

The veridicality of subjective estimates of relative risk*

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The veridicality of subjective estimates of relative risk was examined on two Choice Dilemma Questionnaire items. The results indicated that although, on the average, individuals view themselves as riskier than their peers, the Ss could be divided into three groups—those who saw themselves as riskier (R), the same as (S), or more cautious (C) than their peers. Comparisons of the mean levels of risk advocated by Ss in each group indicated that the perceptions of relative riskiness of Ss in the R and C groups were veridical. Ss in the S group were significantly more cautious than they realized. This pattern of results suggests that the risky shift may be accounted for through conformity or attitude changes related to a social comparison process rather than the mechanisms postulated by the social value hypothesis.

A widely accepted explanation of the risky shift phenomenon at present is Brown's (1965) social value hypothesis or some variant thereof (Madras & Bem, 1968; Pruitt, 1969). Basically, this explanation of the risky shift assumes that (1) in a wide range of situations in our culture risk is valued and (2) individuals like to see themselves as riskier than their peers. The shift toward risk comes about because during the course of a group discussion, the typical group member finds that he was not as risky as he had imagined. Thus, he shifts toward the acceptance of greater risk to accommodate the new frame of reference provided by the group discussion and to maintain his self-image. The converse is presumed to hold in those situations where a cultural norm of caution is dictated.

Most of the support for the social value hypothesis is indirect, stemming from studies in which it can account for results not predicted from competing hypotheses. The direct support for the assumptions of the social value hypothesis stems chiefly from three studies (Levinger & Schneider, 1969; Pruitt, 1969; Wallach & Wing, 1968), which compared the preferences of Ss and those they assumed their peers would have made on the Choice Dilemma Questionnaire (CDQ) (Kogan & Wallach, 1964). Wallach & Wing (1968) found that, on the average, individuals tended to recommend riskier decisions than they thought their peers would have recommended. This finding was replicated by Levinger & Schneider (1969). In addition, Levinger and Schneider found that on "risk norm" CDQ items, the Ss'

"most admired" choices were significantly riskier than their own choices. On the "caution norm" items, there was a trend in the opposite direction. Pruitt (1969) found that Ss tended to label their own choices as risky on the "risk norm" CDQ items but that only a minority of Ss did so on the "caution norm" items. The general pattern of results reported in these three studies tends to support the main assumptions of the social value hypothesis. However, in focusing on the average preferences of their Ss and on the average preferences which their Ss attributed to their peers, these authors have overlooked the more central issue of the veridicality of their individual Ss' perceptions.

Ss may perceive their own position on the CDQ items relative to that of their peers in one of three ways. They may see themselves as riskier, the same as, or more cautious than their peers. For the social value hypothesis to be tenable, it is necessary that the level of risk advocated by those who view their own position as risky be no different from that advocated by others, i.e., that these persons have a nonveridical perception of their relative position. It would further appear necessary for the tenability of the social value hypothesis that the perceptions of the other two groups, those who see themselves the same as or more cautious than their peers, be veridical or that these groups be relatively small numerically. The finding of any other pattern would argue for an alternative explanation of the risky shift based on conformity or social comparison processes. The present study was undertaken to determine the veridicality of the perceptions of relative riskiness held by Ss in these three groups, and to shed some light on this important, but to date unexamined, aspect of the social value hypothesis.

SUBJECTS

The Ss in this study were 60 volunteers (42 males and 18 females) drawn from the S pool in an introductory psychology class at a large midwestern university. All Ss received credit toward their course requirement of participation in experiments for their efforts.

PROCEDURE

Risk preferences of the Ss and their estimates of the level of risk they thought their fellow students would recommend were obtained for two Choice Dilemma Questionnaire items (Items 1 and 6 on the original questionnaire). The first item deals with a situation confronting a young engineer who is thinking of switching jobs; the second is concerned with a college senior deciding which of two schools he should go to for graduate work. For both items the Ss were instructed to indicate the minimum odds of success they would require before recommending that the central character in each situation take the risky alternative (taking the new job and going to the more difficult but prestigious graduate school, respectively). The six alternatives available to the S were 1 in 10, 3 in 10, 5 in 10, 7 in 10, and 9 in 10 chances of success, and the alternative of not recommending the risky alternative. After the Ss had indicated their own preferences, they were asked to indicate the level of risk they thought their fellow students would recommend for each situation.

Risk scores were derived for each S by dropping the denominator from the fraction of the odds of success he had checked and summing across the two items. (A response of not recommending the risky alternative was scored as a 10.) Thus, each S's score for his own preferences and the score for his perception of his peers' preferences could range from 2 to 20, with a low score indicating greater risk.

RESULTS AND DISCUSSION

An initial overall comparison was made between the level of risk advocated by the Ss themselves and that level attributed to their peers with a *t* test for correlated observations (Winer, 1962). The results indicated that, on the average, the Ss did tend to see themselves as riskier than their

Table 1
Levels of Risk Advocated by Individuals Who See Themselves as Riskier Than, the Same as, or More Cautious Than Their Peers

	Relative Perceived Risk		
	Risky	Same	Cautious
N	35	18	7
X	8.23	12.11	12.28
SD	2.63	3.02	2.93

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Table 2
Summary of Variance Table

Analysis of Variance for the Data in Table 1					
Source of Variance	SS	df	MS	F	p
Treatment	225.5553	2	112.7777	15.5508	.01
Error	413.3780	57	7.2522		
Total	638.9333	59			

Newman-Keuls Procedures for the Data in Table 1					
Treatment		1	2	3	
1	Means	8.23	12.11	12.29	
2		---	3.88	4.06	
3			---	.18	
3				---	
			r = 2	r = 3	
	q .99 (r,57)		3.82	4.37	
	q .99 (r,57)		2.83	3.28	
		1	2	3	
			**	**	
				n.s.	

**p < .01

peers ($t = 5.38$, $df = 59$, $p < .01$). This result confirms the earlier findings of Levinger & Schneider (1969) and Wallach & Wing (1968).

Next, the sample was divided into three groups on the basis of the Ss' risk preferences relative to those they attributed to their peers—those who saw themselves as riskier, the same as, or more cautious than their peers. The number of Ss who fell into each category and the mean level of risk advocated by each group are indicated in Table 1.

The overall differences among groups was tested with an analysis of variance for unequal cell frequencies (Winer, 1962) ($F = 15.55$, $df = 2,59$, $p < .01$). The differences among the cell means were then tested with Newman-Keuls procedures, making the adjustment suggested by Winer for unequal cell frequencies. The results of these tests indicated that the mean level of risk advocated by those who saw themselves as riskier than their peers was significantly greater than that advocated by those who saw themselves as similar to their peers ($p < .01$) or that advocated by those who saw themselves as more cautious than their peers ($p < .01$). There was no significant difference in the mean levels of risk advocated by these latter two groups.

These results raise some questions about the tenability of the social value hypothesis. Clearly, the Ss who saw themselves as riskier than their peers were, in fact, significantly riskier. Similarly, the Ss who saw themselves as more cautious than their peers were more cautious. It was

principally those Ss who saw themselves as similar to their peers whose estimates of their own relative riskiness were nonveridical. Indeed, their estimates of their own relative position tended to err uniformly in the cautious direction. This general pattern of results suggests that it is not, as indicated by the social value hypothesis, those Ss who view themselves as riskier than their peers who find that their self-perceptions have been nonveridical, and hence switch. These Ss' self-perceptions are essentially veridical and hence they would have no reason to switch their preferences. Rather, these results suggest that the apparent group shift might be accounted for by shifts on the part of individuals who view themselves as similar to others, but who in fact are more cautious than their peers. This, in turn, suggests that the risky shift may be no more than an instance of conformity or an attitude change motivated by social comparison processes (Festinger, 1954).

The individuals who see themselves as either riskier or more cautious than their peers, for the most part are correctly judging their own relative position, apparently on the basis of some internal standard, while those individuals who see themselves as similar to others are not. It may be that in this instance, the statement that their position is the same as their peers' is indicative of a lack of any internal standards against which to judge their recommendations. Alternatively, it may also reflect a lack of commitment to their position. In either instance, the individuals

who see themselves as similar to their peers would then be expected to be most likely to change their position to correspond to an external standard provided by a group. Those individuals who view themselves as relatively risky or cautious would not be expected to change their position so long as their perceptions proved to be relatively veridical. Indeed, such individuals might not be expected to respond as readily to group pressures to conformity, even if their self-perceptions proved nonveridical because of their apparent greater reliance on internal standards.

Finally, it is of particular interest to note that the alternative explanations suggested by the results of this study would hold that the risky shift phenomenon is not dependent upon the presence of risk-related considerations. The essential determinants of an individual's response to a group discussion on any attitudinal issue are seen as the veridicality of his initial estimate of his relative position and the extent to which he relies on internal vs external standards in arriving at his position. This suggests that future research should examine the extent to which nonveridical perceptions of one's relative position on such attitudinal issues as presented in the CDQ are related to changes in personal preferences as a result of group discussion. Further, such considerations should also be examined for attitudinal issues unrelated to risk.

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