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Latent Motives, Group Discussion, and the  
"Quality" of Group Decisions in a  
Non-objective Decision Problem

by

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**Latent Motives, Group Discussion, and the "Quality" of Group Decisions in a Non-objective Decision Problem<sup>1</sup>**

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One of the classic problems of group problem-solving research involves a comparison of the quality of group and individual decisions. It is well known that, provided the criterion involved is such that individual judgments tend to cluster around it with random errors (of whatever magnitude), averaging and majority decision procedures will tend to make group decisions more accurate on the average than individual decisions. Pooling of either sort reduces random variation around the criterion. In addition, Thorndike (4) and Timmons (5) have shown that the improvement of group over individual judgments is sometimes greater than would be expected simply through the effects of averaging and majority pressure.

The problems posed to the groups in such studies have generally had answers that were unambiguously correct within the framework of general scientific standards of proof. Usually this has meant mathematical or logical problems, although Thorndike included a number of judgments where correctness was defined in terms of ratings on the part of expert judges. As one explanation for the better quality of group decisions in explicitly factual questions, Thorndike suggested a distinction between the ability to devise a solution and the ability to evaluate a solution suggested by another, and argued that in such questions "there is a certain inherent logic and plausibility in the right choice which make it more possible to build up a good argument on that side" (4, p. 360).

The hypothesis that one of the factors involved in group decision-making is the evocation of alternatives (or other relevant considerations) that are easily recognizable as decisive by individuals who are themselves unlikely to discover them unaided appears also to have been made by Timmons. Similarly, data from Shaw's early experiments (3) indicate that effective discrimination between "correct" and "incorrect" suggestions offered in the group is a character-

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istic feature of group problem-solving. Thorndike suggested that this factor could operate only in problems similar to mathematical ones, where standards of proof are probably more widely shared than are inventive abilities. However, the rules of mathematical proof and inference are not necessarily more persuasive to group members than are other commonly shared norms concerning acceptable solutions to judgmental problems, and it is relevant to inquire into the "quality" of group decisions in areas that are traditionally considered non-objective, but in which there are shared judgmental norms.

It is reasonable to expect this to be particularly important where unconscious motivations are involved in individual judgments. Since shared latent motives will tend to be made manifest for all members of the group once they are manifest to any member, we predict that group decisions on problems involving unconscious motives will be more consistent with generally accepted social norms than will individual pre-interaction opinions, even after the effects of averaging and majority influence are eliminated. Since the hypothesized mechanism is not one of social pressure in the usual sense, we predict further that individual post-interaction judgments will also be more consistent with such norms than pre-interaction judgments.

A test of the hypotheses was made by asking subjects to rate the relative beauty of five females on the basis of a set of photographs and then to reach group decisions on a ranking. One of the five photographs was identified independently as appearing more overtly sexual than the others, and the differential treatment of that alternative by individuals and by groups was analyzed.

#### METHOD

##### *Subjects and Materials*

Seventy-one male undergraduate students were divided into ten five-man and seven three-man groups. The five photographs used were secured from a modeling agency, and were pictures of the head and shoulders only. One of the five was distinguished according to a criterion of apparent sexual availability (i.e., the probability of making a favorable response to overt sexual advances) in this way: Ten faculty members in the behavioral sciences were asked to rank independently the five photographs according to the "sexual availability" criterion. Their rankings indicated quite general agreement with respect to the most available female, but relatively little agreement as to the ordering among the other four. Specifically, the rankings showed significant agreement (concordance) by Kendall's test (2) so long as the highest ranking alternative was included. The level of concordance was not significant when the rankings of the other four photographs alone were considered. The highest ranking photograph thus identified is treated below as the critical alternative.

##### *Procedure*

Subjects were given a booklet containing the five photographs and asked to rank them privately according to a criterion of "beauty." No additional definitional help was provided either in the instructions or by the experimenter. Once the individual judgments were recorded, the experimental group was placed in a separate room and subjects were instructed to arrive at a ranking agreeable to all group members. The group sessions were observed through a one-way mirror, and this fact was known to the subjects. After the group reached a decision, the subjects were asked to record their post-interaction judgments.

##### *Analysis*

To compare pre-interaction individual ratings of the critical alternative defined above in terms of her greater apparent sexual availability and the treatment of the same alternative by groups and by individuals in their post-interaction judgments, we treat the rankings as four paired comparisons between the critical alternative on the one hand and each of the four alternatives on

TABLE 1  
*Effect of Pre-interaction Alignment on Group Decision, by Size of Group*

Group Size	Pre-interaction Alignment of Group Members	Number of Times		Total	Per Cent of Times Group Rejects Majority Position
		Group Adopts Majority Position	Group Rejects Majority Position		
5	3-2 majority against critical alternative	9	0	9	0.0
	3-2 majority for critical alternative	4	5	9	55.5
	Total	13	5	18	27.7
3	2-1 majority against critical alternative	12	1	13	7.6
	2-1 majority for critical alternative	5	2	7	28.5
	Total	17	3	20	15.0

TABLE 2  
Pre- and Post-Interaction Rankings of Critical Alternative by 71 Subjects

Ranks Assigned	Rank Assigned Prior to Interaction				
	I	II	III	IV	V
Rank assigned after interaction					
I	5	0	0	0	0
II	3	6	4	1	0
III	1	4	10	1	0
IV	0	2	6	10	2
V	0	1	2	4	9

the other. Since the groups, in general, tended to accept the pre-interaction position taken by a majority of group members with respect to these judgments, we wish to control for the effects of majority pressure and thus for the more standard forms of social pressure. Moreover, where the majority was 4-1 or 5-0 in the five-man groups or 3-0 in the three-man groups, the confirmation of the majority positions by the group was virtually certain. In view of these facts, we focus here only on cases where there existed bare majorities (i.e., 3-2 or 2-1).

#### RESULTS

We test the null hypothesis that the probability that a group will adopt the majority position in a case involving the critical (sexual) alternative is independent of whether the majority is in favor of or opposed to the critical alternative. The relevant data are presented in Table 1. The test of significance is due to Cochran (1), and permits the rejection of the null hypothesis at the .01 level. The treatment of the critical alternative by groups is significantly more negative than the initial treatment by individuals.

Similarly, individual private judgments made after the interaction tended to rank the critical alternative lower than did pre-interaction individual judgments as is indicated in Table 2. The null hypothesis that the direction of individual shifts in ranks assigned to the critical alternative is equally likely to be positive or negative can be rejected at the .05 level by the sign test. Thus, private reactions of individuals to the critical alternative are significantly more negative after the interaction than they are initially.

#### DISCUSSION

The rejection of the hypothesis of independence leaves a number of alternative explanations. In particular, we need to examine some alternatives to the

assumption that there is something about the critical alternative that leads to the observed behavior. These hinge upon the question of whether the observations violate the independence requirements of the test model. Since the unit of observation in Table 1 is the paired comparison rather than the group, results from a single group may enter into that analysis as many as four times and as few as none. The procedure of sampling is analogous to sampling with replacement (in which, of course, a particular item may enter into a sample as many times as the sample size or as few as none). The relevant question is not whether such an event could occur but whether it is a tenable hypothesis that the occurrence of such an event affected the results. In formal sampling with replacement, the question is whether a single item or subset of items, drawn repeatedly, substantially biases the estimates. In the present case we ask whether the results are substantially dependent on a particular group or small subset of groups. Inspection of the data indicates that such is not the case.

The evidence suggests that some feature of the critical alternative affects decision-making within the groups. The fact that, in a non-objective decision-problem, it is possible to distinguish an alternative that is relatively difficult to defend in a group situation suggests two possible mechanisms of social influence. One derives from the public character of decision-making in a group situation as contrasted with the private individual judgments and the well-established pressures that lead to a public distortion of private opinion when it is socially unacceptable. Although such a mechanism is undoubtedly present here and will explain part of the results, we do not believe it explains the data completely for two reasons. First, the subjects knew at the time they made their pre-interaction judgments that they would have to defend their opinions in the group. Consequently, it is reasonable to expect them to tend to record their "public" opinions at the outset. Second, in the post-interaction judgments the pressure toward social conformity implicit in a group discussion was no longer overt and, under the public-private hypothesis, we should expect a tendency to revert to private opinions. Admittedly, there are alternative explanations for these phenomena. All we allege is that the interpretation below is reasonable.

We believe that a major influence mechanism involved in this case is the evocation of a criterion of evaluation (illegitimate sexuality) that is not consciously considered by many subjects prior to the group interaction, but which, when called to their attention, is recognized as decisive by them. Such an interpretation is consistent with the results indicated above and with our impressions of the way in which the groups tended to reach decisions with respect to the critical alternative. In observing the group interactions, one is struck by the extent to which reference in the discussion to the overt sexuality of the critical alternative appears to bring about recognition of the illegitimacy of the

unconscious motivations underlying the attribution of "beauty" to that alternative and consequently a shift of opinion.

Such a shift appears to stem from a form of influence that is different from simple social pressure. In the latter case, shifts are conceived primarily as adjustments to interpersonal disequilibria within the group. In the present case, we observe behavior similar to that of subjects considering objective problems. Shifts in opinion appear to reflect a movement toward greater internal consistency between the specific decision of an individual and his conscious value system. This movement toward consistency is facilitated by the exchange of suggestions, criteria, etc. in the group, since such activities serve to extend the framework within which alternatives are evaluated. Thus, group discussion results in an increase in intra-personal consistency and, in the case of widely shared norms, an increase in the social "correctness" of decisions.

#### SUMMARY

In a study of group decision-making, support was found for the prediction that pre-interaction individual judgments would be less consistent with widely shared norms than would be either group decisions or post-interaction judgments by the same individuals. In a task involving ratings of female "beauty" from photographs, the probability that a group operating under a unanimity rule would adopt the pre-interaction judgments of a majority of its members depended on whether that majority was in favor of a critical alternative identified independently as exhibiting significantly greater manifest sexuality than the other photographs considered. In addition, individual post-interaction judgments exhibited the same tendency, down-grading the critical alternative. These results are interpreted in terms of an extension of Thorndike's observations on group problem-solving in an objective situation. In general, it is argued that the evocation of alternatives and socially-defined criteria for evaluation represent important modes of interpersonal influence, the net effect of which is systematically to bias group decisions and post-discussion individual decisions in the direction of conformity to accepted standards of correctness, where such standards exist.

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