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Wary shift or risky shift?*

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The risky shift paradigm was taken into a real-world stiuation, i.e., the classroom. Thirty-five students were asked to decide what type of evaluation system they would prefer for grading purposes in their course. It was found that the individual-to-group decision produced a significant *wary* rather than a risky shift. The authors suggest that the real-world situation involving real risk may have been responsible for the wary shift. Further comments recommend caution in the confidence with which one might generalize risky-shift findings to the real world.

Numerous studies have demonstrated the phenomenon of "risky shift" when comparing individual with group decisions. Basically, risky shift refers to the situation in which a group decision is deemed riskier than the decisions of the individuals that comprised that group. Since Stoner's (1961) study, which first illustrated this occurrence, researchers have attempted to isolate the significant variables in order to explain the reasons for this phenomenon. Several recent literature reviews have elaborated on the variety of variables investigated and the numerous theories proposed in an attempt to further comprehend the nature of the risky shift (Cartwright, 1971; Dion, Baron, & Miller, 1970; Pruitt, 1971; Vinokur, 1971).

Regardless of the specific theory proposed to explain the risky shift, the fact remains that the vast majority of these studies have demonstrated such a shift. Several studies, however, have shown either no shift or substantial conservative shifts (Atthowe, 1960; Lonergran & McClintock, 1961; Clement & Sullivan, 1970). Furthermore, other studies have been able to induce a conservative shift by altering the instructions (Wallach, Kogan, & Bem, 1964), altering choice items (Rabow, Fowler, Bradford, Hofeller, & Shibuya, 1966), and by using items for which an initial choice was conservative (Teger & Pruitt, 1967; Nordhøy, 1962).

One of the major controversies with the risky-shift literature, high-lighted by Cartwright (1971) and Dion et al (1970), concerns the potential lack of generalizability of findings to the real world. The typical items provided to Ss are of hypothetical nature illustrated by the most frequently used source, the Choice-Dilemmas Questionnaire (Kogan & Wallach, 1964, Appendix E).

Several authors have commented that these situations do not, in fact, represent real-life experiences since the decision demanded by the S will not affect that individual's future, only that of the fictitious character (Cartwright, 1971; Dion et al, 1970; Clement & Sullivan, 1970). A few studies have attempted to simulate real risks by providing the potential opportunity to lose money through a particular decision or by using aversive physical stimuli in response to risky decisions (Wallach et al, 1964; Pruitt & Teger, 1969; Goodman, 1972). The results have varied from risky or cautious shifts to no shifts at all. Several criticisms have been levied against these gambling tasks. Primary among these criticisms has been the comment that since E money was provided for the Ss, the model for real risk could not have existed.

A recent study conducted in a field setting (i.e., race track) also suffers from the above criticism (McCauley, Stitt, Woods, & Lipton, 1973). Although the authors recognized the need for field tests of the risky-shift phenomenon, they were unable to control for the reality of the task since the Ss used E money. However, the nature of the real setting in this study may have had sufficient influence in causing a cautious shift, since Ss used E money.

Although numerous studies have laid claim to testing risky shift in a real-life environment, tapping real risks, these authors feel that only one study (of which the present research is a modified replication) can legitimately make such a claim. Clement & Sullivan (1970) took the risky-shift paradigm outside of the laboratory and into the classroom—a real-life environment. They found that not only did a cautious shift result from individual to group decisions, but that the nature of the problem generated initially conservative decisions, making the shift even more meaningful.

METHOD

Decision Alternatives

Seventy-five students from an applied psychology class were

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Table 1
Individual Preferences of Evaluation Procedures Pre- and Postdiscussion and Group Decisions Postdiscussion

Group	Group Choice	Before Discussion Alternatives						After Discussion Alternatives			
		"3"	"4"	"5"	"6"	"7"	"8"	"3"	"6"	"7"	"8"
1	"8"	1	–	–	2	–	2	–	–	–	5
2	"8"	1	2	–	1	–	1	1	–	–	4
3	"8"	–	1	–	1	–	3	–	–	–	5
4	"8""	–	–	–	–	1	4	–	–	–	5
5	"8"	2	–	–	–	–	3	–	–	–	5
6	"6"	–	1	2	2	–	–	–	–	1	4
7	"8"	1	–	–	1	1	2	–	1	1	3
Totals		5	4	2	7	2	15	1	1	2	31

used to obtain a risky-to-conservative ranking of 15 course requirement descriptions [e.g., (1) two cumulative tests; no paper required; no attendance required; no class participation required; or (2) teacher evaluation only; class participation graded; no attendance, no paper, no tests].

Mean rank values were computed for each description and the two criteria of minimal standard deviation and distribution across the risky-conservative contiuum were considered in the selection of the final eight items. The range of the mean values was from 2.9 to 12.3. Each item included was at least one mean value different from the next closest item, in order to insure perceived differences in the risky-conservativeness of the items.

One important alteration from the Clement & Sullivan (1970) study concerned the wording of the items, so that a risky item was attractive in some respect while a conservative item was somewhat undesirable. Clement & Sullivan (1970) failed to construct their items in this fashion. All 12 choice-dilemmas (Kogan & Wallach, 1964) used have this quality built into them. The factors of attendance requirements, participation evaluation, and to some extent paper requirements provided this control.

Subjects

Thirty-five students (23 male, 12 female) from an industrial psychology course were used as Ss. The Ss were selected randomly from the class roll to be in one of seven groups.

Procedure

At the beginning of the first class meeting in the academic term, each student was given a list of the eight course-requirement descriptions and asked to choose the type of evaluation system they would prefer for obtaining a grade in that course. The instructor made it quite clear that the purpose of this exercise was to involve students in a decision that might ultimately affect their grades and that he felt strongly about the need for such participation by the students. It was further explained that a clear majority for any one system would determine the course requirements, but that if no such majority prevailed, further discussion would be necessary. The forms were then completed and identified by student number only (Social Security number). At the next class meeting, 2 days later, the Ss were told that after analysis no clear majority existed for any one course-requirement system, thus necessitating a class discussion. It was suggested by the instructor that for convenience sake it would be beneficial to break into small groups for the purpose of discussing course-requirement preferences. The students were then assigned randomly to one of seven five-person groups, with the intent of obtaining a group consensus on one of the eight course-requirement systems. No other instructions were given, and no time limit was placed on the discussions. When all the groups had signified that they had made a decision, the instructor conveyed the seven group decisions to the entire class. Any individual who wanted to provide support for any one of the course schedules was then permitted to speak to the class as a whole. A general vote by the entire class was then obtained. At this point, the class was aware of the particular system that would be implemented. The instructor proceeded to explain to the class that he felt that, although all students would have to comply with the class decision, some may have wanted to express their individual disagreement. As such, each student was again asked to provide his/her personal choice, some of which may have changed as a result of the discussion, regarding the eight alternatives. When all forms were collected, the Ss were debriefed as to the purpose of the experiment and assured that their class decision would be upheld.

RESULTS

Table 1 shows that the majority of the individual choices made prior to the group discussion fell in the conservative end of the eight course descriptions provided. The mean choice of the 35 Ss was 6.2 (SD = 1.91). The group choices, however, were considerably more conservative, as all but one group decided on the most conservative choice. The mean of those seven group choices was 7.7 (SD = .755). The difference between the mean choice for the individuals and their respective group's choice was significant at the .05 level ($t = 2.066$, $df = 43$). The difference between the mean choice of the individuals prior to and after discussion was also significant ($t = 5.06$, $df = 34$, $p < .01$).

In order to describe more accurately the significance of the direction of the shift observed from individual to group choices, a sign test (Siegel, 1956, pp. 68-72) was computed. The results of this test were significantly different from what would have been expected by chance alone (i.e., $p = .5$, $q = .5$) since $Z = 5.67$ ($p < .001$). Similarly, a sign test was calculated to determine the significance of direction in change of choices made by individuals prior to and after discussion. Results indicated a directed shift significantly greater than chance alone would have predicted ($p < .001$).[1]

The raw data indicate that of the 18 Ss whose initial private choice was different from their group's choice, 16 changed their preferences via their second private choice. Of these 16, all shifted conservatively.

The group data show that in only one group, No. IV, was there a clear majority of individuals selecting the most conservative choice initially. Yet, of the remaining six groups, five agreed on choice "8," the most conservative alternative possible. Group VI was the only

group without an individual choice greater than "6." However, the consensus choice of Group VI was alternative "6," which was the most conservative alternative represented by any one group member.

It should be noted that 15 of the 35 Ss (ca. 43%) initially chose alternative "8" and that all of these Ss maintained that choice when given the opportunity to change. This comment is especially noteworthy in light of the following discussion suggesting that the nature of the problem may serve to induce a conservative or risky set.

Finally, results regarding the effect of sex on choices were not significant for either the individual choices or the group choice.

DISCUSSION

The controversy surrounding the abundance of research describing the risky-shift effects concerns not only the probable incidence of the phenomenon, but the explanations for its occurrence as well. Dion, Baron, & Miller (1970) have commented that two major limitations of the risky-shift research have been the unnatural groups making decisions and the artificiality of the risk situation. These factors have restricted the generalizability of the results to date.

The intent of the present study was to reduce the artificiality of the risk-taking situation by providing a real risk and by providing groups that were quite naturally arranged. Under these conditions, the noted risky-shift phenomenon was absent. Six of the seven groups studied demonstrated a substantial conservative shift from the average of the individual choices that comprised each group. The remaining group made no shift in either direction. It should be noted, however, that this group (IV) comprised four original alternative "8" choices, thus reducing the opportunity to shift conservatively. In addition, a conservative shift existed for 100% (18 of 18) of the Ss who did in fact change their original preferences.

Apparently, the observed conservative shifts were not affected by the original position choice, since of those Ss who did shift six had chosen alternative "6" originally, two had chosen "7," four had chosen "3," four had chosen "4," and two had chosen "5." However, of those who did not shift (17), only 2 had not selected the original "8" choice (a "6" and a "3"). These latter data bring to mind Clement & Sullivan's (1970) suggestion concerning the apparent conservatism portrayed by students, in general, regarding grades. Even though the majority of original choices was conservative, eight of the nine original choices from the more risky choices ("1"-"4") shifted conservatively, the remaining choice not shifting at all. These data were significantly different from expected equal (.5) probabilities ($p < .005$).

The present study supported the results of Clement & Sullivan (1970) under nearly similar conditions. However, one major alteration was made in the experimental design. Instead of large and unwieldy groups ranging from 16-18 persons, the present study used groups whose size was more similar to those found in small-group research and the risky-shift literature.

The risky-shift research results have been overexplained with little concern for the general applicability of those results to real-life situations. The present study confirms a previous experiment (Clement & Sullivan, 1970), which noted the possible inappropriateness of the risky-shift effect in explaining results in situations other than that of a contrived laboratory environment. In addition, it is felt that the risky-shift results generated from laboratory experimentation are not enough support to substantially contradict Whyte's (1956) original comments about the general conservativeness of group decisions.

The conservative shift obtained for this situation involving real risk as opposed to no real personal risk alternatives suggests the possibility that the shift maybe an artifact of the nature of the problem. Nordhøy (1962) and, later, Stoner (1968) suggested the feasibility of such an explanation by demonstrating that, while most of the choice-dilemna problems consistently generated risky shifts, certain problems resulted in cautious shifts. Furthermore, Rabow et al (1966) were able to reverse obtained shifts by altering the problem situation. The present study lends further support to the suggestion that riskiness may be tempered somewhat by the reality of the situation and the decisions that are to be made.

The present authors wish to propose the notion that real outcome problems may generate a consistent "wary shift." However, it is certain that the risky-shift literature may need careful evaluation methodologically before any substantive generalizations about the effect can be made. Further research concerning wary shift in a variety of real-lift situations may add significantly to the understanding of this phenomenon.

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NOTE

1. Siegel (1956) suggests that pairs of scores resulting in zero differences should be eliminated from the sign test analysis. Consequently, 17 such pairs were removed from the calculation, leaving an N = 18. For Ns smaller than 25, Siegel provides Table D (p. 250) of probabilities, from which the results of the present study were derived.

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