

AN INVESTIGATION INTO

A STATUS ADJUSTMENT PROCESS

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A THESIS

BY

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An Investigation into a Status Adjustment Process

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Scope and Contents:

The work reported on here attempts to explore a prediction derived from an extension of J. Kimberly's Theory of Status Equilibration. The extension implies that if status aspiration is high enough a person with low ability and a demanding task will seek to increase the discrepancy between status derived from ability and status derived from his task function.

An experiment to test this prediction was designed and conducted by the author.

CHAPTER I

INTRODUCTION

In accordance with the considerations and definitions set forth by Kimberly (6) we shall consider the status of a person in a social system to be composed of the evaluations that other members of the system make of that person.

It appears that an individual may be evaluated by a number of criteria, for instance, performance, special abilities, and strength of commitment ((3), pp.242-43;(6), pp. 215-17). As an example consider the status of the president of a company which certainly depends on evaluations with regard to his performance, his abilities, the nature of his dealings with others and similar factors.

Status inconsistency exists when evaluations of different rank are associated with an individual. Again, consider the case of the company president: Suppose he has inherited the company from his father, suppose that he maintains very good relations with his employees, but let us assume that it is also evident that he does not have the requisite ability to manage the company. In such a case, a status inconsistency

is said to exist due to a difference in the rank of say, personal relations and managerial ability, the former being high, latter low. (This example deals with differences in ability statuses as the basis of the inconsistency; in the work below, based on Kimberly's theory, the statuses involved will be due to ability and function.)

In this paper, when we speak of status inconsistency, we assume that an individual who experiences it is to some degree aware of it. This assumption is necessary when we consider the concept of status equilibration. The term refers to the process by which an individual experiencing status inconsistency tries to restore the agreement between the conflicting evaluations.

Research on status equilibration has been done by Kimberly (1962 and 1963) (7), as well as by Nichols (1967 and 1968) (11) and (12). The work reported on here is an attempt to follow up on the studies by Kimberly. A major formulation of Kimberly's work was published in 1966 under the title A Theory of Status Equilibration, (6). This theory attempts to deal with the processes of status equilibration in subjects under a variety of conditions in connection with status inconsistency. It makes predictions regarding the behaviour

of subjects under particular sets of conditions and the majority of these predictions have been supported by experimental results, (Kimberly, 1963, (7); Nichols, 1967, (11), 1968, (12)).

General background of the Kimberly Status Equilibration Theory

Before reviewing the Kimberly Theory in detail it will be useful to consider the foundations on which it rests. Basically there are two of these: the Thibaut and Kelley cost-reward-model of individual response (13) and, a set of ideas about status in a social system (Davis and Moore) (3).

Let us briefly consider the Thibaut and Kelley model (13). It rests on the assumption that as an individual performs a set of actions (behaviour sequence) he is aware that these actions give rise to "rewards" and "costs".

In the context of Thibaut and Kelley's theory costs are defined as factors that operate to inhibit or deter performance, rewards are defined as factors from which pleasure, satisfaction or gratification are derived ((13),p.12; (6), pp. 218-19). We may here consider an example in general terms, e.g. a man who decides on walking three miles rather than taking :

a bus. He is aware that at the end of his walk he is likely to be tired. But he is also aware that he will derive pleasure from observing the country-side. In this example the exhaustion he must expect is a cost; it will to some degree deter him from taking the walk. The pleasure anticipated is a reward; it will induce him to take this walk. If he decides for the walk we assume that the pleasures expected outweigh the costs foreseen. This illustrates the general principle that decisions are made for that course of action which promises a net gain in reward.

Two assumptions which will be shown to be relevant below are also part of the cost-reward model. One is that individuals who feel they have a relatively high degree of control over the outcome of an action will tend to focus in their perception on rewards. On the other hand, it is assumed that a feeling of lack of control over certain actions will incline the individual towards focusing on the costs associated with the actions, ((13), p. 89; (6), p. 219). Thus the individual's preoccupation with either rewards or costs, as the case may be, is seen as a basis for further action. In other words, cost and reward in a given case do not change 'value', but function differently in the decision process, depending on the orientation (either towards costs or rewards) of the person making the decision.

Let us now also briefly review the ideas regarding status, based in part on the Davis-Moore theory of stratification (3), that play a crucial role in Kimberly's theory. As indicated above, the status of an individual in a social system depends on the evaluation of the individual by the other members of the system. The theory views a social system, in general, as having a certain number of goals. If we consider only one of the goals there is a set of actions which must be performed by the members to attain the goal.

The norms governing such actions are called the "functions" of the system: The functions differ in what action and what involvement from the members they require. For instance, if at a certain point the goal of a group is to establish whether all registered members are present and it has been decided that this shall be done by calling the roll, one might consider four distinct functions: (A): calling the roll; this function could be assigned to one particular person in the group; (B): presenting oneself at the place of assembly; every member would have to perform this function; (C):listening for one's own name during roll call; this is a unique function for each member; (D): answering the roll when one's own name is called; this is another unique function for each member.

Note that, as in this example, there may be basically two types of functions: universal functions (e.g. (B)), and special functions (e.g. (A), (C), (D)).

This distinction between functions is necessary to explain the definition of a division of labour used by Kimberly. If we have a goal and a group which is to achieve it then the pattern of assignment of special functions to the group members defines what Kimberly calls the division of labour with regard to that goal, ((6), pp. 216-17). It has already been pointed out that status may be derived from a number of sources. When considering a particular division of labour, Kimberly's theory focuses on four sources of status: the function assigned to an individual; the performance quality of the individual; the general ability of the individual, and the degree of adherence to group norms by the individual, ((6), p. 216).

A status component derived from one of these sources is called a sub-status. Thus we have (special) function sub-status, performance sub-status, ability sub-status and loyalty sub-status respectively. It is important to note that (special) function sub-status is that status which is derived from being assigned special functions, whereas loyalty sub-status is derived from adherence to universal functions, ((6), pp. 215-16).

Another important consideration is that an individual is usually quite powerless to improve on his ability sub-status or his performance sub-status, ((6), p. 215). This simplifying assumption is made by Kimberly because a person cannot change the ability he is endowed with. Similarly, if we assume that he is working to capacity, his performance sub-status also is relatively independent of his further efforts since his ability level restricts his performance level.

However, function sub-status and loyalty sub-status may be subject to the individual's manipulation. If for instance, the individual can bring it about that he is assigned a different set of functions than he was originally given to execute, he has succeeded in changing his function sub-status, because he has changed the basis of that status. We recall that function sub-status is the evaluation of the individual with regard to the set of (special) functions he performs. In particular this evaluation will be based on the degree to which they are included in (or excluded from) other positions, ((6), p. 217).

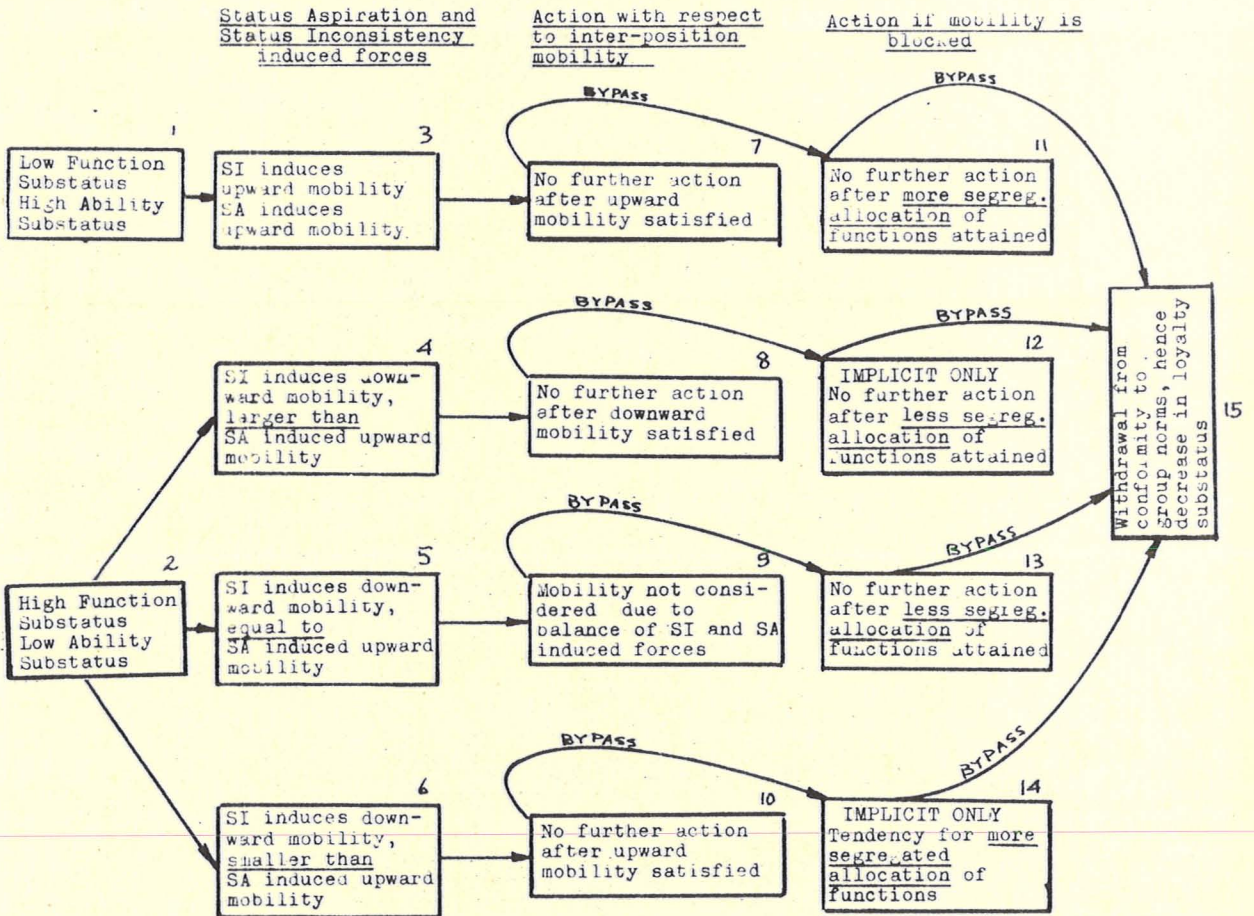
The Thibaut and Kelley cost-reward model and the set of distinctions just introduced regarding the nature and origin of status form the essential elements of the Kimberly Theory.

Characteristics of the Kimberly Status Equilibration Theory

The theory deals basically with two types of status inconsistency and the consequent responses under various conditions. The two types of status inconsistency are: (a) low function sub-status associated with high ability sub-status (e.g. a very intelligent person is given trivial problems to solve), (b) the high function sub-status associated with low ability sub-status (e.g. a dull person is given difficult problems to solve). One of the assumptions of the theory is that each person has status aspiration, that is, a tendency to act in such a manner as to increase status if possible. In a group of individuals this tendency may range from very strong in some to practically nil in others.

To show how the cost-reward model and the ideas about status and status aspiration are utilized in the theory we shall now trace the four main arguments of the theory. This will be done by listing conditions, reactions and consequences as treated in the theory. It may be convenient for the reader to use chart I in following the discussion. The essential conditions and sequences of events as predicted by the theory are given there in "graphic" form.

SCHMATIC REPRESENTATION OF RESPONSES PREDICTED
BY KIMBERLY'S THEORY OF STATUS EQUILIBRATION



First, consider an individual with low-function sub-status and high-ability sub-status, in a particular division of labour that is, a gifted individual assigned to a very easy task (1*). The easy task has little status in the division of labour. Because the individual can perform this task with a minimum of effort he feels he has relatively great control over the outcome of his actions as far as this task is concerned. According to the Thibaut and Kelley model, he therefore focuses on the rewards that are to be obtained from his actions, (cf. p. 4, above).

Inasmuch as the rewards from a low- difficulty function are assumed to be meagre, the individual will be motivated towards a position in the division of labour where the rewards from the functions are more substantial. This is termed "upward

mobility tendency". We recall also that we postulated status aspiration for every individual. This status aspiration also will induce the individual under consideration to be upwardly mobile since a more highly evaluated position is going to give him more status. Note that in this case there are two incentives for upward mobility, namely status equilibration and status aspiration. In this case they are considered as psychological pressures which are to some degree additive. This means that the combined effect of these two incentives is greater than the effect of either the mobility pressure due to status inconsistency or the status aspiration alone. This point will be dealt with in more detail in Chapter II.

If it is clear to the individual that he cannot by any means move to another position his focus on rewards will lead him to consider other alternatives. In particular, it is to be expected that he will act to redistribute functions in such a manner that his and perhaps other positions will be assigned functions in such a way as to increase the status of these positions. This may be referred to as a "more segregated allocation of functions", ((6), p. 222).

If it became evident to this individual that such a redistribution of functions is not possible, he may, if his unsatisfied upward mobility pressures are strong enough, become alienated from the system. This would mean that he would cease to conform to the norms of the group and his loyalty sub-status, as defined above, would decrease.

With regard to the high function sub-status, low ability sub-status individual the explanation becomes somewhat more complicated. We consider first the general response to this type of status inconsistency.

The individual of low ability, when confronted by a difficult set of functions, may be expected to feel that he has little control over the consequences of his actions. He likely will feel that no matter how hard he may try to perform the functions, the quality of his performance will be rigidly held in check by his own inadequate ability. According to the Thibaut and Kelley theory, we have therefore an individual who will focus on costs rather than rewards. The individual will be preoccupied with the high cost associated with the performance of the functions and will disregard to a degree the fact that rewards are also associated with such performance. Due to his primary focus on costs, he will seek to minimize them. The obvious

way in which the costs to an individual in a demanding position can be reduced, is to place him in a less demanding position. It is true that such a position will bring with it lesser reward and that thus a decrease in cost is associated with a decrease in reward. However, since the individual focuses on costs and is primarily concerned with reducing them, he to some degree disregards the fact that he is sacrificing an appreciable amount of reward.

We see therefore that the general response to this second type of status inconsistency (i.e. high function, low ability) is to seek another position in the division of labour which entails fewer costs. This tendency to seek allocation into a less demanding position is termed "downward mobility".

Now let us consider the assumption that all persons have status aspiration. A tendency toward upward mobility is seen as the consequence of this status aspiration. In the case of the low function, high ability individual, we thus have two mobility tendencies. One arising from status inconsistency, which in this case is upward and another from status aspiration which is also upward. This brings Kimberly to the notion, already indicated above, (2*), ((6), p.222) that the status inconsistency and status aspiration mobility tendencies are to some degree additive.

In the case of high function and low ability the addition concept is similarly used except that the mobility tendencies are considered to be of opposite sign. Conceiving of these tendencies as vectors we can say that the resultant is what motivates the individual. In other words, when the mobility tendencies are opposed to each other they neutralize each other to the extent that their magnitudes coincide. To the extent that tendency A is greater than tendency B, there will be a resultant tendency A-B in the direction of A.

Thus there are three types of **resultant** tendencies in the case of the high function, low ability disequilibrated individual which must be considered.

First is the case where the downward mobility tendency due to status inconsistency is clearly greater than the upward mobility tendency due to status aspiration, (3*). In this case it is held that the downward mobility is somewhat less than it would be without the status aspiration. However, the downward tendency is clearly pronounced and the individual would be motivated to follow this tendency. If the individual realizes that he cannot move to another position, his continued focus on cost will force him, if the status inconsistency is strong enough, to consider alternatives to

the previously contemplated mobility. As he will be interested in reducing costs the next best thing to downward mobility would be a distribution of functions that will incur fewer costs.

This would mean assigning some of the difficult functions which the individual now has to some other member(s). Carrying the argument one step further, the Kimberly theory assumes that if a less segregated allocation of functions cannot be brought about and the mobility tendency has thus been frustrated in two ways, it is likely that the individual will consider withdrawal from the norms of the group.

(cf (6) pp 224-225)

The second type of relation between equilibration pressure and aspiration pressure is the case where the downward mobility tendency due to status inconsistency is about equal to the upward mobility tendency due to status aspiration (4*). In this case, a blocking of mobility occurs within the individual. However, this does not mean that the focus on costs, which is assumed in accordance with the individual's low ability and hence low degree of control, is altered. Since mobility is not possible, a less segregated allocation of functions as just explained above provides a suitable alternative. Again, if this alternative is not available, the next step would seem to be the withdrawal from conformity to the group norms as also pointed out above.

This follows from the fact that in both cases (that is, in the case where downward mobility tends to clearly outweigh upward mobility tendencies and in the case where the two balance each other) a blockage of mobility may eventually be encountered. It is from this point on that the responses coincide since in both cases we have an individual focusing on cost.

The third type that may be considered is the one in which status inconsistency induces a downward mobility tendency but status aspiration is so high that the upward mobility tendency generated by it is clearly greater than the former.^(5*) We may assume therefore, in spite of the individual's focus on costs, a resultant tendency for upward mobility. Suppose now, however, that such mobility is not possible. What will be the reaction of the individual who still focuses on costs but has a very high status aspiration so that upward mobility would result if it were possible? Clearly, it may be expected that the individual will be disposed to have the arrangement of functions in the different positions changed if movement to another position as such is not possible, ((6), pp. 221-22).

We have so far dealt with what we call a "more segregated allocation" and a "less segregated allocation of functions". If the individual, whose mobility is blocked for one reason or another, is not going to be content with the status quo, he will have to choose one of these possibilities. In view of his high status aspiration and his focus on cost, which will it be? The person is above all interested in augmenting his status. A less segregated allocation of functions will not serve this purpose, however, a more segregated allocation of functions will. From what has gone before then it seems warranted to predict that a more segregated allocation of functions will in fact be opted for by an individual under the conditions just discussed. This argument is only implicitly contained in Kimberly's theory, even though it is stated here explicitly. (6*)

As a final alternative to the case just considered, if a change in the distribution of functions such as just described cannot be obtained and the tendencies in question are such as to preclude putting up with the status quo, the final solution is again withdrawal from the conformity to the group norms.

As already mentioned, the conditions just discussed and their attendant predicted responses have been summarized in Chart I for quick review. This chart also points out the general structure of the Kimberly Status Equilibration Theory.

CHAPTER II

DETAILED RESTATEMENT OF RESEARCH PROBLEM

Research work on the various response sets described has been conducted by Kimberly (6) (7) and Nichols (10). In particular, those aspects of the theory which are explicitly described by Kimberly have been investigated and generally stand confirmed. Nichols (10) and Kimberly and Crosbie (8) have demonstrated that the Thibaut and Kelley cost-reward model does provide an explanation of the psychological workings underlying the equilibration process.

One chain of responses however has not been investigated. This is the case of an individual with high function sub-status, low ability sub-status and status aspiration such that its upward mobility outweighs the downward mobility created by the status inconsistency. We recall that in this case there was a postulated upward mobility (7*).

If this mobility is blocked, the theory appears to predict implicitly a tendency toward a more segregated allocation of functions or, in the case of further blockage, withdrawal from conformity. The argument for such a prediction depends on whether or not these mobility forces, as we shall call them, can in fact be added and subtracted from each other.

Let us review the thinking that allows us to see this implication in the theory. We are postulating that status inconsistency gives rise to a downward mobility force which is like in kind but opposite in sign to an upward mobility force created by status aspiration. Are we justified in saying a) that such forces are created and b) that they are like in kind and opposite in sign? To show why we can answer this question in the affirmative, let us trace what happens, according to the Kimberly theory, under high function—low ability status inconsistency and what happens under status aspiration.

Consider first status inconsistency. We know that the person experiencing this inconsistency realizes that he has low ability. He also knows that he is placed in a position that makes rather large demands on his ability. What particular ideas or impulses does this realization create in the person regarding his future actions?

The argument of the Thibaut and Kelley cost reward model is that such a person clearly feels that he has very little control over the outcome of his actions with respect to the position in which he finds himself. That is, in the position in which he finds himself he is asked to perform a number of functions. Try as hard as he may, his efforts

will not greatly alter the quality of the actions since his low ability restricts this quality. His focus then is on cost, that is, the person in question will primarily try to act in such a way as to reduce costs accruing to him from his being in this particular position, (cf. (6), pp. 219-20). In a sense it may be said that he does not appreciate enough the rewards (perhaps high status or high monetary rewards) associated with that position to make him feel that they offset the costs. The condition of such a person, therefore, will be one of relative discomfort or "psychological pressure", hence he may seek courses of action that may relieve him of this pressure.

What are such courses of action? Evidently, the first thing that comes to mind is moving from the present position to one which does not make such high demands. As soon as this alternative is recognized, it may be expected that if the psychological pressure persists, it will in fact motivate the individual to move to another position. The position must be one which appears lower in demands, since the high demands of the present one are the cause of the pressure.

If the status inconsistency is pronounced enough there should therefore be an objectively observable tendency toward downward mobility. It may be expected also that, the more pronounced the status inconsistency the stronger will

be the mobility force. We therefore postulate: A high function—low ability status inconsistency gives rise to a "downward" mobility force and, as the status inconsistency increases so does the downward mobility force.

Secondly, let us consider the effects of status aspiration. The tendency of individuals to seek as much status as appears attainable to them in a given group situation is here postulated as generally pervasive.

Apart from common sense considerations and observations from daily life, there is experimental evidence supporting this postulate ((6), pp. 44-45). Assuming, for the purpose of this paper, the individual's tendency to augment his status wherever, whenever and however possible, what implications does this have for individuals in a situation as we consider it here? We may say that an individual in a group situation who wishes to augment his status and who finds himself in a certain position within the group which does not carry the highest status possible within the group, will consider moving to another position which does carry higher status.

In terms of the Thibaut and Kelley model discussed above this implies that there are rewards (gratifications,

satisfactions) associated with this other position, especially such factors as contribute to the raising of one's status. If we assume the affinity for status, there will be, in the individual, an impulse to put forth effort towards attaining this higher position. This too we may term a psychological pressure towards mobility, in this case an "upward" mobility force. Thus we can postulate: Every individual in a group setting will strive to attain the highest possible status within the group that appears in some way accessible to him, and this striving will give rise to an upward mobility force.

Looking at the status inconsistency process and the status aspiration process just discussed we see that these two processes give rise to mobility forces one downward, the other upward. We realize that the origins of these two forces are different, but inasmuch as they both deal with mobility, they may be said to be alike. This consideration together with the two postulates constitutes our justification for a) and b) above, (cf. p. 18).

Let us now proceed with a further examination of the reactions of our disequibrated individual. Whatever the underlying mechanisms, in both cases the individual is eventually faced with a dilemma: Due to status inconsis-

tency he ends up saying to himself: "I would like to go to a lower position and shall do what I can to achieve this". Due to status aspiration he says to himself: "I would like to go to a higher position and shall do what I can to achieve this".

When the individual contemplates action, our theoretical viewpoint thus holds that he is consciously or subconsciously saying to himself at the same time: "I want to move up", "I want to move down". At this point he is simply faced with two conflicting desires pulling him in two opposite directions. An analogy with a physical situation here seems appropriate; the resultant force will be in the direction of the bigger force and will be equal to the difference between the two forces. In other words, we intuitively say that the resolution of the conflict will be something like the addition of forces in the physical world.

Crucial to our argument is the viewpoint that the upward mobility force and the downward mobility force are secondary constructs. That is, in the case of the status inconsistency argument we have a sequence of considerations which lead to the final pronouncement: "To move to a lower position is the desirable thing; this pronouncement is made with strength a". In the case of status aspiration we have a series of considerations which lead to the final pronouncement: "to move to a

higher position is the desirable thing; this statement is made with strength b". At the moment when these pronouncements are made (consciously or subconsciously) they become the bases for further action. They assume an identity of their own and their particular genesis becomes irrelevant for further sequences of action. It is in this manner that we envisage the partial neutralization of these conflicting tendencies for mobility.

We now theorize that the individual faced with these two conflicting statements will reason somewhat as follows: "The statement (A) ordering me to attempt downward mobility has strength a. The statement ordering me to attempt upward mobility has strength b". Suppose I find that any discomfort from disobeying the statement regarding downward mobility is offset by satisfaction derived from the statement regarding upward mobility. Suppose strength b is such that, after neutralizing the discomfort from disobeying statement A I am left with a certain satisfaction from obeying the statement regarding upward mobility. (This is of course only so if the strength of the statement regarding upward mobility is "rather" more than the strength of the statement regarding downward mobility). In this case, I must strive for upward mobility with an incentive of strength b minus strength a.

Note that this final statement again stands by itself and is not dependent on its genesis. The individual at this juncture is faced with the task of attempting upward mobility regardless of the nature of his past history. If now for reasons beyond his control it is not possible for him to move to another position we think that he will propose the next best thing, namely reassigning the functions of the different positions in such a manner that more status or prestige accrues to certain positions.

This completes the explanation of the theoretical foundation of our research hypothesis. Before, however, stating the hypothesis let us briefly review our thoughts in connection with a division of labor:

In order for a group to achieve a certain goal, certain functions must be performed. These functions are classified into universal and special functions. Universal functions are those functions that must be performed by all members of the group. Special functions are those which are selectively assigned to certain members. The assignment of these special functions is called a division of labour. A set of functions assigned to a particular person in a division of labour is called his position. If the assignment of functions (that is, the division of labour) is changed to some minor degree, the

position as such is considered to remain "intact" while its content changes (slightly).

Combining these concepts with the theoretical consideration outlined above we can now state our research hypothesis in this form: In a division of labour, persons occupying a demanding position, perceiving their own ability as low, but having high status aspiration, will tend to seek upward mobility and, if such mobility is blocked, will tend to advocate a more segregated allocation of functions.

It was to test this hypothesis that we designed and executed an experiment which will be discussed in the following chapters.

CHAPTER III

DESIGN AND EXECUTION OF THE EXPERIMENT

To test the hypothesis set forth above we had to produce a design which allowed us to do basically two things:

- (a) create with the subjects the conditions demanded by the hypothesis (i.e. perception of low ability, high status aspiration, perception of blocked mobility).
- (b) find out what methods of dealing with status inconsistency were suggested by subjects under these conditions.

In practical terms all this meant that we had a design problem as given under I, II and III below:

I From a group of subjects who had indicated an interest in a group study for which they were to be paid an unspecified amount we had to "create" subjects with the following characteristics:

- 1) The individuals were to consider themselves members of a group that operated as a unit to solve a task.
- 2) Individuals were to feel that they had low ability with regard to the part of the task assigned to them.
- 3) Individuals should have high status aspiration.

II We had to find a convenient task which would be amenable to all the requirements listed above.

III As we could only attempt to create the conditions under I, it was desirable to include in our design certain tests to give us an indication whether or not the subjects were responding to our manipulations as intended.

As the satisfaction of the requirements under (I) constituted our central concern we felt that the best procedure would be to design the task (II) directly "around" these requirements. Thus we created the experimental setting in the following manner:

To begin, we made the following assumptions:

- 1) that we had a task on which members of a group could conveniently cooperate.
- 2) that the task was such that the necessary operations could be assigned to different positions within the group so that the work in no two positions was the same, — i.e. the work differed from position to position in quantity and quality or both.
- 3) that we had individuals so placed in their positions that the demands on them were obviously beyond their capabilities.
- 4) that the individual members either had high status aspiration or could be induced by us to acquire it.

It seemed that if these four assumptions could reasonably be made it remained only to put the subjects to work on the task and to observe their reaction when faced with blocked mobility. The latter could be done by inviting the subject at apparently critical points during the experiment to make suggestions regarding the further execution of the task.

Some reflection showed that, if assumptions 1) & 2) could be made to hold, 3) & 4) then were likely to present little

difficulty. Thus, with regard to 3) the subject might be given a suitably difficult task on an "ability test". By reporting to him that he had obtained a low score he could be made to believe that his ability was indeed low. This meant that the test would have to be of such a nature that the subject himself would not be in a position to question the validity of the reported score.

With regard to 4.) it was thought that special devices might be used to induce status aspiration. For instance, comments might be made to the subject praising his general performance to some degree. This could be followed by suggestions as to the desirability of higher status for him, the latter coupled with a monetary reward.

We were thus essentially faced with the problem of finding a large piece of work that could be suitably divided so that a number of persons could work on it at the same time. This division was to be made in such a way that each person could be assigned a piece of work distinct in quality and size from any other in the group, so that the requirement of uniqueness could be met.

It occurred to us that a counting task on objects of varying types (hence of various levels of difficulty) might be appropriate for this purpose. After some consideration we

arrived at the idea of having the subjects count bacteria on microscope slides. We conceived of a set of slides with different types of specimens, hence different degrees of difficulty. Such a set could be arranged in various subsets, one for each position. As such slides (or suitable reproductions) were not easily available, facsimiles of slides were prepared by means of rubber stamps, each stamp representing a different kind of bacteria. The most difficult slides would contain representations of four different kinds of bacteria, others might contain three or two or only one type. As the slides were prepared (i.e. as the bacteria were stamped on the slides) a count was kept of the number of bacteria of each type on each slide. This was recorded against the slide's serial number so that the degree of difficulty as well as the exact count for any given slide could later be established simply by reference to the list. One hundred different slides of five different degrees of difficulty were prepared in this manner. (Examples of these slides, as later used are given in the appendix).

With this assortment of slides it was now possible to lay out a distribution of work for the group. Thus it was decided that, as a group, the members should complete the counting of 16 sheets of each, type 1, type 2, type 3, and

type 4, and 15 sheets of type 5. For practical reasons the group size was set at five members allowing us to create five different positions per group. As these positions were to be of varying difficulty we decided on a distribution of work as per chart II.

CHART II:

INITIAL WORK LOAD DISTRIBUTION						
	type 1	type 2	type 3	type 4	type 5	Rate
Position 1	14	3				\$1.65
Position 2	2	11	3			\$1.95
Position 3		2	11	3		\$2.25
Position 4			2	11	3	\$2.55
Position 5				2	12	\$2.85
TOTAL	16	16	16	16	15	

For instance it is seen from this chart that the person in position 1 will be required to count 14 sheets of type 1 and 3 sheets of type 2. Similarly, the person in position 3 would be required to count 2 sheets of type 2, 11 sheets of type 3 and 3 sheets of type 4.

This design of the task proper now satisfied assumptions 1) and 2) stated above, (cf. p. 27).

At this point we should perhaps discuss a decision which we had made as to the use of our subjects. Including pilot studies, our budget allowed for the payment of sixty subjects at the rate of \$2.50 per session. With 10 subjects for pilot runs this meant we had 50 subjects for the experiment itself. As already mentioned we were planning to use groups of five persons. Thus we would have ten groups. If we arranged for five positions in each group and focused on only one position in our analysis we should have had only ten persons to report on. That is, if we focused our analysis on the person in position 3 (medium difficulty), who had equal opportunities for upward and downward mobility we would have had data from only ten such persons. Had we decided also to use data from persons in positions 2 and 4 the administration of the experiment as well as the analysis of the data would have been very substantially more complicated. It therefore was evident that, if we could somehow place all our subjects in position 3, we should maximize the number of usable responses.

The whole experiment was therefore designed to create with each subject the impression that he was the person in position 3. This was made possible by using booths (description below (8*)) and restricting each subject's communication to an exchange of written messages with the experimenter. In this way, each subject could be conveniently advised that he had been placed in "position 3".

To facilitate later analysis it was also arranged that all materials handled by the subjects (work sheets, questionnaires, suggestions slips) were to be marked with serial numbers assigned to the subjects. Four-digit numbers were chosen so that the first two digits identified the group and the last two identified the booth.

In view of the fact that we intended to manipulate the subject's perception of the experimental situation (see explanations with respect to assumptions 3 & 4) we felt it desirable to make an effort to determine the effectiveness of our manipulations. Hence we drew up three short questionnaires to test for the subject's adjustment at crucial points in the experiment.

The first questionnaire was to show if the subject thought that his ability was as low as we would have him believe. The form contained two questions, one inquiring as to the subjects' opinion regarding his score on another ability test, the other asking him to rank himself within the group on the basis of ability

The second questionnaire was intended to show: (a) whether, during the experiment the subject's perception of his own ability as "low" had been reinforced or maintained, (b) whether the subject was experiencing a desire

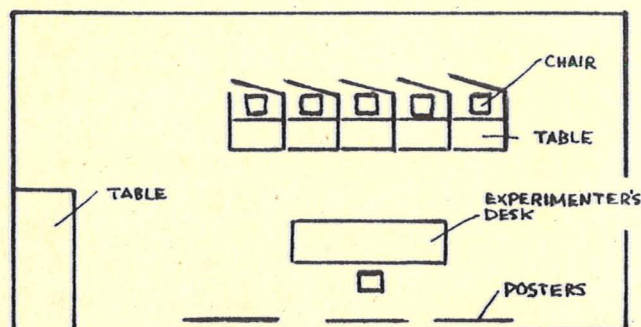
for upward mobility, (c) whether he had noticeable status aspiration. For this purpose, two questions for each a), b) and c) were posed (rotated a,b,c,a,b,c,). They were so designed that the answers would be likely to indirectly reveal the subject's condition as it concerned a), b) and c). For example the first asked that the subject indicate his preferences for the different positions. Here we assumed that the degree of the subject's preference for difficult positions would be indicative of the subject's estimate of his ability with regard to the task.

Finally, the third questionnaire was intended to elicit such background information as suspicion regarding any of the manipulations, misperceptions regarding the experimental setting and any general comments that might help in the interpretation of the individuals' data. Copies of the three questionnaire forms used are provided in the appendix.

The experiment was conducted in the Small Groups Laboratory of McMaster University. We recruited interested students from the 1967 summer school classes at McMaster and arranged them into all male and all female groups.

Five adjacent booths provided with tables, chairs and writing materials were set up for the subjects (see diagram). The partitions between the booths were approximately seven feet high and once a subject had been seated the booth was closed at the rear. Thus subjects could not see each other. The booths were open toward the centre of the room so that each subject had a clear view of the experimenter. A set of charts (chart 2; samples of bacteria) was posted on the wall facing the openings of the booths.

SEATING
ARRANGEMENT
DURING
EXPERIMENT



Subjects were seated in the booths as they arrived so that they generally could not tell anything about the person in the next booth. This seating also made it possible to maintain the impression that the group consisted of five members when at times only four persons reported

for the experiment. The booths were numbered 14, 15, 16, 17, 18 in an attempt to avoid bias. (Where positions are marked 1, 2, 3, or A, B, C etc., the first positions of such series are often considered superior to the other positions.) (10*).

Let us now briefly describe the experimental procedure as it was adopted following the two pilot runs. Including initial instructions, the administration of questionnaires, and comments by the subjects, the procedure was timed to take between one and a half and two hours. It consisted of 13 distinct steps named as follows:

- 1) Introductory Talk
- 2) Ability Test
- 3) Practice Period
- 4) Announcement of Marks and First Questionnaire
- 5) First Work Period
- 6) First Suggestion Period
- 7) Second Work Period
- 8) Second Suggestion Period
- 9) Second Questionnaire
- 10) Third Work Period
- 11) Third Suggestion Period
- 12) Third Questionnaire
- 13) Payment and Disabusal

CHART III - OVERVIEW OF STATUS ADJUSTMENT EXPERIMENT

OBJECTIVES	ASSUMPTIONS	INSTRUCTIONS
Step 1 : Introductory Talk (15 min.)A to familiarize subjects with task and experimental setting		
Step 2 : Ability Test (5 min.)E to induce in each subject perception of low ability with regard to task	The subject will concentrate on the apparently easy task but as he begins to realize his limitations he will be disposed to depend very much on the experimenter for evaluation of the work	Now you each will receive reproductions of the same slides. The slides vary in difficulty, as explained before. You are to count the number of bacteria totally or partially visible on each slide, etc.
Step 3 : Practice Period (10 min.)A to occupy subjects during "scoring" of test and to reinforce perception of the task as rather difficult	difficult practice sheet will reinforce impression of difficulty	While I score your work would you please practise counting on these sheets. It is useful to double-count some slides
Step 4 : Announcement of Marks and First Questionnaire (5min.)A to produce status inconsistency and to check for low ability perception	Having a score of 57% and occupying position 3 while the person in position 2 has 56% and the person in position 4 has 64% will make the subject aware of an inconsistency in status.	We have the following scores: 73%, 64% 57%, 56%, 54%. A follow-up test will therefore not be necessary. The person in position 3 is however only one percent point removed in his score from the person in position 2. You will now each receive a message slip with your score as well as a questionnaire which we would ask you to complete. Your score is 57% (next higher 65%) (next lower 56%) Questionnaire 1 2 questions to test for ability perception (see appendix)
Step 5 : First Work Period (7 min.)E to have subject perform assigned task so that he may make intelligent suggestions based on his experience	Pay-differentials between positions will give rise to status aspiration as subjects are likely to feel that they can improve their score	This is the work for position #3. You just managed to get #3 by a single point in your test score. Hope you keep it!
Step 6 : First Suggestion Period (5 min.)A to elicit suggestions and comments indicative of the subject's orientation	the directive to either make suggestions or to practise-count will tend to induce subjects to make suggestions	During this period please think about suggestions that may be appropriate and write them on the slips provided. It is especially important to think about the distribution of work. However if you do not wish to occupy yourself with suggestions please put the time to use by counting the enclosed slides.
Step 7 : Second Work Period (6 min.)E to have subject perform assigned task so that he may make intelligent suggestions based on his experience	Work period will give subject more experience on which to reflect when making suggestions	Here is the second part of your work, still assigned according to your initial position. Things may be different next time around after I evaluate your first round of suggestions. While the quality of your work has not improved generally, your comments so far suggest that you have good organizing potential OR Your scores are still in the 57% range, but how do you feel about coordination and suggestion leadership?
Step 8 : Second Suggestion Period (5 min.)A to elicit suggestions and comments indicative of subjects orientation		same as for suggestion period #1
Step 9 : Second Questionnaire (10min.)A to test whether the desired impressions have been created in the subjects with regard to 1) status aspiration 2) ability perception 3) mobility to other positions	Questions as formulated in Q#2 will elicit responses indicative of subjects orientation and impulses	Questionnaire 2 2 questions to test for status aspiration 2 questions to test for ability-perception change 2 questions to test for upward mobility tendency (see appendix)
Step 10 Third Work Period (5min.)E to produce impression of blocked mobility and to prepare subject for making suggestions with this additional condition	Under conditions of blocked mobility subject will be inclined to take a new look at his situation and will make suggestions accordingly	Due to other suggestions (from others) you have to stay in #3 even though you may change the nature of the position ; think what changes in the distribution of functions (if any) you would like.
Step 11 Third Suggestion Period (5 min.)A to test whether under the set of conditions now established subject will opt for more segregated allocation of functions.		same as for suggestion period #1 & #2
Step 12 Third Questionnaire (10 min.)A to elicit information regarding the subject's perceptions and attitudes which might help in the interpretation of data collected during the experiment; to check whether subjects express suspicion or otherwise give evidence of less than complete cooperation	subjects will welcome a chance to comment on the study from their point of view and to voice criticisms if they have any	Questionnaire 3 Single question: "This is the final phase of our study. Would you now take about five or ten minutes to write down your comments, reflections regarding the study as you experienced it."
Step 13 Payment and Disabusal (5 min.)A In order to retain the good will of the subjects the objective of the study is explained, manipulations are revealed and questions are answered; subjects are asked to commit themselves to secrecy with regard to the manipulations in order to protect as far as possible the integrity of future experiments.		

The objectives, assumptions, and instructions involved in each of these steps are summarized in chart 3. Here we shall outline the general ideas behind the steps and their sequence.

Step 1) Introductory Talk. This lasted about 15 minutes. Instructions were read from a prepared script by the experimenter who introduced himself as the "study-coordinator". Subjects were informed that their group consisted of five members, that a task was to be given to this group and that the members were to cooperate in solving this task. It was then pointed out that the workload of seventy-nine sheets of slide reproductions had been assigned to the five positions in the group in the manner indicated by CHART II, (11*). This chart was posted so that it was visible to all subjects. It was stated that since the five positions varied in difficulty and the abilities of the group members were presumed to vary also, the members would be given a test from which their relative ability could be estimated. We then explained that the test scores would be rank ordered and that the person with the highest score would receive position 5, the person with the next highest score position 4 and so on. Furthermore we emphasized that the pay rate for position 5 would be appreciably higher than that for position 4, similarly that for 4 would be appreciably higher than that for 3, etc. as was indicated on CHART II. This coupling of difficulty and payrate was intended to induce aspiration for the more difficult positions (12*).

Then the details of the counting task were explained. It was also pointed out that the assignment of work as per chart 2 represented only an initial measure. We stated that we expected the group to reorganize itself either by switching positions among members or switching "functions" among members (namely counting the relative numbers of slides of different types). Again, the point was made that by abandoning a difficult function a subject would lower his pay rate and by accepting additional difficulty (either more volume or more complex slides) he might raise his pay rate. Several times it was emphasized that the assignment that subjects were to receive was to be an "initial" one only and that we were interested particularly in learning along what lines reorganization would be useful and convenient to the members.

All suggestions to be made by the group members were to be written on slips of note paper provided and were to be collected and evaluated by the coordinator. It was stated that only initially the experimenter was to be the coordinator and that after some time his function was to be taken over by a member of the group. This member's duties then would be a) the counting of some difficult slides and b) the evaluation of suggestions and general coordination of group functions , (13*).

Finally, the subjects were asked not to speak to each other during the study and to submit at this point in writing any questions they might have regarding the procedure. Explanatory comments by the experimenter regarding any questions raised concluded the instruction phase.

Step 2) Ability Test. The subjects were each given identical booklets containing ten reproductions of slides. There were two reproductions of each of the five types and these were arranged in order of ascending difficulty. Subjects were instructed to count, after receiving a starting signal, the number of bacteria on each slide and to mark their count beneath each slide. They were given six minutes to work on this test. From trial counts during the design stage of the experiment it was clear that no subject was likely to complete counting of the "reproductions of slides" even once during that time span. Even if great care was used, the slides were of such difficulty that a correct count of the bacteria could not usually be obtained except through re-counting, often twice. (Subjects were not allowed to mark the slides with their pencils) Subjects were therefore faced with a sufficiently difficult task to make it impossible for them to know just how well they were doing. At the same time, the test did not at all appear very complex.

Step 3) Practice Period. When the test material had been collected after the six-minute-period, subjects were given booklets similar to the first ones and were asked to use them as practice material for counting and, especially re-counting while the coordinator was evaluating the tests. The co-ordinator then proceeded to the ostensive evaluation of the test. This involved "marking" each test and making appropriate calculations on a calculator. This took about 10 minutes. Of course, no true scores were calculated for any subject. This was neither necessary nor potentially useful since the difficulty of the test was in fact such that normally the scores would range between 10 and 30%. We assumed that the subjects were not aware of this fact, since at the speed with which they were implicitly asked to work it was hardly possible for them to assess their own ability correctly (e.g. through recounting).

Step 4) Announcement of Marks and First Questionnaire.

Subjects were then told that the scores of the individuals in the group were as follows: 73%, 64%, 57%, 56%, and 54%. It was pointed out that these scores nicely assigned the individuals to the positions 1 to 5 respectively with the exception of the 57 and 56% scores. However, it was emphasized at this point, that even though there was only a one point difference between these two scores, the person

with 56% would be assigned the lower paying position 2, and the person with the 57% would be assigned the better-paying position 3, without further testing at this point. Following this announcement, each member of the group was given a hand-written message from the coordinator, telling the subject that his score was 57%, the next higher 64% and the next lower 56%. Together with this message the subjects were given a two item questionnaire (Q. #1, appendix) designed to determine how they perceived their own ability to count bacteria in this group task. They were then asked to take approximately five minutes to answer the questions in writing.

It was our intention to enable the subjects to express themselves as extensively as they wished. Therefore, no actual time limit was set for this or any of the other questionnaires.

Step 5) First Work Period. When the questionnaires had been completed by all subjects and had been collected, subjects were given identical booklets containing slides of types 2,3 and 4 (in accordance with the proposed work for position 3, c.f. chart 2). Enclosed with each booklet was a hand-written notice from the coordinator, reading, "Work for #3. You just managed to get #3 by a single point in your test score. Hope you keep it". The booklets and notices were presented with an oral comment from the experimenter, saying that the subjects had seven

minutes to work on this group of slides and that following this work period subjects would have a period for making suggestions regarding reorganization of the work. Subjects were then given the signal to start and allowed to continue for seven minutes. At the end of this time the booklets were collected from each subject.

Step 6) First Suggestion Period. Now the subjects were instructed as follows: "During this period please think about suggestions that may be appropriate and write them on the slips provided. It is especially important to think about the distribution of work. However, if you do not wish to occupy yourself with suggestions, please put the time to use by counting the enclosed practice slides". After receiving these instructions each subject was handed a booklet of practice slides so that he would occupy himself either with making suggestions or counting. The coordinator then again occupied himself with the simulated scoring of work-booklets while he was waiting for the subjects to write out their suggestions. In this manner he waited until the last person had taken up his practice booklet and then closed the suggestion period by collecting all the suggestion slips.

Step 7) Second Work Period. After the conclusion of the suggestion period subjects were instructed orally as follows:

"Here is the second part of your work, still assigned according to your initial position. Things may be a bit different the next time around after I evaluate your first set of suggestions". Then the subjects were again given identical booklets with work suitable for position 3. In addition, near the end of this period, they were given a (standardized) hand-written memo, stressing that the individual's score had not improved but encouraging him to try his hand at the reorganization of the group (c.f. chart 3). Two different types of memos were used, the choice for a given subject depending on whether or not he had in fact made a suggestion.

Step 8) Second Suggestion Period. Instructions for this step were identical to those in the first suggestion period. Again, subjects were given as much time as necessary to complete their suggestions while the coordinator pretended to be scoring their work.

Step 9) Second Questionnaire. Subjects were then informed that they were to take a break from counting for about 10 minutes. They were asked to complete during these ten minutes a six-item questionnaire (Q. #2, appendix) which was handed to them. As mentioned above, this questionnaire was designed to test for ability perception, mobility tendencies and status aspiration. Two questions had been prepared for each of these

points. While a time of 10 minutes was suggested for the completion of the questionnaire it generally took longer. Subjects were allowed to take as long as they felt they needed in order that as much information as possible might be gained from their responses. During this time the coordinator continued the "scoring" of the booklets from work period #2.

Step 10) Third Work Period. After the completion of questionnaire #2 by all members of the group it was announced that a further work assignment would be handed out. Each subject received still another booklet with work for position #3, as well as a note reading: "Due to other suggestions (from others) you have to stay in #3, even though you may change the nature of the position. Think what changes in distribution of functions (if any) you would like". Subjects were then given five minutes to proceed with the counting of bacteria in their new booklets.

Step 11) Third Suggestion Period. Upon collection of the work booklets from the third work period, subjects were given the same instructions as for suggestion periods 1 and 2, and were also given practice booklets for the third suggestion period. Again, this period continued until the last subject had finished writing suggestions and had taken up his practice booklet.

Step 12) Third Questionnaire. (comments and general suggestions). When the last set of suggestions had been collected it was announced that due to the pressure of time the study would be terminated very shortly. Thus the subjects were asked to fill out questionnaire #3 before concluding. This sheet contained only one item asking for general comments and suggestions regarding the study. It was intended to provide an outlet for the subject's reflections and general impressions, as well as to reveal suspicion or particular pressures to which a person might have felt subjected. Again, all subjects were given time to complete this final sheet at their leisure.

Step 13) Payment and Disabusal. Upon collection of the questionnaire the subjects were paid and asked to sign a receipt. All subjects were paid \$2.50, this was \$.25 above the rate posted for position 3.

Then all subjects were released from their booths so that they could meet each other. The experimenter invited questions regarding the study and after answering these, proceeded to an explanation of the general objectives and methods of the study. In particular it was revealed to the subjects that the work was of such difficulty that even

a score of 57% was very hard to obtain and that the scores which were given to the members were in fact fabricated. It was also made clear that all persons had been working in "position 3" and, therefore, had been paid the same amount. Finally, after the experimenter had assured himself of the continued goodwill of the subjects, he asked them not to discuss the methods or objectives of the experiment with any of their friends or in general to disclose any information about the experiment that might prejudice future subjects. They were told that experiments were being run for the next two weeks and that during this period their cooperation and secrecy would be very much appreciated. Without exception, all subjects agreed to such cooperation.

EFFECTIVENESS OF THE REWARD STRUCTURE We considered that the reward structure as given in CHART II was suitable for our purposes. On the one hand, the difference of only 30¢ between the various positions was not large enough to motivate people to perform well simply for the sake of monetary gain. On the other hand, it appears to have been reasonably appropriate for persons sincerely concerned with status, especially in view of the fact that they had to consider meeting the other members of the group after the experiment.

Comments on Pilot Studies

Before concluding the description of the experimental design we would like to mention briefly the pilot studies (2 experiments) during which a slightly simpler procedure had been followed. Three changes were suggested by these experiments.

1) Initially it had not been realized that it was desirable to separate work periods and suggestion periods. Subjects were originally asked to submit suggestions as they were working. While assurances had been made that each member would receive proper credit for suggestions made while he necessarily neglected his counting, it seemed that subjects were uneasy about spending their time on , what was to them, possibly unproductive thinking and tedious writing while they might be improving their "accuracy score". It was therefore decided that clearly designated time periods should be used for the making of suggestions.

2) As it happened that some subjects felt they had little to suggest it was likely that during the assigned suggestion periods there would be people who felt they had nothing to do. We therefore introduced the idea of "practice" during the suggestion period with the general directive: "either suggest or practise!"

3) Another modification which was suggested through the pilot studies concerned the form of the directive during the second work period. This directive was intended to stimulate the subject's status aspiration. In its original form it referred to the subject's responses during the previous part of the experiment. However, some of the subjects did not make comments that might be referred to in connection with status aspiration. We therefore had to introduce another standard form of directive to be used in those cases. The text of both forms is given in chart 3 in column 3 of Step 7.

CHAPTER IV

ANALYSIS OF EXPERIMENTAL RESULTS

A total of forty-six persons participated in the experiment. Fifty persons were contacted but some of these did not report for the assigned study session. Thus a number of groups were run with members missing. However, the experimental design was such that the illusion of a five person group could always be easily maintained (c f. p. 34 above).

Twenty-five of our subjects were males and twenty-one females. The ages of these persons ranged from 19 to 55 years. They had been recruited from summer school classes and were either regular students picking up extra courses or teachers attending summer school.

Our experience with other small group experiments had indicated to us that in groups of mixed sex the experimental data were significantly distorted due to the subject's attention to the sex of the other group members to the detriment of his attention to the experimental conditions, (14*). We therefore decided to keep our groups homogeneous with regard to sex, scheduling five all-male groups and five all-female groups. Data for each person were collected by means of three questionnaires, a set of written comments and suggestions, and a sheet on which the experimenter occasionally made notes regarding the behaviour of a subject if he observed something potentially significant for the analysis, (e.g. anxiety, lack of attention).

An analysis sheet was prepared for each of the subjects in the following manner: First, on a printed form containing a set of numbered cells (copy in appendix) a set of questions was entered, one per cell. These questions were to be answered for each subject by entering on another copy of the same form (this time without questions) pertinent information from the questionnaire and comment material in the cell appropriate to a given question.

We were interested in establishing a) if the conditions of the hypothesis had been met in the case of the subject b) if they had been met, what course of action the individual suggested, c) if they had not been met, what factors might account for this. Accordingly, the following items were formulated and entered in the cells of the master analysis sheet.

With reference to Questionnaire #1 and messages if any:

- a) Are the answers to these questions, which probe for ability perception consistent and what do they indicate about the subject's opinion of his ability?

With reference to Questionnaire #2 and messages if any:

- b) Are the two answers to the questions regarding ability perception consistent and what do they indicate?
- c) Are the two answers to the questions probing for status aspiration consistent and what do they indicate?
- d) Are the two answers to the questions regarding mobility tendencies consistent and what do they indicate?

- e) Is there any evidence of suspicion on the part of the subject?
- f) What type of re-allocation of functions does the subject suggest during the final suggestion period?
- g) Does the subject make other significant suggestions?

With reference to Questionnaire #1, Questionnaire #2, Questionnaire #3 and messages if any:

- h) Are special characteristics of the subject's approach and attitudes suggested by any of the answers?
- i) Does the subject clearly perceive his ability as low?
- j) Does the subject clearly have a marked status aspiration?
- k) Does the subject clearly show an upward mobility tendency?

As will be noted, the replies to questions a) to g) except f) form a basis on which i), j) and k) can be answered. If we received affirmative answers, for a given subject, to i), j), and k) and took into account the directive regarding blocked mobility (step 10) we assumed that this subject met the conditions of the hypothesis. We could then consider whether this subject's recommendations regarding the redistribution of functions met with the prediction of the hypothesis.

In this manner we divided our subjects into two groups, those who clearly satisfied the conditions demanded by the hypothesis and those who did not. Let us discuss these two groups in turn:

Out of the forty-six subjects that participated in the experiment, twenty-nine satisfied the conditions of low ability perception, pronounced status aspiration and upward mobility tendency. Of these, seventeen were male and twelve female. We classified these respondents into three categories according to their suggestions with regard to the re-allocation of functions. The three categories were:

1. More segregated allocation of functions
2. Less segregated allocation of functions
3. Satisfied and no comment.

where "more segregation means an increase in average difficulty of the work and/or an increase in volume, and "less segregation" means a decrease in average difficulty and/or a decrease in volume.

The distribution of responses is summarized in the following table:

<u>Response Type</u>	<u>17 males</u>	<u>12 females</u>	<u>total 29</u>
more segreg. allocation of functions	3 (18%)	4 (33%)	7 (24%)
less segreg. allocation of functions	2 (12%)	4 (33%)	6 (21%)
no comment and those expressing satisfaction	12 (70%)	4 (33%)	16 (55%)

We see from this table that our hypothesis cannot be affirmed on the basis of the present data. Preferences are about evenly divided as regards more and less segregated allocation of functions in both the male and the female group.

Let us comment briefly on the characteristics of the different sections of the table as revealed by the written comments of the subjects.

Male, advocating more segregated allocation
(2418, 2316, 2314). These members show initiative and aggressiveness in their comments .

Male, advocating less segregated allocation
(2318, 2018). Both these members commented that they appreciated the privacy of the experimental setting and they also were eager to develop their counting ability.

Male, satisfied or no comment (1918, 2014, 1917, 1915, 1914, 2315, 2017, 2015, 2417, 2218, 2215, 2414). No particular common characteristics for this group were evident. However, we should perhaps not disregard the fact that certain groups seemed to be over-represented (15*)(the group number is given by the first two digits of the identification number).

Female, advocating more segregated allocation (2117, 2518, 2516, 2515). Again, we cannot overlook the over-representation of group 25. Evidence from the responses by these four persons lets them appear as very conscientious and attentive workers (16*).

Female, advocating less segregated allocation (1814, 2116, 1815, 2617). These subjects showed no particular common characteristics.

Female, satisfied or no comment (1817, 1816, 2118, 2616).

The work of these subjects was characterized by close attention, ambitiousness, as well as preference for the highest position in the group.

One observation that can be made about this information stands out in particular. It is that the attitudes (initiative, aggressiveness) noted for 2418, 2316, 2314 may to some degree account for their tendency to seek more segregated allocation of functions. That is, it seems plausible that aggressive persons and persons with initiative will particularly seek more difficult assignments, (in this case more segregated allocation of functions) in almost any situation.

Similarly, concerning the less segregated allocation of functions, the tendency of the males who sought this change (2318 and 2018) may be related to their tendency to seek a less strenuous environment (privacy, more competence). It seems possible that these personal characteristics rather than the experimental conditions evoked the particular recommendations of these subjects. Unfortunately, for the purpose of making a decision regarding our research hypothesis, these considerations obscure our findings.

We now come to an account of the cases that we were not able to include in the above analysis for various reasons. These reasons are discussed below. As an introduction to the discussion we may consider the following summary:

Eliminated because of:

subject's suspiciousness	1
confusion and lack of status aspiration	2
conflicting indications regarding mobility and status aspiration	2
lack of status aspiration and declared downward mobility	3
suspicion and conflicting indications of intent	1
status aspiration without wish to be mobile	1
neither status aspiration nor mobility	3
markedly low status aspiration	5

First, the data from only one person had to be eliminated because he was suspicious. This person had chosen not to co-operate during the first work period and when he was advised (as was everyone) that his score during that period was essentially the same as before, he had become convinced that the work and the scores did not matter. He pointed this out during the disabusal period. During the experiment he had made some comments strongly suggesting suspicion. The experimenter had tried to allay this suspicion, not realizing, however, that the subject in this case had by means of a "test" of his own arrived at the conclusion that could not be reversed. (17*)

There were a number of subjects whose responses were such that the data did not qualify for testing our hypothesis since the conditions of the hypothesis did not seem to be fulfilled:

There were two male subjects (2214 and 2216) whose questionnaire responses indicated that they were not interested in gaining status. There was evidence in both cases that the subjects were confused, (18*) (neither of them made suggestions as far as more or less segregated allocation of functions was concerned).

Two other males (1916 and 2016) gave conflicting answers to the two questions about status aspiration and the two questions about mobility tendencies, (19*) Here both subjects felt very apprehensive about the experimental setting. (Neither of them made suggestions about more or less segregated allocation of functions).

Subjects 2415, 2217 and 2416 all gave indications that on the one hand they had no particular status aspiration and on the other they were interested in downward mobility. Again, neither of these made suggestions regarding allocation of functions. These were cases where subjects apparently were overwhelmed with a consciousness of their inadequacy.(20*)

Among the female subjects there was only one (2514) whose answers to questions regarding status aspiration and mobility tendencies were conflicting and for that reason could not be used. (In addition, this subject also stated on Questionnaire #3 that she had felt suspicion "about the counting not being very important" all throughout the experiment.)

One person (2618) showed status aspiration but no tendency toward mobility. Apparently the restricted communication of the setting made this person uneasy. She commented

twice on this, and was therefore eliminated.

Subjects 2716 and 1818 showed that they had neither status aspiration nor upward mobility tendencies. The one subject was apparently overwhelmed by the difficulty of the task; the other subject was extremely willing to cooperate but strongly expressed that it did not matter what work she would have to do or how much. She simply was willing to work to capacity without asking for any special consideration or reward.

Subject 2615 showed upward mobility as predicted but it is not quite clear whether this resulted from status aspiration. In fact, it is not quite clear whether there is a distinct status aspiration for this subject. The subject advocates a more segregated allocation of functions in accordance with the research hypothesis. However, we are choosing not to include this case among the set of subjects who satisfy all the conditions of the research hypothesis because of the doubt about status aspiration (21*).

The five remaining female subjects were identified as having low status aspiration and could therefore not be used to check our hypothesis.

in the short run, to be recognized and admired by the other members of the group, were he to accept a more difficult position or more difficult functions. In other words, there seemed to be two basic disadvantages to the use of isolation in this experiment, firstly, the possibility of introducing a measure of distrust and insecurity, and secondly, the limitation placed on the exploitation of some of the rewards that go with increased status. While the experimental data as such do not point to any pervasive difficulties stemming from either of these two sources, it appears likely that the design could have been improved (at least with regard to the creation of status aspiration) had isolation not been such a prominent element in the experiment.

EFFECTS OF MANIPULATIONS Three points in particular, as

regards the manipulations, seem to deserve discussion.

The first of these is the message to the subjects that they had received a 57% score during the ability test while the highest score was 73%. In view of the fact that the subjects did not often get much further in their counting than the fifth or sixth slide out of ten, this could only be construed to mean that the score was measured against an average score. However, this interpretation would make the subjects' score

very low indeed, and, in addition, reference to the others' scores obtained would show that all scores had stayed substantially below average. While it need not be supposed that subjects necessarily analysed matters so closely, even partial recognition of these implications might have created some undesirable confusion.

Another concern might arise regarding the form of the directive to reorganize. We recall subjects were encouraged to make suggestions and "to think especially about the redistribution of work". Perhaps other means than the directive from the experimenter could have been used to get the subject thinking along these lines. In this connection a check list of various choices of function was considered. The use of such an instrument was not considered appropriate however, since it was thought to interfere with the intended impression of spontaneity of the experiment.

EFFECTS OF TASK STIMULUS It appears that the task of counting bacteria in such numbers as was expected of the subjects was somewhat too difficult. Subjects were not in a position to aim for perfection in their work or to relax. In view of the volume of slides handled, subjects might easily have become disenchanted to some degree with the task. This would in turn have dulled the subjects' capacity to respond to the instruction asking for reorganization.

These considerations indicate that a better experimental design would have to include analysis of these and similar factors and changes based on the findings.

Summary

The experiment was designed to test one particular implication of Kimberly's theory of status equilibration. The research hypothesis stated that persons within a division of labour and experiencing status inconsistency due to a perception of low ability would, if they also experienced high status aspiration and saw their mobility blocked, advocate a more segregated allocation of functions. While we intended to produce the prerequisites of the hypothesis in all subjects, by means of the experimental setting we were successful in this only in twenty-nine out of forty-six subjects.

Of the twenty-nine persons who satisfied the conditions of the hypothesis, the majority (16) chose not to comment on the distribution of work. The responses of those who did comment appeared evenly divided between those favouring more segregated allocation of functions. It appears that the experiment did not emphasize strongly enough the creation of status aspiration. Had a stronger status aspiration been produced in the subjects, they might have been more outspoken regarding re-allocation of functions.

FOOTNOTES

- 1* cf. discussion, Kimberly (6), pp. 219-220; also cf. chart I, sequence 1-3-7-11-15
- 2* cf. p. 11 above, also p. 19 ff.
- 3* cf. chart I, sequence 2-4-8-12-15
- 4* cf. chart I, sequence 2-5-9-13-15
- 5* cf. chart I, sequence 2-6-10-14-15
- 6* cf. discussion, Kimberly (6), pp. 221-222; also cf. op. cit. p. 225: more formally, this result would seem to follow when we combine derivation B and hypothesis 3. The former implies that in this case there would be a tendency for upward mobility, the latter states that if upward mobility is blocked it is likely that a more segregated allocation of functions will be sought.
- 7* cf. chart I, sequence 2-6-10-14-15
- 8* cf. p. 37 below
- 9* We assumed that at this point status aspiration was not yet as strong as we hoped to make it. In addition, we chose the questionnaire items so as to minimize the influence of status aspiration.
- 10* I am indebted to Professor F. W. Nichols for these considerations. Effects such as mentioned here had been found to complicate data in some of his own experiments.
- 11* cf. p. 33 above
- 12* It was assumed that a person would be reluctant to work in a position at \$1.65 or \$1.95 if he knew that others were getting more. Since the subjects probably expected to meet each other after the experiment they would expect to exchange information regarding their positions. In such an exchange the pay differences might be expected to derive their real importance from the connotations that usually go with rates such as we were using (eg. \$1.65 - rate for labor, \$2.85 - rate for skilled work etc.)

- 13* The prospect of becoming coordinator was to serve as an additional stimulus to status aspiration.
- 14* This was shown in some Small Groups experiments, conducted in 1966/67 at McMaster under Professor F. W. Nichols, with which the writer assisted, (12).
- 15* i.e. we have four members of group 19 and three members of group 20. The question arises whether in these groups some yet unrecognized influence induced the pronounced acquiescence of the subjects.
- 16* Typically these subjects made such comments as: "I would like to be the coordinator's assistant because organization work appeals to me, yet the responsibility of being the coordinator seems over-whelming" or "I was very anxious to get my test score rating..." or again: "... I would do it, depending on what is expected of me".
- 17* During one of the work periods he did not count at all but put down random numbers. Since he received the same score as before, he concluded that counting did not matter.
- 18* The subjects' remarks indicated that there were misperceptions regarding the function of the coordinator and the mechanics of the reallocation of functions.
- 19* Subject 1916 indicated a preference for the next lower position and at the same time was interested in coordination work. Subject 2016, similarly showed interest in coordination but on other responses indicated a preference for his present position.
- 20* Sample comments: "I feel my method of counting would bring only average efficiency... the leader should judge the distribution of work."; "At the present I feel I could not fill the position adequately."; "I would be satisfied to move to position 2 if my score indicates the wisdom of such a move."
- 21* This subject by far preferred the next lower position, yet she stated elsewhere that she wanted to move to position 4 for "more challenge".

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APPENDIX

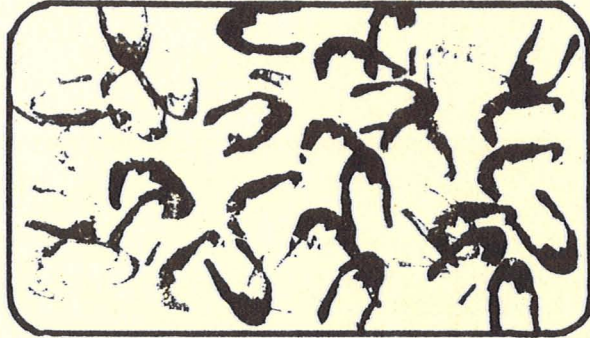
INSTRUMENTS USED DURING EXPERIMENT

Samples of Slides Used During Experiment

Questionnaire Items

Typical Layout of Analysis Sheet

SAMPLES OF "SLIDES" USED DURING EXPERIMENT



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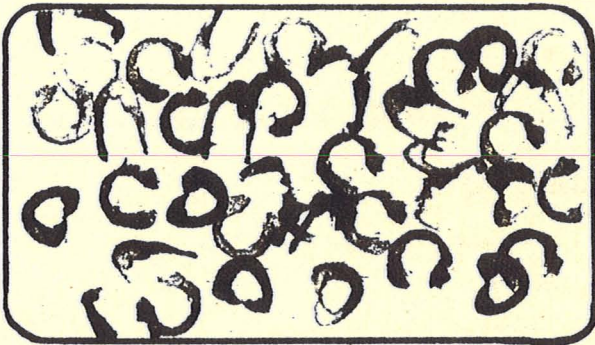
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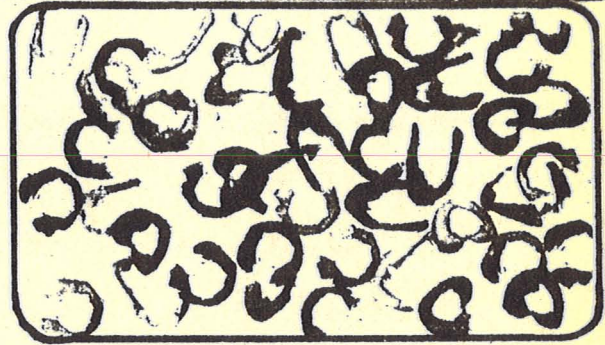
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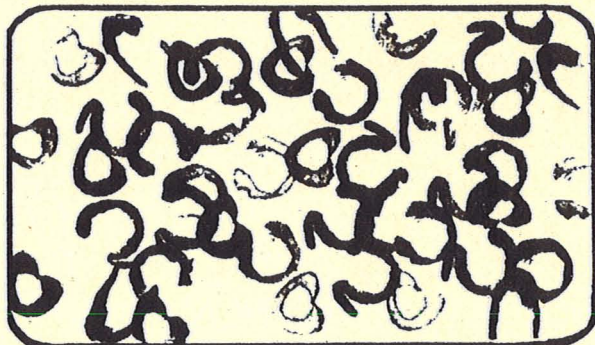
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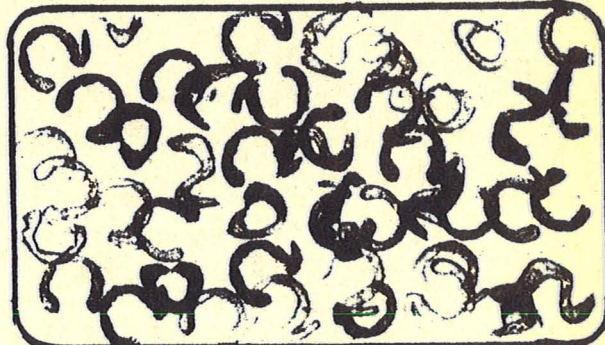
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QUESTIONNAIRE # 1.

Please answer the following questions carefully and feel free to make any pertinent comments. You have ten minutes to answer these six questions.

Your serial number:

.....

1) Indicate by a score between 1 and 10 how much you would like to work in each of the five positions listed

Position 1	Base your score on your
2	familiarity with the work
3	as well as your personal
4	preferences
5	

A very high score is to mean that you would very much like to work in the position, a very low score is to mean that you would rather dislike working there.

2) Based on your experience with the different types of counting work so far, indicate what sort of score you would expect to get now if you were to take another ability test. Discuss if you like.

QUESTIONNAIRE # 2, PAGE ONE

Please answer the following questions carefully and feel free to make any pertinent comments. You have three minutes to answer these two questions.

Your serial number:

1) Based on your test and practice experience so far, what do you think you would now score on another ability test?

2) On the basis of ability with respect to the task before you, how would you place yourself within your group? Indicate your answer by a number between 1 and 5; 1 is to mean lowest, 5 is to mean highest. Do not hesitate to express your confidence if in spite of your test result at the first trial you feel you are rather good at the task. By the same token, if you feel luck helped you with your score try to honestly assess your true position. State your considerations please.

QUESTIONNAIRE # 2 , PAGE TWO

Your serial number:

.....

3) Suppose the functions within the different positions could not be redistributed, to what position other than your present one would you like to move? Give your reasons.

4) Would you like to be coordinator or his assistant for this group? Give your reasons.

5) What average score for accuracy do you think you will get in the work you have just completed?

6) Suppose the position of assistant to the coordinator involved no additional pay, only additional duties, with, however, the chance of succeeding the coordinator should his position become vacant. Under these conditions, would you be interested in assuming the the additional duties of being his assistant? Discuss.

QUESTIONNAIRE # 3

Your Serial Number

This is the final phase of our study. Would you now take about five or ten minutes to write down your comments , reflections, and suggestions regarding the study as you experienced it.

TYPICAL LAYOUT OF ANALYSIS SHEET

01			02		
03			04		
05			06		
07			08		
09			10		
11			12		
13			14		
15			16		
17			18		
19			20		
21			22		
23			24		