' misperception of how points could be obtained in the experiment suggest that the subjects gave greater weight to the base of status they could most easily change and that this, in turn, minimized inconsistency. Such a weighting process appears to be a basic mode of reducing status inconsistency. STATUS INCONSISTENCY, STATUS ASPIRATION, TASK MOBILITY, AND PREFERENCES FOR SPECIALIZATION AND DESPECIALIZATION OF GROUP TASK STRUCTURE<sup>1</sup>

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The present paper reports an experiment which was designed to test a number of hypotheses concerning behavioral responses to status inconsistency. We shall not attempt to describe the psychological processes which probably underlie the responses. We have done this elsewhere (Kimberly, 1966, 1967; and Kimberly and Crosbie, 1967). Rather, we shall assume that status inconsistency is, under the conditions dealt with in the present experiment, psychologically uncomfortable and shall focus on the ways in which the behavioral responses serve to reduce the discomfort.

The type of status inconsistency studied was inconsistency between difficulty of task in a group and ability relevant to task. The behavioral responses studied were task mobility and preferences for specialization and despecialization of the task structure of the group. The responses were observed under conditions of high and low status aspiration because it was predicted they would be affect by this variable.

### **HYPOTHESES**

The hypotheses which were tested are part of a theory which has been presented elsewhere (Kimberly, 1966, 1967). We shall present here only so much of the theory as is necessary to an understanding of the hypotheses. This will be done in a way that relates it as closely as possible to the present experiment. Two kinds of status inconsistency were defined. These were having a hard task and insufficient ability to do it and having an easy task and more than sufficient ability to do it. For purposes of comparison, two kinds of status consistency were also defined. These were having a hard task and sufficient ability to do it and having an easy task and sufficient but not more than sufficient ability to do it.

Two kinds of task mobility were defined. These were movement upward from an easy task to a hard task and movement downward from a hard task to an easy task.

Preferences for specialization and despecialization of the task structure of the group were defined as follows. Preference for specialization was defined as wanting the tasks of different members of the group to differ in difficulty. Preference for despecialization was defined as wanting the tasks of different members of the group to be of the same difficulty. This was possible because each task consisted of subtasks which could be shifted from individual to individual. We should note here that we consider this kind of task-subtask structure to be characteristic of most groups.

High status aspiration was defined as wanting to be as high as possible on all bases of status. We should point out here that a given task can be wanted for at least two reasons in the present experiment. First, it can be wanted because one has the ability to do it. This is viewed as deriving from a preference for consistency. Second, it can be wanted because one wants a high overall status and having a hard task is part of having such a status. This is viewed as deriving from high status aspiration.

We can now state the hypotheses which we tested.

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specialization, HH, EE; despecialization, HE, HE.

The rationale for the hypothesis that inconsistency of the hard task-low ability type results in preference for a despecialized task structure when status aspiration is high can now be explained more fully. Initially, we have a low ability individual with a HH task. The hardness of this task contributes in part to his overall status. Thus status aspiration should make him wish to retain it. Inconsistency, on the other hand, should make him want an EE task. Thus, there is a conflict of forces. These are reconciled, we think, by preferring (and obtaining if possible) an HE task. However, if there are only two H subtasks and two E subtasks in the group, both members of the group must have an HE task if one of them does. The fact that one member's preference affects what the other member may have is the reason we view preferences for specialization and despecialization as preferences for group task structures.

Although this is a simple instance of preference for despecialization of task structure in a group, we think that more complex instances are related to status inconsistency in the same way we predicted this one would be.

3. <u>Status consistency of the easy tash--low ability type results in a</u> preference for a less specialized task structure in the group when status aspiration is high.

The rationale for this hypothesis, like the rationale for hypothesis 2., is rather complex. Initially, we have a low ability individual with an EE task. The easiness of this task makes for low status. Thus status aspiration should make him want a hard task. Consistency, on the other hand, should make him wish to retain the EE task. Thus, there is a conflict of forces. These, as in the case of hypothesis 2., are resolved, we think, by preferring (and, of course, obtaining if possible) an HE task.

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4. <u>Status inconsistency of the easy task--high ability type results in</u> upward task mobility when status aspiration is low.

The rationale for this hypothesis, like the rationale for hypothesis l., is that status inconsistency results in a tendency to equalize bases of status. Since status aspiration is low, it should not interfere with this tendency. Again, as in the case of hypothesis l., mobility on task rather than on ability should occur because ability was defined as relatively unchangeable in the experiment.

5. <u>Status inconsistency of the easy tas</u> --high ability type results in a preference for a specialized task structure in the group when status aspiration is high.

The rationale for this hypothesis, like the rationales for hypotheses 2. and 3., is rather complex and requires somewhat extended explanation. Again, we shall define specialization-despecialization as we defined it in the experiment. First, we would not expect a high ability individual with an EE task to want an HE task because this would only partially equalize the bases of status. Further, since status aspiration is high, wanting an HE task would be even more unlikely. Thus, we would expect the individual to prefer the specialized task structure which exists but to prefer that he and the other member of the group exchange tasks.

The question of just how this is different from task mobility may have occurred to the reader. It differs primarily in that it requires the individual to specify what task he wants the other member of the group to have.

Although this is a simple instance of preference for specialization of task structure in a group, we think that more complex instances in which specialization only partially exists are related to status inconsistency in

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the same way we predicted this one would be.

As we indicated earlier, we have described elsewhere the psychological processes which probably underlie the behavioral responses studied in the present experiment. On the basis of this work, we assumed that, under the conditions dealt with in the experiment, status inconsistency is uncomfortable. If this is the case, the following should be true.

6. <u>Status consistency</u>, irrespective of type, is positively associated with satisfaction. Reduction of status inconsistency of either the hard task-low ability or the easy task--high ability type results in an increase in satisfaction.

In the experiment, satisfaction was measured in terms of satisfaction with task because ability was defined as relatively unchangeable and because reduction of inconsistency could be accomplished only by changing one's task.

### THE EXPERIMENT

<u>General procedure</u>. Two subjects at a time were taken into an experimental room where there were two booths, a table for the experimenter, and a blackboard. Each booth consisted of a table and a chair and was separated from the other booth by a curtain which made it impossible for the subjects to see one another.

Unknown to the subjects, the ability treatment a subject received depended upon the booth he was in. Prior to being seated, each subject drew a card at random which specified the booth he would take. Since the consistency conditions were created by assigning different tasks to the ability treatments, the card also indicated a particular kind of task. The subject was told he would work on the kind of task on his card for the first two of three problem periods. He was further told that he would be able to express

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a preference for the kind of tasks he would like to work on in the third problem period. In order to involve the subjects as much as possible, they were told that the tasks required an ability which is not related to high school or college grades or to I.Q., but which is nevertheless characteristic of successful people in all walks of life.

Once seated, the subjects were given what was described as an ability test. This consisted of four problems. Two of the problems were labeled easy and two hard. The subjects were told that these were the same type of problems that they would have in the three problem periods, except that in each period they would have two such problems. The subjects were further told that these particular problems were "extremely accurate predictors" of how well they would do in the three problem periods. Unknown to them, one subject received problems that were objectively easier than those the other subject received. The same difference in objective difficulty was maintained for the problems in the problem periods as well. This constituted the ability manipulation. It will be explained in greater detail in the next section.

The subject who received the objectively easier problems (the high ability treatment) was told that he got all four problems correct, whereas the subject who received the objectively harder problems (the low ability treatment) was told that he got only the two easy problems correct.

Following the ability test, a point system was explained to the subjects. This was the reward structure which was designed to give recognition for both possession of a task and performance on it.<sup>2</sup> Greater recognition was given for a hard task than an easy task. The reward structure will be described in greater detail later.

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As indicated **s**bove, in the first two problem periods each subject worked on the kind of task indicated on his card. After the second problem period, each subject was given a sheet showing the number of points he had accumulated to that time. Also on this sheet, he was told, was the average number of points that other students like himself, i. e., with similar ability and similar tasks in the first two problem periods, had accumulated for all <u>three</u> problem periods. This sheet was designed to make the discrepancy between the subject's points and the average number of points easily noticeable. This constituted the aspiration manipulation which will be explained in greater detail later. After the subjects had the opportunity to study their accumulation sheets, they were asked to express preferences for the kinds of tasks they would like in the third problem period. The various alternatives **avail**able to the subjects were designed to provide a measure of tendencies toward task mobility and toward specialization or despecialization of task **structure**.

Satisfaction was measured at the end of each problem period. Following the third problem period, a post-experimental questionnaire was administered. This was designed to assess the effectiveness of the experimental manipulations and to ascertain suspicion.

<u>Task and ability manipulation.</u> The problems used in the experiment were taken from Raven's <u>Standard Progressive Matrices</u>. This is an I. Q. test, but the subjects were told it was not so as to eliminate insofar as possible any suspicion which their conceptions of their I. Q.'s might produce. The solution to each problem in the <u>Progressive Matrices</u> requires the completion of a series of symbol configurations. The series to be completed is preceded by two complete series of similar configurations which define a principle of variation.

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As indicated earlier, high and low ability conceptions were created by giving subjects problems of differing difficulty. On the basis of a **pretest** with twenty-five students from the same college as the subjects, we selected problems from the <u>Progressive Matrices</u> test which fell at three distinct levels of difficulty. These ranged from level one, the easiest, through three, the hardest. In order for the ability manipulation to be credible, the first two levels were selected so as to be easy to solve while the last one was selected so as to be extremely hard to solve. Since many of the problems in this test probably can be solved by the average college student given an indefinite period of time, it was necessary to restrict the time limit. The levels of difficulty described hold for a time limit of fifteen seconds per problem.<sup>3</sup>

From Table 1 it can be seen that the high ability conception was induced Insert Table 1 about here

in the ability test by giving a subject problems from levels one and two, and labeling these easy and hard respectively. We believed that a subject in this treatment would be confident that he could solve all of the problems correctly. The low ability conception was induced in the ability test by giving a subject problems from levels two and three, and labeling these easy and hard respectively. We believed that a subject in this treatment would be confident that he could solve only the easy problems correctly. The problems in the tasks used in the problem periods varied in objective difficulty in the same way as did the problems used in the ability manipulation. For example, as indicated in Table 1, if in a problem period a subject had a task labeled as consisting of two hard problems, he received two problems from level two if he was in the high ability treatment, but two problems from level three if he was in the low ability treatment.

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## Table 1

Labeled and Objective Levels of Difficulty

of the Problems Used in the Experiment

Labels given to high ability subjects	Objective levels of difficulty	Labels given to low ability subjects
	3	H (hard)
H (hard)	2	E (easy)
E (easy)	1	

The problems were ostensibly scored at the end of the ability test and at the end of each of the three problem periods. Subjects in the high ability treatment were always told they got all of their problems correct, while subjects in the low ability treatment were always told they got only their easy problems correct.

<u>Consistency conditions</u>. In order to create conditions of consistency and inconsistency, it was necessary to vary task difficulty within the ability treatments. As indicated earlier, this was accomplished during the drawing of the cards prior to the ability test. Since the ability treatment a subject received depended upon the booth designated on the card he drew, tasks were assigned to cards in such a way as to create the desired conditions. In the consistent conditions, a subject who was to be in the booth receiving a high ability treatment had a task consisting of two hard problems, and a subject who was to be in the booth receiving a low ability treatment had a task consisting of two easy problems. In the inconsistent conditions, a subject who was to be in the booth receiving a high ability treatment had a task consisting of two easy problems, and a subject who was to be in the booth receiving a high ability treatment had a task

The subjects worked on the tasks they drew for the first two problem periods. It was believed that the second problem period would serve to make the subjects more fully aware of the consistency or inconsistency we had attempte to create. In the third problem period the subjects were given the opportunity to express a preference for the kind of task they would like.

<u>Reward structure</u>. The point system used in the experiment was designed to distinguish between the possession of a task and the correct solution of the problems of which it consisted. Further, an attempt was made to give relatively equal weight to both of these aspects of the reward structure. As indicated in Table 2, points were awarded for both the possession of a Insert Table 2 about here

task and correct solutions of the problems in it. More points were given for the possession and solution of hard problems than for easy problems. Five points were given for each easy problem in a task and fifteen points for each hard problem. Similarly, five points were given for each easy problem solved correctly and fifteen points for each hard problem solved correctly. In examining this system, it should be remembered that the high ability subjects were told that they solved all problems correctly, while the low ability subjects were told that they solved only easy problems correctly.

A word should be added on the distribution of points. Those points that were awarded for the possession of the task were given before the subjects began working on the tasks. They were given independently of performance and were not lost when a subject was told he solved a problem incorrectly. Points awarded for correct solutions were given at the end of each problem period after answers to the problems ostensibly had been corrected.

Aspiration manipulation. Status aspiration was operationally defined in the experiment as a desire for a given number of total points. It was assumed that the subjects would want to be at least as good as others whom they were told had similar ability and tasks.

As previously mentioned, the aspiration manipulation was introduced in the form of an accumulation sheet. This was given to the subjects after their performances in the second problem period were announced but before they were

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Point System Used in the Experiment

Tasks		Points		T Po	otal ints
	For tasks	For solutions high ability subjects were told were correct	For solutions low ability subjects were told were correct	For high ability subjects	For low ability subjects
HH	30	30	0	60	30
EH	20	20	5	40	25
EE	10	10	10	20	20

given the opportunity to express preferences for tasks in the third problem period. This sheet showed the number of points that the subject had accumulated in the first two problem periods. Since the scoring was determined beforehand, this number was the same for all subjects in the same consistency condition. Thus, for example, a high ability subject with an HH task in the first two problem periods always received a sheet showing that he had accumulated 120 points, irrespective of how he actually performed. In addition to the number of accumulated points, the accumulation sheet also showed the average number of points that other students with the subject's ability and with his kind of task in the first two problem periods had ostensibly accumulated for all three problem periods.

As indicated in Table 3, the subjects always needed additional points in Insert Table 3 about here

the third problem period in order to reach the average for the other students. The number of points needed differed, and this difference constituted the aspiration manipulation. In the low aspiration treatment, the average could easily be exceeded by both high and low ability subjects by choosing an EE task and solving one problem correctly, which would give them fifteen points. Thus, insofar as aspiration was concerned, there was no reason for any subject in the low aspiration treatment to prefer a task harder than an EE task. High ability subjects, of course, would be expected to prefer an HH task for reasons of consistency. In the high aspiration treatment, the average could be exceeded by low ability subjects only if they chose an HH task, which would give them thirty points. In this treatment, the average could be exceeded by

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Table 3

Number of Points Subjects Jere Told They Needed in the Third Problem Period to Receive the Average Number of Points Other Students with Their Ability and Their Type of Task in the First Two Problem Periods Had Received in all Three Problem Periods

Ability treatment	Aspiratio	n treatment	
	High	Low	999
 High	57	13	
Low	27) <sup>a</sup>	13	

<sup>a</sup>This difference occurs because low ability subjects received points only for choosing hard problems. Under the experimental procedures these subjects were always told they solved hard problems incorrectly. high ability subjects only by choosing an HH task and solving both problems correctly, which would give them sixty points. Thus, insofar as aspiration was concerned, there was some reason for all subjects in the high aspiration treatment to prefer an HH task.

It should be added that these accumulation sheets were given to the subjects privately so that one subject would not know the number of points the other subject needed to exceed the average the other subject had received. This was done because each subject was told that certain preferences for the third problem period could incluence the task that the other subject received, and it was felt that each subject's preference would more easily be made in the absence of knowledge about the other subject's needs.

<u>Experimental design</u>. We are now in a position to describe generally the design used in the experiment. The experiment was constructed to observe the effects of different consistency conditions and aspiration treatments on task choice, which encompassed both task mobility and preferences for specialized and despecialized task structures, and satisfaction. These observations enabled us to test the **six typotheses** presented in the previous section.

As indicated in Table 4, the various combinations of the independent

Insert Table 4 about here

variables produced eight separate experimental conditions. Each condition is defined by a particular consistency condition and aspiration treatment. For example, a subject in condition four, hard task--low ability--high aspiration condition, would receive the low ability treatment, work on an HH task in the first two problem periods, and see that he needed to obtain twenty-seven

## Table 4

## Experimental Conditions

Condition	Task	Ability	Aspiration	
1.	Easy	Low	Low	
2.	Hard	Low	Low	
3.	Easy	Low	High	
4.	Hard	Low	High	
5.	Hard	High	Low	
б.	Easy	High	Low	
7.	Hard	High	High	
8.	Easy	High	High	

points in order to reach the average number of points other students similar to himself in the ways described had reached.

Measures. The manipulations in the experiment were the high and low ability treatments, the task assignments, the point system, and the high and low aspiration treatments. Measures of the effectiveness of these manipulations were contained in the post-experimental questionnaire. Two measures of the effectiveness of the ability manipulation were used. One was designed to determine who each subject felt had the higher ability, himself or the other person. The other was designed to determine how accurate each subject felt the scoring was in the ability test. The measure concerning task assignment was designed to determine who each subject thought had the harder task in the first two problem periods, himself or the other person. The measure concerning the point system was designed to determine what each subject thought obtaining points depended on. Finally, the measure of the effectiveness of the aspiration manipulation was designed to determine how concerned each subject was with reaching the average number of points that other students with his ability and type of task in the first two problem periods received for all three problem periods.

The dependent variables in the experiment were task mobility and specialization or despecialization of task structure. The subject's preference for a task in the third problem period constituted the measures of these variables. Each subject was given the opportunity to express a preference either for a task for himself alone or for both a task for himself and a task for the other person. If a subject expressed a preference only for himself, this was considered to be an indication of preference for mobility. If he expressed a preference for both himself and the other person, this was considered to be an

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indication of preference for specialization or despecialization. The subjects were allowed to express their preferences privately in order to reduce any concern they might have about depriving the other person. The subject's desires were treated as preferences because they were told that there was only a limited number of tasks available. The subjects were also told that their preferences would be given equal weight, and that if a conflict of choices occurred, the experimenter would have to be the final arbitrator in deciding the kind of task each would receive. Actually, each subject received the task he chose for himself.

Satisfaction was measured at the end of each task period. Each subject was asked how he felt about the task he had just worked on. His feelings were indicated on an eleven-point scale which ranged from "felt very satisfied" to "felt very dissatisfied."

<u>Subjects</u>. One hundred and twenty male students from English classes in a nearby junior college were used as subjects. Of this number, fifteen were assigned to each of the eight conditions shown in Table 4 above. A maximum age of twenty years was set so as to insure that most subjects would be relatively naive concerning social-psychological experimentation. The subjects were recruited on a volunteer basis and were paid an hourly rate for their participation.

### RESULTS

<u>Validation of manipulations</u>. Before presenting the results for the dependent variables, we shall present the post-experimental questionnaire data relevant to the manipulations.

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To assess the effectiveness of the ability manipulation, subjects were asked if there were differences between their own and the other person's ability, and if so, who had the higher ability. Eleven subjects answered that there were no differences in ability, and one subject did not answer at all. The remainder saw a difference which was consistent with the manipulation. The eleven who saw no difference were scattered randomly through the eight experimental conditions.<sup>4</sup>

As a further measure of the ability manipulation, subjects were asked to rate how accurate they felt the experimenter was in scoring their and the other person's ability test. A six-point scale ranging from zero to five, with five indicating complete accuracy and zero indicating complete inaccuracy, was used. In seven of the eight conditions, the median response was five for both self and the other subject. In the remaining condition (hard task--high ability--low aspiration) both medians were four. Thus, subjects in all of the experimental conditions appear to have believed the experimenter was accurate in scoring both their and the other person's ability test.

To assess the affectiveness of the task assignments, the subjects were asked who had the harder task during the first two problem periods. All subjects responded in accordance with the manipulation with the exception of one who did not answer.

To determine whether the subjects had understood the point system, subjects were asked whether obtaining points depended only upon the type of task they had, only upon their performance of the task, or upon both the task they had and their performance. The last response, of course, was the correct one. There were fourteen incorrect responses, distributed as follows:

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Easy task--low ability--low aspiration, <u>one</u> responded task only; hard task--low ability--low aspiration, <u>two</u> responded task only; easy task--low ability--high aspiration, <u>one</u> responded task only; hard task--low ability-high aspiration, <u>four</u> responded task only; hard task--high ability--low aspiration, <u>none</u> responded incorrectly; easy task--high ability--low aspiration, <u>three</u> responded performance only; hard task--high ability--high aspiration, <u>one</u> responded performance only; easy task--high ability--high aspiration, <u>one</u> responded performance only; easy task--high ability--high aspiration, <u>one</u> responded task only, <u>one</u> responded performance only.

Some implications of a pattern which appears in these errors are considered in the next section.

To assess the effectiveness of the aspiration manipulation, the subjects were asked to indicate how concerned they were with reaching the average number of points which other students with their ability and their tasks in the first two problem periods received for all three problem periods. A sixpoint scale ranging from zero to five, with five indicating very much concern and zero indicating very little concern, was used. Although at the time of the construction of this measure we believed that it would reflect differences in concern resulting from the aspiration manipulation, we now suspect that it may not be a valid measure of such differences. As shown in Table 5, the medians range from two to three for low ability subjects.

Insert Table 5 about here

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There are no apparent effects of consistency or aspiration. Also as shown in Table 5, the medians for high ability subjects are four in all conditions but one. The tendency for high ability subjects as a group to have higher medians than low ability subjects is the opposite of what one would expect.

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## Table 5

Median Scores for Concern about Obtaining

Points by Experimental Condition

	Ex	perimental condit	tions	Median	
	Task	Ability	Aspiration	scores	
1.	Easy	Low	Low	3	
2.	Hard	Low	Low	2	
3.	Easy	Low	High	2	
4.	Hard	Low	High	3	
5.	Hard	High	Low	4	
б.	Easy	High	Low	2	
7.	Hard	High	High	4	
З.	Easy	High	High	4	

High ability should, if it has any effect at all, instill confidence and reduce concern. The fact that the reverse occurs suggests that the measure may have tapped involvement in the experiment as well as concern. Having low ability might well cause discouragement and somewhat reduce involvement in the experiment. Given these considerations and the fact that none of the subjects seemed confused during the experiment about the accumulation sheet, we are inclined to believe that the measure and not the manipulation was faulty.

Task choice. Table 6 shows the type of problems chosen by the subjects Insert Table 6 about here

in each of the eight experimental conditions. According to hypotheses 2. and 3., subjects in rows 4. and 3. of the table should have made an HE/HE choice. There was no strong tendency to do so. According to hypothesis 5., the subjects in row 8. of Table 5 should have made an HH/EE choice. Again, there was no strong tendency to do so.

These findings raise the question of whether that part of the theory dealing with specialization and despecialization is in error, or whether certain factors were present in the experimental situation which were beyond the scope of the theory. We believe the latter to be the case. One thing which may have been present is a democratic norm which discouraged the student-subjects from assigning a task to a fellow student. The theory as presently formulated does not predict how such norms may influence specialization and despecialization. Another thing which may have been present is a weighting process in which the subjects tended to minimize inconsistency by varying Table 6

Task Choice by Experimental Condition

	Experi	imental	condition			Task choice		
				HH/EE	HH	HE /HE	ĒE	EE /HH
Task	Abili	Lty As	piration	(Two hard problems for self, two easy problems for other)	(Two hard problems for self)	(One easy and one hard problem for self, one easy and one hard problem for other)	(Two easy prob- lems for self)	(Two easy problems for self, two hard problems for other
1.	Easy	Low	Low	4	5	5	1	[0] <sup>a</sup>
2.	Hard	Low	Low	0	5	7	0	[3]
3.	Easy	Low	High	1	8	[3]	3	0
4.	Hard	Low	High	2	7	[5]	0	1
5.	Hard	High	Low	2	[ 11]	2	0	0
6.	Easy	High	Low	1	[ 9]	5	0	0
7.	Hard	High	High	1	[ 13]	1	0	0
8.	Easy	High	High	[4]	10	1	0	0

a [ ] indicates choice predicted.

the weight they assigned to the bases for which points were given in the experiment. This possibility and some data relevant to it are considered in the next section.

Hypotheses 1. and 4. concerning task mobility were indirectly supported. The theory predicts that high ability subjects will choose so as to maintain or change to difficult problems and that low ability subjects will choose so as to maintain or change to easy problems. The theory also predicts that within an ability level subjects with high aspiration will choose more difficult problems than subjects with low aspiration. That there are tendencies in these directions is clear in Table 7, which is a collapsed version of Table 6.

### Insert Table 7 about here

Since we are now concerned only with the choice of task for self, the two end columns of Table 6, which had been included to measure specializationdespecialization, have been collapsed with the adjoining ones. The resulting three columns of task choices can be interpreted as a three-point ordinal scale of preference for tash difficulty. *N*ithin each ability-aspiration combination, the rows for easy and hard task have been collapsed because the task choice predictions for those rows are identical.

The rows in Table 7 are ordered as predicted above. The  $X^2$  for the table is significant at well beyond the .01 level ( $X^2$  = 19,36, df=6). Thus, certain aspects of the theory receive some support.

In spite of these comparative tendencies which are in line with the theory, it must be noted that on an absolute basis there were a large number

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# Task Choice for Self by Ability and Aspiration Treatment

			Task cl	hoice
Ability treatment	Aspiration treatment	HH/EE or HH (Two hard problems)	HE/HE (One easy and one hard problem)	EE or EE/HH (Two easy problems)
Low	Low	14	12	4
Low	High	18	8	4
High	Low	23	7	0
High	High	28	2	0

of low ability subjects who maintained or changed to hard problems. Even in the low aspiration condition, nearly half of the low ability subjects maintained or changed to an HH task. This tended to maintain and create rather than resolve status inconsistency. In the next section, we will consider why the low ability subjects may have behaved in this manner.

To summarize, the independent variables did affect task choice, producing significant differences between conditions in the directions predicted, but not in the precise manner predicted.

Satisfaction. Table 8 shows the median satisfaction scores for subjects

by ability and status consistency treatments at the end of the second problem period.<sup>5</sup> The subjects were separated by ability treatment because it was expected that high ability subjects would be generally somewhat more satisfied. As predicted, status consistent subjects are more satisfied. For low ability subjects, the difference is significant at beyond the .0001 level (U=148, Z=4.35, one-tailed test). However, for high ability subjects, the difference does not reach significance (U=397.5, Z=.57, p<.30, one-tailed test).<sup>6</sup>

Table 9 shows the median change in satisfaction scores from the second to the third problem period by movement toward or away from consistency. The

### Insert Table 9 about here

table was constructed as follows. For low ability subjects, those who had been given two easy problems and then chose either a hard and an easy problem or two hard problems were defined as moving away from consistency. For high

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### Table 8

Median Satisfaction Scores at the End of the Second Problem Period by Ability and Status Consistency Treatment

Ability<br/>treatmentStatus consistency treatmentLow+2-2(N=29)(N=30)High+2÷1(N=29)(N=30)

Table 9

Median Change in Satisfaction Scores from the Second to the Third Problem Period by Ability Treatment and Movement Toward or Away From

Status Consistency

		Movement	
Ab <b>ility</b> reatment	Toward status consistency	No movement	Away from status consistency
Low	+2	0	-3
	(N=16)	(N=18)	(N=25)
High	+1	+1	+2
	(N=30)	(N=26)	(N=3)

ability subjects, those who had been given two hard problems and then chose an easy and a hard problem were defined as moving away from consistency.<sup>7</sup> Similarly, low ability subjects who had been given two hard problems and then chose either an easy and a hard problem or two easy problems were defined as moving toward consistency, and high ability subjects who had been given two easy problems and then chose either a hard and an easy problem or two hard problems were defined as moving toward consistency. Any subject who chose the same kinds of problems as he had been given was defined as not moving.

For low ability subjects the satisfaction scores are in exactly the direction predicted by hypothesis 6 and are significant at beyond the .01 level (H=10.0, df=2). However, for high ability subjects movement toward or away from consistency appears not to be related to satisfaction scores. Some implications of these findings for the high ability subjects are considered in the next section.

### DISCUSSION

In this section we shall consider some theoretical implications of the findings. As we indicated earlier, there are some data which suggest that a weighting process may have occurred which served to minimize inconsistency between bases of status. The specific kind of weighting process we think may have occurred is one in chich the individual attributes much more weight to those bases of status which he can modify than he does to those which he cannot. This process, if it did occur, apparently is a first reaction to inconsistency and apparently, as such, eliminates to a large extent the need to employ other modes of reducing inconsistency.<sup>8</sup>

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First, we shall review instances in which hypotheses were not fully supported, indicating in each instance why we think a weighting process may have been occurring. Then, we shall present data from another study of status inconsistency which lend additional support to the weighting idea.

Hypothesis l.received only partial support and hypotheses 2, and 3, received no support because easy task--low ability subjects chose harder tasks than expected (rows 1, and 3, in Table 6 above) and because hard task--low ability subjects did not choose as easy tasks as expected (rows 2 and 4 in Table 6). One might argue that these two findings indicate simply that high status was more important to the subjects than status consistency if it were not for the fact that both instances involved both low and high aspiration treatments. This anomaly led us to inspect in greater detail the cases in which subjects had misperceived how points could be obtained in the experiment. Perception of how points could be obtained should be, of course, directly related to the subject's weighting of different bases of status. It will be remembered that the subjects were asked what the number of points obtained in the experiment depended on: only the difficulty of the tasks, only the number of correct solutions, or both of these. In terms of responses to this question, it was possible to make two kinds of errors. One would be to say only the difficulty of the tas's; the other would be to say only the number of correct solutions.

Table 10 shows the number of subjects who made errors by ability treatment and type of error. The reversal in the table is significant at beyond Insert Table 10 about here

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### Table 10

Number of Subjects Making Errors Concerning What the Number of Points Obtained in the Experiment Depended On by Ability Treatment and Type of Error

 

 Type of er.or
 Ability treatment

 High
 Lon

 Points depended entirely on difficulty of task
 1
 8

 Points depended entirely on number of problems
 5
 0

 solved correctly
 5
 0

 the .003 level (Fischer's Exact Test).

There are two striking things about Table 10. First, low ability subjects make errors entirely in the direction of task difficulty. It will be remembered that the subjects were permitted to choose a set of problems in the third problem period. Ability, however, was fixed with its induction early in the experiment. Thus, low ability subjects make errors in the direction of the base of status which they could change, namely, task difficulty.

Second, high ability subjects make errors except in one instance in the direction of correct solutions. Since these subjects could both choose problems and solve problems correctly, it might be argued that they might make errors in the direction of either task difficulty or correct solutions. However, they were permitted to choose a set of problems in only one of the three problem periods whereas, because of the high ability induction, they were able to solve problems in all three problem periods. Thus, we would argue that they would view correct solutions as the base of status they could modify more, and it is in the direction of this base that they tend to make errors.

The fact that the fourteen subjects in Table 10 failed entirely to perceive that points were given for both task difficulty and correct solutions suggests that many of the subjects who did see this weighted one of these bases more heavily than the other. We would predict, of course, on the basis of the patterning of errors that low ability subjects weighted task difficulty more heavily than correct solutions and that high ability subjects did the reserve. The former prediction would account for the fact that easy task-low ability subjects tended to choose harder tasks than expected in both the low and the high status aspiration treatments. It would also account

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for the fact that hard task--low ability subjects did not choose as easy tasks as expected in both the low and the high aspiration treatments.

The latter prediction, that high ability subjects weighted correct solutions more heavily than task difficulty, would account for the fact that, although easy task--high ability subjects tended to choose toward the HH/EE end of the task scale in both the high and the low status aspiration treatments, they do not do so as completely as they might (rows 6. and & in Table 6 above). It was these outcomes, of course, that resulted in only partial support for hypothesis 4. and no support for hypothesis 5.

We shall now present data from the other study mentioned earlier which lend additional support to the weighting idea. The study is a dissertation in progress (Nichols). The researcher doing this study performed an experiment in which he told groups of subjects that they were either all high and equal or all low and equal in ability and then placed each group in either a centralized or a decentralized communication network. He was interested in organizational consequences of these kinds of inconsistency. However, what is of importance for this paper is a finding that, in spite of the fact the researcher told the subjects that time of solutions of problems worked on in the networks and correctness of solutions had equal weight in determining their final score, a good many subjects tended to misperceive the weight the researcher gave to these factors. Out of ninety-six high ability subjects, twenty made errors. Seventeen of these were in the direction of thinking more weight had been given to correctness of solutions. Out of an identical number of low ability subjects, twenty-eight made errors. Seventeen of these were in the direction of thinking more weight had been given to time. Data for these errors are presented in the top part of Table 11.

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Insert Table 11 about here

The errors of both the low and the high ability subjects reveal clear directionalities. High ability subjects made errors in the direction of cor ectness of solutions which, because of the ability induction, they could control almost completely. They could not control time as much as correctness because of the restrictions the networks imposed on communication. Low ability subjects make errors in the direction of time of solutions. Although they could control time of solutions only partially, this probably seemed more under their control than correctness of solutions.

Additional data relevant to the weighting process is presented in the bottom part of Table 11. These data show the number of subjects making errors when asked what weight his group <u>actually</u> gave to time and correctness of solutions (irrespective of what the experimenter had said). Again, high ability subjects tend to make errors in the direction of correctness of solutions, and low ability subjects tend to make errors in the direction of time of solutions.

The  $X^2$  for errors concerning the weight the experimenter gave to time and correctness is 8.24 (p < .01, corrected for continuity). The  $X^2$  for errors concerning the weight subjects gave to time and correctness is 47.8 (p < .001, corrected for continuity).

The last finding in the present experiment to be considered is that, even when satisfaction scores were analyzed in terms of the degree to which subjects actually decreased or increased consistency, there was no clear-cut effect of consistency on satisfaction for high ability subjects.<sup>9</sup> It will

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Table 1	11	
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Number of Subjects in Nichols' Experiment Making

Errors By Ability Treatment and Type of Error

Type of	Ability tre	eatment
error	High	Low
Experimenter seen as giving greater weight to:		
Time of Solution	3	17
Correctness of solution	17	11
Subjects seen as giving greater weight to:		
Time of Solution	14	57
Correctness of solution	67	21

be remembered that, if our hypothesis concerning weighting is correct, these subjects attributed greater weight to solving problems correctly than to having a difficult task. It will also be remembered that, because of the high ability induction, they could solve problems correctly irrespective of task difficulty. This would explain why consistency of task difficulty and ability might not be of great importance to these subjects and thus would explain the finding concerning their satisfaction.

### Footnotes

<sup>1</sup>This research was supported by NSF Grant GS-687 to the senior author for study of status inconsistency in groups and organizations. We wish to express our appreciation to John H. Simpson for his assistance in a phase of the research.

<sup>2</sup>The distinction between task possession and performance as separate bases of evaluation is similar to the distinction between position and performance made in an earlier paper. See (Kimberly and Crosbie, 1967).

<sup>3</sup>For a detailed discussion of the selection of the problems see (Kimberly and Crosbie, 1967).

<sup>4</sup>The distribution was as follows: easy task--low ability--low aspiration, one; hard task--low ability--low aspiration, none; easy task--low ability-high aspiration, one; hard task--low ability--high aspiration, two; hard task-high ability--low aspiration, two; easy task--high ability--low aspiration, one; hard task--high ability--high aspiration, one; easy task--high ability-high aspiration, three.

<sup>D</sup>Because of an error in collating measures, the satisfaction measure was not given to one pair of subjects. One was in the easy task--low ability-low aspiration condition. The other was in the hard task--high ability--low aspiration condition. Therefore all satisfaction scores reported are based upon an N of 118 subjects.

<sup>6</sup>At the end of trial one the differences were in the predicted direction and significant for low ability subjects at beyond the .0001 level (U=150, Z=4.32, one-tailed test) and for high ability subjects at beyond the .002 level (U=234, Z=3.05, one-tailed test). <sup>7</sup>No high ability subjects chose two easy problems.

<sup>8</sup>Kimberly and Crosbie (1967) have shown in a recent experiment that subjects are not dissatisfied when the weights assigned to task difficulty and correct solutions are imbalanced so as to produce choices of positions which are inconsistent with ability.

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<sup>9</sup>See Table 9, above.

Kimberly, J. C. A theory of status equilibration. In Joseph Berger,

Morris Zelditch, Jr., & Bo Anderson, (Eds.) Sociological theories in progress. Boston: Houghton-Mifflin, 1966, pp. 213-226.

- Kimberly, J. C. Status inconsistency: a reformulation of a theoretical problem. <u>Human Relations</u>. 1967, 20, pp. 171-179.
- Kimberly, J. C. & Crosbie, P. V. An experimental test of a reward-cost formulation of status inconsistency. <u>Journal of Experimental Social</u> <u>Psychology</u>, in press.
- Nichols, F., <u>Status Effects and Group Organization</u>. Ph. D. thesis, Stanford University, in progress.