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SMALL GROUPS AND FOREIGN POLICY DECISIONMAKING:
SOME EXPERIMENTAL FINDINGS

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SMALL GROUPS AND FOREIGN POLICY DECISIONMAKING: SOME EXPERIMENTAL FINDINGS

by

Andrew K. Semmel
and
Dean A. Minix

25 July 1978

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FOREWORD

This memorandum was presented at the Military Policy Evaluation: Quantitative Applications workshop conference hosted by the Strategic Studies Institute in mid-1977. During the workshop, sponsored by DePaul University and the Strategic Studies Institute, academic and government experts presented the latest findings of formal models and statistical-mathematical approaches to the processes of military decisionmaking, assistance, intervention, and conflict resolution.

The Military Issues Research Memoranda program of the Strategic Studies Institute, US Army War College, provides a forum for the timely dissemination of analytical papers such as those presented at the workshop.

This memorandum is being published as a contribution to the field of national security research and study. The data and opinions presented are those of the authors and in no way imply the endorsement of the College, the Department of the Army or the Department of Defense.

ROBERT G YERKS
Major General, USA
Commandant
BIOGRAPHICAL SKETCHES OF THE AUTHORS

DR. ANDREW K. SEMMEL received his Ph.D from the University of Michigan in Ann Arbor, Michigan. He is currently an Associate Professor of Political Science at the University of Cincinnati. His research interests lie mainly in the area of foreign policy decision-making and comparative foreign policy. In recent years, he has published in such journals as *International Studies Quarterly, Political Methodology,* and *International Interactions.* During 1978-79, Dr. Semmel is serving as President of the Comparative Foreign Policy Section of the International Studies Association.

MR. DEAN A. MINIX, a graduate of Georgetown College in Kentucky, is a Ph.D. candidate in the Department of Political Science of the University of Cincinnati. His dissertation, *The Role of the Small Group in Foreign Policy Decision-Making: A Potential Pathology in Crisis Decisions?*, will be concluded shortly. Mr. Minix is associated with the Department of Government of Campbell College, Buies Creek, North Carolina. He is the recipient of the Southern Political Science Association's 1976 Chastain Award for his research into the areas of small group foreign policy decision-making. His research efforts have contributed to several published articles and papers presented before professional conferences.
SMALL GROUPS AND FOREIGN POLICY DECISIONMAKING:
SOME EXPERIMENTAL FINDINGS

The excellent set of foreign policy case studies researched and analyzed by Irving Janis in his well-known volume Victims of Groupthink (1972) has kindled interest among foreign affairs scholars regarding the central role and potential pathology of small group decisions. Whatever the nomenclature—ad hoc committee, special action group, task force—the small decision unit is frequently the locus of critical foreign policy activity. Whatever the organizational location and whatever the assigned function, small groups are apt to have a notable impact on some phase of the decision process and thereby some discernible effect on the substance of foreign policy outcomes. Their role and responsibility cover the entire gamut of the decision process and range from information processing and evaluation, to option recommendation, to implementing decisions, and the evaluation of prior actions. In many cases, as Janis notes, the small decision group is the principal and final decision body itself.

In his book, Professor Janis argues that decision processes and interpersonal dynamics within closely-knit groups often develop into a "collective overconfidence" and a "false consensus" which can lead to the substitution of "groupthink" tendencies for critical objective analysis. The evidence marshalled in support of his main thesis is
compelling and the logic of his conclusions is convincing. Despite this, a nagging question not addressed by Janis—or by many other scholars—is whether the decisions of small groups are inherently different from those of other decision units. Specifically, would any of the individual participants identified in each of his case studies have decided differently if called upon to act alone? Although we cannot directly answer this question, the question is more than an academic one. If the content of foreign policy decisions rendered by individual decisionmakers differs from the substance of small group choices, then it matters greatly which decision unit—individual or small group—is ultimately responsible for foreign policy decisions. If patterned differences between the two can be identified, the more intriguing question then becomes: How do they differ and what explains the differences? In other words, what are the influence mechanisms operating within the small group or on the individual which contribute to policy decisions which differ in their content and quality?

The two major purposes of this paper are first to explore and explain substantive differences in decision outcomes arrived at by individual decisionmakers and small groups, and second, to illustrate by example, the utility of experimental research in the study of foreign policy. Accordingly, we will present some experimentally-derived decision data to buttress our contention that group-based decisions will significantly differ from individual decision outcomes. As the paper will show, our main objective is to measure choice shifts that occur between the two decision units and to analyse some of the possible social-psychological effects of group interaction and discussion on individual behavior and collective choice-making.

The unique characteristic of the small group in decisionmaking studies is that it is likely to be populated with plural advocates or members with multiple policy preferences. Given this almost certain likelihood, how do the individual group members combine, sort out their conflicting preferences, and arrive at a final agreed upon decision? How does this final decision reflect their initial or personal preferences? Is there a consistent pattern within the small group decision process whereby the multiplicity of options is somehow shifted from a more (or less) risky one to a less (or more) risky one? Or, to repeat, how does the final group decision differ from the average or pooled preferences of the individuals comprising the group? Do foreign policy choices emanating from small decision units resemble the private preferences of the group's membership?
CHOICE-SHIFTS

The most appropriate theoretical framework for addressing the individual-group dichotomy, the changes and shifts in final decisions, and the effects of idiosyncratic and group attributes on decision processes and decision outcomes can be found in the socio-psychological literature of “choice-shift” (See Pruitt 1971a; 1971b). This literature (summarized below) treats as hypotheses, not as givens, the conventional wisdoms that groups lack boldness, that they tend to be conservative and cautious, and that they are motivated towards incrementalism in their actions. Considerable experimental evidence has been amassed from scores of studies which suggest that groups have a propensity to opt for decisional alternatives which are both risky and more cautious than the average preferences of their individual members. It is this bidirectional tendency of group decisions which has prompted us to systematically evaluate the choice-shift phenomenon in a foreign policy context.

Choice-shifts have been measured among liberal arts students of both sexes (Wallach, Kogan and Bem, 1962), graduate students in business administration (Stoner, 1961), business executives (Marquis, 1962), workers (Jamieson, 1968) and among experimental subjects in a dozen foreign countries: in Europe (Bateson, 1966; Kogan and Doise, 1969; Lamm and Kogan, 1970), Canada (Ferguson and Vidmar, 1971), Israel (Rim, 1964), New Zealand (Jamieson, 1968) and Uganda (Carlson and Davis, 1971). Despite the intense interest of social-psychologists in choice-shift research, there are infrequent references to it in the literature of political science and foreign policy (DeRivera, 1968; Janis, 1971; Hermann et al. 1974; George, 1975; Kirkpatrick, 1975a; 1975b; Kirkpatrick et al., 1976).

There are several excellent summaries and critiques of the literature on choice shifts which the interested reader can consult (Kogan and Wallach, 1967; Kelly and Thibault, 1968; Journal of Personality and Psychology XX No. 3, 1971; Vinokur, 1971; Kirkpatrick, 1976). The accumulated research on this subject over the past decade and a half has resulted in an impressive array of conflicting explanations and multiple findings—not unlike the findings derived from the more heterogeneous research seeking to identify the causes and correlates of foreign policy behavior (See, for example, McGowan and Shapiro, 1973). Vinokur’s (1971) survey of the field provides a useful review of the plural hypotheses and conflicting findings of this research. He identified four broad, overlapping types of hypotheses or models used to explain
choice-shifts in groups: the affective, the cognitive, the interactive, and the statistical (See also Cartwright, 1971; Kirkpatrick, 1976a).

Affective models of choice-shift behavior include most research that seeks to interpret individual behavior changes as a consequence of having to decide in the presence of others, i.e., in a group context. One explanation centers on the “sharing” or “diffusion of responsibility” thesis whereby individuals are shielded by their group anonymity from likely repercussions stemming from the effects of their actions outside the group. The collective setting, in other words, distracts attention away from individual responsibility and diverts it, instead, to the collectivity, thereby making it easier for the individual to endorse more risky (or more cautious) decisions. Should the outcome decision be regarded a success, the individual and the group could, then, claim whatever credit is forthcoming. (Wallach, Kogan and Bem, 1962; Milgram, 1963; and Stoner, 1968).

A second and very engaging affective explanation looks to the larger cultural attributes of society or subculture and relates risk-taking behavior to dominant values favorable or unfavorable to risky or cautious behavior. Thus, the rhetoric of risk and the centrality of risk-taking virtues (e.g. masculinity, youth, toughness) in a society or subsociety may render risky behavior a positive value. In such a cultural setting, peer pressures can operate so that a member of a group will behave in ways which enable him to regard himself at least as willing to take risks as any other group member (Brown, 1965: 698-706; Teger and Pruitt, 1967; Pruitt, 1971a).

Cognitive models judge choice-shifts a consequence of the situation at hand rather than the conditions under which a decision is discussed and made. One variant of the model explains changes in individual judgement in rational or subjective utility terms: the individual alters his preference ordering and reassesses the value of success or the consequences of failure as a result of group discussion and then changes his behavior to accomodate these new values (Vinokur, 1971). Another explanation falling under this set of cognitive models looks to the content of information exchanges and arguments raised in group discussions relating to the problem-task. When new information and persuasive arguments are introduced into the discussion they contribute to a different understanding of such things as the costs of negative consequences and the probability of success. These new elements tend to reduce uncertainty and increase familiarity with an issue and, thereby encourage boldness and risk-taking or caution-taking (Pruitt
The third set of explanatory models, the interactive, focuses on the social or leader-follower processes in the group. High initial risk-takers tend to be highly committed to more risky alternatives, and are more forceful, more confident in their views and are judged by other members as having more influence in the group discussion (Wallach, Kogan, and Bem, 1962). The behavior of influential high risk-takers (or influential low risk-takers) within the group pulls along or releases others from the social constraints of the group and helps move them in the direction of the dominant members of the group (Pruitt, 1971). This latter interpretation is slightly reminiscent of Asch's (1963) well-known study of conformity where deviation from the norm by a determined individual made it easier and more probable that others in the group would follow the "leader."

The final hypothesis is a statistical one. Rather than affect, interaction, or informational influence within the group, this hypothesis accounts for choice-shifts in terms of decision rules or the distribution of individual choice preferences at the outset. Choice shifts, then, are simply artifacts of the various experiments that are designed to explain them (Cartwright, 1971; Zajonc, Wolosin, and Wolosin, 1972).

More recently, choice-shift and related decision studies have been reinterpreted from the perspective of the group polarization hypothesis. This hypothesis holds that average group responses tend to become extreme in the direction indicated by the average of the initial individual preferences (see Moscovici and Zavalloni, 1969, and Myers and Lamm, 1976). Decisional situations which evoke initial risk-oriented responses generally elicit further shifts in the risky direction and those items which produce shifts to caution are those which elicited initial cautious means. The group polarization hypothesis is regarded a subset of the extremization phenomenon which predicts movement away from some neutral point but does not predict the direction of the shift. A very recent review of attitude, research, negotiations, juridical decisions, choice-shifts, and related decisionmaking studies involving small group discussions lends strong support to the view that group polarization effects (e.g., choice-shifts) are traceable to information exchange and influence and to interpersonal comparisons within the group (Myers and Lamm, 1976). This conclusion, as we will see, is generally consistent with the findings we discovered in our small group experiments.
The current state of this research, then, is marked by considerable dissension over which model or which explanatory variables best explain the phenomenon of choice-shifts. The only major area of consensus is that such changes regularly do transpire. As one set of reviewers noted, choice-shifts are “more easily replicated than explained” (Hinton and Reitz, 1971:277).

In foreign policy literature, applications of choice-shift are confined to the already-cited “groupthink” case studies of Irving Janis (1972) and to DeRivera’s discussions of US risktaking during the Korean intervention decision (1968). In addition, Crow and Noel (1965) and Hermann et al., (1974) found that subjects participating in simulation experiments tend to opt for risky alternatives when aggressive acts are initiated by others; in the Hermann et al. exercise, it was discovered that increased group interactions were likely to lead to the choice of more risky alternatives under conditions of a contrived nuclear strike.

Most of the evidence of choice shifts, however, comes from anecdotal accounts, case studies, memoirs, and case studies of actual foreign policy decisions. Arthur Schlesinger, for example, recalled a conversation with President Kennedy over events leading up to the US decision in the Cuban missile crisis which illustrates the risk-taking potential of group interactions:

The trouble is that, when you get a group of Senators together, they are always dominated by the man who takes the boldest and strongest line. That is what happened the other day. After Russell spoke, no one wanted to take issue with him. When you can talk to them individually, they are reasonable (1965:812).

Other accounts of the decision dynamics during the missile crisis suggest that several participants in EXCOM altered their views in the days preceding the final decision to implement the naval quarantines (Sorenson, 1965; Abel, 1966). For example, Secretary McNamara’s commitment to the side of caution may have influenced others to follow a less risky course of action. It should be noted that McNamara initially had proposed a do-nothing response but shifted his advice to a sea blockade; others in the EXCOM retreated from their original riskier proposals such as invasions or selective air strikes to endorse the final compromise decision (Allison, 1971).

Sorenson (1965) has also recorded the changing effects of group advice from the advisors surrounding President Kennedy. During the Bay of Pigs decision, they argued very little restraint and exerted little
caution against the dangers of an invasion of Cuba. Two years later, however, his advisors apparently convinced the President to pursue a more moderate, though still risky, course of action. During the planning of the Bay of Pigs invasion, Chester Bowles, Arthur Schlesinger, and Senator Fulbright each expressed reservations over the CIA-sponsored invasion plan but for a variety of reasons—many group-induced—they failed to articulate them before the group meetings. Bowles’ memorandum to Secretary Rusk that “the chances of success are not greater than one out of three” (Halberstram, 1972: 85) and Schlesinger’s own account of his reluctance to speak out against the invasion plan (1965: 252–256), indicate that private criticism seldom found its way into active consideration during group discussions.

These examples serve to complicate the issue since it is very difficult to sort out the positive or negative effects of group-induced shifts on foreign policy decisions solely from case studies or from anecdotal accounts, as valuable as they are. Generalizations are, indeed, hard to come by. As the next section shows, the methodology of controlled experimentation is well-suited to analysis of small group decision processes and to making generalizations about group-induced outcomes.

**EXPERIMENTAL RESEARCH**

Alternative research strategies abound in the comparative study of foreign policy processes. Each strategy contains unique advantages which are likely to vary depending upon the design and objectives of research. First, a researcher can consult experts familiar with a given subject matter by carefully culling the existing literature for insights, data, and generalizations. This research mode may involve post facto library research or other forms of secondary analysis similar to the comparative case studies of Janis. As a research strategy, resort to experts is limited by the available resources at hand and may be subject to or influenced by prevailing orthodoxies, should any exist.

A second strategy involves field research which embraces a variety of empirically-based methodologies. Elite surveys (e.g., Deutsch et al., 1967) or specialized interviews (Dexter, 1970; Lane, 1964) with active or former participants can lead to valuable data-based findings which, depending upon the research design, can build to generalizations across cases or across individuals or can be utilized for the reconstruction of a given policy decision or decision process. Scholars especially concerned with the external validity of their findings have found field studies a
preferred research methodology. Some fundamental difficulties exist, however. Researchers familiar with field studies involving attitudinal data, for example, are painfully aware of the problems of access, sampling, and secrecy to say nothing of the financial and time costs of such research (Dexter 1970; Semmel, 1975). Frequently these obstacles translate into frustration and limited scholarly pay-offs. Numerous exceptions exist, but the entrenched problems of reliability and validity cannot be easily dismissed and have deterred many analysts from adopting this particular research mode.

A third research strategy relies largely on unobtrusive measures devised to analyse foreign policy outcomes and/or processes from a distance. Typically, this strategy can involve a content analysis of documents, official records, or varying kinds of interpersonal, intergroup, or international communication (See Holsti 1969; 1972; North et al. 1963). Events surveys which focus on the kinds, the frequency, and the direction of nation actions and interactions illustrate a second genre of empirical research in this mode (e.g. Azar, 1970; Rosenau, 1974). Various national attributes have been used to measure internation distances, national capabilities, or to construct other theoretically-relevant nation typologies (e.g. Rummel, 1969; Rosenau, 1969; Moore, 1974). Although scores of studies have utilized content analysis, events surveys or national attribute theory, they tend to focus on outcomes to the exclusion or at least, minimization of the process leading up to decision outcomes.

A final research strategy—the one employed in this paper—is experimental research. Experimentation involves the more or less artificial recreation or reconstruction, through analogy or modelling, of that foreign policy phenomenon under investigation. The advantages of laboratory research have long been recognized by scholars outside political science who have benefitted enormously in their research on decisionmaking at both the micro and macro levels. Indeed, much of the data-base for individual and social-psychologically-oriented study of foreign policy and international relations have their intellectual genesis in experimental research (see Kelman, 1965; Singer, 1965; DeRivera, 1968; Jervis, 1969). Regrettably, experimental research "remains in relative infancy in political science, including the decision-making field" (Kirkpatrick et al. 1976: 56). Nonetheless, its advantages are unique and provide a valuable instrument for conducting data-based research in foreign policy research.

Laboratory research allows for close inspection, observation, and
measurement of decisional behavior generally not available to researchers in their natural settings. Experimental research enables one to design controls and impose management over the interaction of the variables and the effects they are thought to produce—e.g. choice-shifts. By structuring the experiment so that extraneous factors can be accounted for and independent variables manipulated, hypotheses can be tested and rival explanations of decision processes and outcomes subjected to more precise analysis and evaluation.

When controls are carefully built into the experiment, they tend to increase internal validity and thereby allow for the testing of causal relationships between the treatment variables and the effects they are intended to produce. Finally, replication permits an analyst to observe and assess similar processes more than once, a luxury rarely enjoyed in other research modes. Repeated observation can assist in establishing greater reliability and confidence in one’s findings and in establishing criteria for evaluating external validity (see Campbell and Stanley, 1963).

The drawbacks of experimentation are well-known. Controlled experiments generally have low external validity, making it hazardous to generalize findings to a population beyond the subjects in the experiment. The credibility of the pretense and the goodness of the fit between the laboratory and the natural setting as well as the differences in the “stakes” involved for real and temporary role players are only some of the critical problems relating to external validity.

Admittedly, these are serious questions which raise doubts about the validity and utility of experimental studies designed to investigate foreign policy outputs and processes. These problems, however, need not be a deterrent to imaginative research and creative hypotheses-testing. Weighting the liabilities heavier than the advantages of experimentation ignores the disadvantages of alternative research strategies. As two analysts of collective behavior have noted, “Short of this (experimentation) hypothesis testing must wait upon when, and what, the natural world chooses to yield” (Marx and Wood, 1975) and/or what we choose to or are able to observe. We think a compelling argument can be made for preempting the natural world rather than permitting it to direct and dictate scholarly interest and activity.

Experimental studies, finally, are no substitute for direct observation if direct observation is available to researchers. Important determinants of foreign policy outcomes such as small group processes, however, are almost always immunized from direct observation and measurement.
Indeed, access to small groups involved in foreign policymaking is ordinarily more difficult to achieve than access to individual-level or organizational-level data. Transcripts of small group meetings—if kept—are rarely made available for public consumption and outside consumers are only occasionally invited to participate in, or witness, small groups' decisional activity. Given the enormous problems involved in observing actual decision processes, experimentation is clearly the "least worst" research strategy available to our needs.

**METHODOLOGY**

The design for this study departed from the conventional choice-shift design in a number of ways. Given the noncumulative and often contradictory sets of findings derived from previous research, we felt that an alternative set of instruments was justified, if not necessary. First the subjects who participated in the exercise were drawn from three contrasting populations: (1) US Army officers (N=28) enrolled in the Fall 1976 Armor Officers Advanced Course at the US Armor School at Fort Knox, Kentucky; (2) student ROTC cadets (N=39) enrolled in the Army and Air Force Reserve Officers Training Programs at the University of Cincinnati; and (3) a larger sample of students (N=56) at the University of Cincinnati. Each experiment was conducted in the "natural" or "quasi-natural" environments of the three groups. In all, 123 individuals participated in the experiment which, when combined into small groups, resulted in 26 decision groups.

Several officers have had combat experience and/or served one or more tours of duty overseas prior to their participation in the Advanced Course at Fort Knox. The Advanced Course is a regular career component for Army Armor Officers and includes, in its core curriculum, instruction in principles of decisionmaking, leadership, motivation, and related subjects. The student cadets similarly receive instruction in decisionmaking and training in leadership assertion. The student sample likewise is heavily exposed to instruction in decision processes. Although we anticipated different levels of initial risktaking across the three samples, the differences in the direction (risky or cautious) and the magnitude (size) of their choice-shifts were open to speculation.

As we noted earlier, there have been only a few direct applications of choice-shift research to foreign policy research. (See Semmel, 1976;
Minix, 1976). A novel feature of the experimental design, therefore, includes the use of six foreign policy scenarios designed to pose varying degrees of threat to the United States—threats which could conceivably occur in the contemporary international system. Although each scenario was contrived explicitly for the exercise, we were reassured of their utility by the fact that the various participants overwhelmingly endorsed them as credible (See Appendix A). Summarized, the six scenarios are:

- A Soviet naval blockage of the strategic Strait of Hormuz (Persian Gulf).
- The downing and capture of a US reconnaissance plane and its crewmen in Cambodia (Cambodia).
- An overt military threat to South Korea and US personnel and dependents from North Korea (South Korea).
- The collapse of SALT Negotiations and the discovery of major Soviet breaches of SALT I agreements (SALT).
- The boarding of a US Navy Cruiser at the entrance to the Panama Canal by the Panamanian Navy (Panama).
- The occupation of a European Embassy by Arab guerrillas resulting in several casualties (Hague).

Each scenario was followed by an identical set of ten possible responses. These options ranged from those judged to be least risky (e.g., engage in bilateral talks) to those which were clearly more extreme (e.g., the threatened or actual use of nuclear weapons). The ten-point options scale was determined by means of the paired-comparisons technique (Torgerson, 1958; North, et al., 1963; Smith, et al., 1976). This scale was developed because we were interested in the level of risk each participant was willing to recommend in order to accomplish a common desired outcome—the protection of US interests. After selecting a course of action, each participant was also asked to estimate the choice his peers (officers; students; cadets) would make for each scenario.

In addition to the responses generated by the foreign policy scenarios, we collected a variety of demographic, personality, and experience data from each of the participants. These measures included, among others, a flexibility or rigidity scale (the California Psychological Inventory or CPI), a political belief index (PBS), and a political involvement abroad scale (PIN). Each decision group was profiled according to the unique combination of attributes among their membership.
FINDINGS

The experiment was designed to test a number of hypotheses comparing individual and group choice-making behavior. Specifically, we wanted to first identify and then explain differences in the direction (to risk or to caution) and in the magnitude of decision shifts between persons deciding alone and those same individuals deliberating as a small group. The main treatment variable is the group membership (GROUP), i.e., the three subsamples studied in this research. Analysis of variance and arithmetic mean and shift scores are presented below which show that differences between the two types of decision units are significant across the three experimental groups. The differences are statistically significant for each of the “pre—test”, the “post—test” and the “shift” scores observed in the experiment. In addition, we also calculated a set of regression coefficients to measure the relative effects of several independent variables on the three decision responses. Together these statistics can provide a useful description and a possible explanation of the pattern of decision responses observed in the experiment.

TABLE Ia. ANOVA for “Pre-Test” Responses for Three Experimental Groups.

<table>
<thead>
<tr>
<th></th>
<th>Sum of Squares</th>
<th>Degrees of Freedom</th>
<th>Mean Square</th>
<th>F Ratio</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Groups</td>
<td>23.79</td>
<td>2</td>
<td>11.89</td>
<td>5.88</td>
<td>0.009</td>
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<td>Residual</td>
<td>46.49</td>
<td>23</td>
<td>2.02</td>
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</table>

TABLE Ib. ANOVA for “Post-Test” Responses for Three Experimental Groups.

<table>
<thead>
<tr>
<th></th>
<th>Sum of Squares</th>
<th>Degrees of Freedom</th>
<th>Mean Square</th>
<th>F Ratio</th>
<th>Significance</th>
</tr>
</thead>
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<tr>
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<td>91.14</td>
<td>17.01</td>
<td>0.000</td>
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<tr>
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<td>123.25</td>
<td>23</td>
<td>5.36</td>
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</tbody>
</table>

TABLE Ic. ANOVA for “Shift” Scores for Three Experimental Groups.

<table>
<thead>
<tr>
<th></th>
<th>Sum of Squares</th>
<th>Degrees of Freedom</th>
<th>Mean Square</th>
<th>F Ratio</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Groups</td>
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<td>2</td>
<td>37.24</td>
<td>11.44</td>
<td>0.000</td>
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<tr>
<td>Residual</td>
<td>74.86</td>
<td>23</td>
<td>3.25</td>
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</table>
Analysis of Variance. In this section, we present findings which enable us to state whether or not the respective decision responses were derived from the same population; that is, whether or not the dependent variables are statistically significant across the three subsamples. Our main hypothesis, therefore, is:

$$H_1:$$ The decision responses will each be statistically significant across the three experimental groups.

To test intersample differences, we utilized an analysis of variance program with a $3 \times 5 \times 110$ factorial design with repeated measures on the first two factors. Thus, the five (or six) crisis scenarios and the three experimental groups were treated as repeated measures. Tables IA, IB, and Ic present F-statistics and probability levels which show that intersample differences for each of the three decision scores are all statistically significant (“pre-test”: $F=5.88$, df=2; $p> .01$; “post-test”: $F=17.01$, df=2; $p> .01$; “shift”: $F=11.44$, df=2; $p> .01$). The practical meaning of these statistics is that the response scores for each decision variable is significantly different across the three sets of subjects involved in the experiment.

We do not want to make more out of these tables than is due. F-statistics do not and can not directly tell us the magnitude of differences across the treatment variable nor can they tell us the direction of the differences (Iverson and Norpoth, 1976). They can suggest that there are important differences between and among the sample subjects. These tables, therefore, permit us to conclude that the first hypothesis ($H_1$) is supported.

Direction and Size: Mean and Shift Scores. The findings displayed in the following pages amplify and go beyond the summary data generated by the analysis of variance. In two earlier papers (Semmel, 1976; Minix, 1976), we reported briefly on both the direction and the magnitude of the choice shifts within and among the three experimental groups. Looking at the differences between the “pre-test” and “post-test” decision responses for all scenarios ($N=148$), we reported that the twenty-six groups shifted to a more risky option 54 percent ($N=80$) of the time, moved to caution in 44 percent ($N=65$) of the situations and failed to register any shift in only 2 percent ($N=3$) of the total number of cases.

When we computed the average shift responses per group across the set of six crisis scenarios, the results were far more suggestive and revealing. All the military groups shifted-to-risk when they deliberated
as a small decision unit and all but one of the ROTC-cadet groups recorded riskier preferences than they expressed in private. The college students, however, behaved in a mixed and ambivalent manner: 5 of the 12 groups endorsed more risky choices while 7 moved in a more cautious direction. In terms of direction of choice shift, the students represent the deviant cases.

The principal directional hypotheses we tested in this section include the following:

H2: The military officer group will shift-to-risk more often than the ROTC-cadet groups and more often than the college student groups.

H3: The ROTC-cadet groups will shift-to-risk less often than the military officer groups and more often than the college student groups.

In a sense, hypotheses two and three assert that the direction of the choice-shifts will vary with the personnel composition of the small group. Here, we expected the military units to express the highest levels of risk-taking and the college students to endorse the lowest levels of riskiness. Accordingly, we posed two closely related hypotheses for which we provide data below:

H4: The military officer groups will elicit choice preferences on both the “pre-test” and the “post-test” decision responses which are higher than the ROTC-cadet groups and the college student groups.

H5: The ROTC-cadet groups will elicit choice preferences in both the “pre-test” decision responses which are lower than the military officer groups and higher than the college student groups.

Table II presents a comprehensive overview and summary of the response patterns for each crisis scenario by each experimental group. Included are the “pre-test” scores, and the “post-test” responses, and the “shift” scores for each subsample across the six crisis situations. On the whole, the officer groups not only supported greater levels of risk-taking in both the individual and group decision settings, they also shifted greater distances and more often to risk than did both the ROTC-cadets and the student groups. In almost every scenario, the officers recommended options which required the actual or threatened use of force to protect US national security. By contrast, the twelve student groups preferred to negotiate with the adversary and to recommend the use of diplomatic moves on all but the South Korean crisis (See Appendix A). The ROTC-cadets recorded preferences which
TABLE II

"Pre-Test", "Post-Test" and "Shift" Decisions Responses for each Experimental Sample

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Officers (N=28)</th>
<th>ROTC-Cadets (N=39)</th>
<th>Students (N=56)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pre</td>
<td>Post</td>
<td>Shift*</td>
</tr>
<tr>
<td>Persian Gulf</td>
<td>4.28</td>
<td>7.17</td>
<td>+2.89</td>
</tr>
<tr>
<td>Cambodia</td>
<td>3.66</td>
<td>5.00</td>
<td>+1.35</td>
</tr>
<tr>
<td>South Korea</td>
<td>6.79</td>
<td>8.33</td>
<td>+1.55</td>
</tr>
<tr>
<td>SALT</td>
<td>3.28</td>
<td>3.83</td>
<td>+0.55</td>
</tr>
<tr>
<td>Panama</td>
<td>6.89</td>
<td>7.85</td>
<td>+0.95</td>
</tr>
<tr>
<td>Hague</td>
<td>5.27</td>
<td>5.83</td>
<td>+0.56</td>
</tr>
<tr>
<td>X</td>
<td>5.03</td>
<td>6.33</td>
<td>+1.31</td>
</tr>
</tbody>
</table>

*A positive shift value indicates a shift-to-risk and a negative shift value a shift-to-caution*
were, as hypothesized, somewhat more cautious than the officer groups but more risky than the student decision units.

Figure A graphs the mean shift scores on each scenario for each experimental group. The pattern of movement is a clear one. In all but three instances, the differences in decision shifts are as hypothesized. The officer groups failed to register a shift response greater than the ROTC groups on only one scenario (Item 4: SALT). The ROTC groups recorded smaller shifts to risk than the students on two scenarios (Item 1: Persian Gulf; and Item 3: South Korea). These three results were unexpected and deviant cases, but it should be borne in mind that shift scores only represent the size of the difference between the individual and group-based decision units. They do not represent the riskiness of the option actually selected. A closer look at Table II, for example, would show that a shift of +1.55 from a “pre-test” of 6.79 (Military Blockade) is substantially different from a hypothetical but identical shift of +1.55 from a “pre-test” base of, say, 2.00 (Call a meeting of the UN Security Council). The former shift score clearly involves a greater commitment of resources, planning and risk than the latter, even though the two shift scores are identical.

In sum, we can conclude that hypotheses two through five are supported by the evidence presented. Some exceptions exist, but the comparative levels of risk-taking in the “pre-test”, the “post-test” and in the direction and size of the decision shifts do conform to what we hypothesized.

It must be strongly emphasized that we do not and cannot claim to know which level of risk or caution is appropriate or inappropriate for any given scenario. We cannot say, for example, that the Army officers were necessarily supporting levels of risk in excess of that required for a resolution of a given crisis, or that student groups were endorsing undue caution when less restraint was called for. A recommendation of a more extreme option in one situation may reflect proper judgement while an identical recommendation in another situation may indicate poor judgement. These findings, therefore, only indicate the pattern of choice-making across individual and small group decision settings within and across the subsamples included in the study. Nevertheless, the results do indicate that efforts to reconcile differences among group members eventuate in contrasting decisions for the military and ROTC groups on the one hand and the students on the other.

Measures of Strength. This final analytical section will attempt to answer one remaining question: Which explanatory variable or variables best account for the pattern of decision responses found in Table II and
FIGURE A: COMPARATIVE DECISION "SHIFT" SCORES FOR SUB-SAMPLES ACROSS DILEMMAS
picted in Figure A? Put differently, what best explains the variance in each of the three dependent decision variables? To derive a measure of strength, we computed separate regression coefficients for each decision response variable. In addition to our core explanatory variable, group membership (GROUP), we analyzed the separate and combined effects on the decision scores of the following independent variables: (1) Psychological rigidity (CPI); (2) Political Beliefs (PBS); (3) Support for US Political Involvement Abroad (PIN); (4) Group Size (GRSIZE); and (5) Type of Decision Rule Used (DECRULE).

Here we had no specific hypothesis or set of hypotheses in mind. Frankly, the analysis in this section involved a fishing excursion into the data. However, we would be surprised if the GROUP factor failed to correlate highly with the decision variables or failed to explain a considerable proportion of the variance in each of the decision responses. As for the remaining explanatory variables, we have no iron-clad expectations. These variables were included in the analysis because they represent possible rival explanations of the decision responses. We did anticipate that the index of rigidity (CPI) would correlate highly with the frequency and magnitude of shifts, regardless of direction. More flexible subjects and groups composed of flexible members are likely to be more susceptible to interpersonal influence and, thereby, more likely to agree to group decisions different from their own preferences. Similarly, we reasoned that subjects and groups expressing stronger support for US involvement abroad would endorse higher levels of risktaking on both the “pre” and the “post” test responses. The Political Belief, Group Size, and Decision Rule variables were analyzed because we wanted to ascertain their independent and relative effects as well. Considerable evidence exists that conservatism correlates positively with activism abroad or with the use of more coercive instruments of foreign policy (See McClosky, 1967). There is also evidence that the size of the group will effect the decision process and the quality and content of outcomes (Bales, 1950; Collins and Guetzkow 1964; Hare, 1962:224–225). Finally, several studies have shown that the type of decision rule (unanimous vs. majority vote) employed elicits different response patterns (Kirkpatrick and Robinson, 1976; Semmel, 1976; Scheff, 1963). Some studies have explicitly pointed out that majority vote decision rules are more conducive to risky decisions or, at least, to larger choice-shifts. To repeat, we anticipate that the GROUP variable will be the most potent of these explanatory factors.
The three multiple regression tables on the next page show the relative and cumulative effects of the explanatory variables on the three decision variables. The explanatory variables are arranged in hierarchical order according to their relative contribution to the cumulative percentage of variance explained (R² change). Pearson product-moment correlation coefficients (r) are also presented to show the simple bivariate association between each variable and each decision score—without considering the additional effects of the remaining variables. The beta coefficients are standardized beta statistics and indicate the amount of change in each dependent variable for every unit change in the independent variable with all other independent variables held constant. Each table, finally, lists only those explanatory variables which account for at least 1 percent of the variance in the decision responses.

The tables reinforce the conclusions reached and discussed earlier. Group membership, and presumably group dynamics, account for most of the variance in both the “post-test” scores (R² = .59) and the choice-shift differences (R² = .49). In each case, the multiple R² is almost solely determined by the robust size of the R² for group membership. The one exception is found in Table IIIc where the GROUP variable explains only 2 percent of the total variance. The negligible effect of GROUP membership on the “pre-test” decision scores is traceable to the fact that, in this experimental phase, the GROUP variable only refers to the mean of the individual “pre-tests.” Whereas the strength of the GROUP variable on the “post-test” may be traceable to actual group processes, its impotence in explaining “pre-test” results can be traced to the absence of any possible group-induced effects.

**TABLE IIIa. Multiple Regression: “Shift”**

<table>
<thead>
<tr>
<th></th>
<th>Multiple R</th>
<th>R²</th>
<th>R²Change</th>
<th>r</th>
<th>Beta</th>
</tr>
</thead>
<tbody>
<tr>
<td>GROUP</td>
<td>0.705</td>
<td>0.497</td>
<td>0.497</td>
<td>0.705</td>
<td>0.744</td>
</tr>
<tr>
<td>DECRULE</td>
<td>0.719</td>
<td>0.518</td>
<td>0.021</td>
<td>-0.152</td>
<td>-0.167</td>
</tr>
<tr>
<td>PIN</td>
<td>0.731</td>
<td>0.535</td>
<td>0.017</td>
<td>-0.077</td>
<td>0.201</td>
</tr>
<tr>
<td>PBS</td>
<td>0.747</td>
<td>0.558</td>
<td>0.023</td>
<td>0.066</td>
<td>0.152</td>
</tr>
</tbody>
</table>
TABLE IIIb. Multiple Regression: "Post-Test."

<table>
<thead>
<tr>
<th>Variable</th>
<th>Multiple R</th>
<th>R²</th>
<th>R²Change</th>
<th>r</th>
<th>Beta</th>
</tr>
</thead>
<tbody>
<tr>
<td>GROUP</td>
<td>0.769</td>
<td>0.593</td>
<td>0.593</td>
<td>0.769</td>
<td>0.593</td>
</tr>
<tr>
<td>CPI</td>
<td>0.791</td>
<td>0.626</td>
<td>0.034</td>
<td>-0.643</td>
<td>-0.301</td>
</tr>
<tr>
<td>GRSIZE</td>
<td>0.806</td>
<td>0.649</td>
<td>0.023</td>
<td>-0.024</td>
<td>-0.135</td>
</tr>
<tr>
<td>PBS</td>
<td>0.813</td>
<td>0.661</td>
<td>0.011</td>
<td>0.103</td>
<td>0.124</td>
</tr>
</tbody>
</table>

TABLE IIIc. Multiple Regressions: "Pre-Test."

<table>
<thead>
<tr>
<th>Variable</th>
<th>Multiple R</th>
<th>R²</th>
<th>R²Change</th>
<th>r</th>
<th>Beta</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI</td>
<td>0.611</td>
<td>0.373</td>
<td>0.373</td>
<td>-0.611</td>
<td>-0.490</td>
</tr>
<tr>
<td>PIN</td>
<td>0.662</td>
<td>0.438</td>
<td>0.065</td>
<td>-0.185</td>
<td>-0.133</td>
</tr>
<tr>
<td>GROUP</td>
<td>0.675</td>
<td>0.455</td>
<td>0.018</td>
<td>0.577</td>
<td>0.221</td>
</tr>
<tr>
<td>PBS</td>
<td>0.681</td>
<td>0.464</td>
<td>0.008</td>
<td>0.117</td>
<td>0.103</td>
</tr>
</tbody>
</table>

The GROUP and CPI variables have the strongest and most consistent bivariate relationship with the three decision responses. Table IV reproduces the Pearson product-moment correlations for these two variables; the entries in the table show that the correlation between GROUP membership and each decision response is strong and positive while the r's for the CPI index are strong, but negatively related. These latter correlations would suggest that more flexible subjects or experimental groups are less likely to register risk-oriented preference than rigid subjects. The remaining variables—PBS, PIN, DECRULE, GRSIZE—all have weak bivariate relationships and contribute little to the overall variance in the three decision scores.

TABLE IV. Pearson r Coefficients for GROUP and CPI-Index.

<table>
<thead>
<tr>
<th></th>
<th>Pre-Test</th>
<th>Post-Test</th>
<th>Shift</th>
</tr>
</thead>
<tbody>
<tr>
<td>GROUP</td>
<td>+.58</td>
<td>+.77</td>
<td>+.71</td>
</tr>
<tr>
<td>CPI</td>
<td>-.61</td>
<td>-.64</td>
<td>-.50</td>
</tr>
</tbody>
</table>

DISCUSSION

The three sets of statistical findings presented above all point to group membership as the critical explanatory variable. The analysis of variance showed that statistically significant differences exist in the
decision responses across the three experimental samples. The mean and shift scores displayed in Table II portrayed the overall pattern in the direction and magnitude of the three decision responses within and across the sampled groups. Finally, the bivariate and multivariate analyses helped to sort out the relative strengths of several independent variables and to identify which variable(s) accounted for the explained variance in the decisions scores. In all cases, the GROUP setting proved to be the most potent variable on which to anchor an explanation of the findings outlined in the previous section.

While the statistical findings are impressive in their consistency, they do not, by themselves, speak to the process or dynamic which shaped the actual decision results. It should be clear by now that factors must have been operating in the student groups that were different from those in the officer and ROTC-cadet decision units. Given this, the question we are now posing is: How can we further explain the effects of decision dynamics on the pattern of choice-shifts among the three experimental groups?

In an earlier portion of this paper, we summarized a number of models or explanatory modes extant in the choice-shift literature. Here, we propose to link our findings to decision processes by combining elements of the “cultural-value” (Brown, 1965; Carleson and Davis, 1971) thesis and the “group polarization” thesis (Myers and Lamm, 1976; Moscovici and Zavolloni, 1969). Briefly, the former looks to the peculiar cultural or value milieu of a decision unit and predicts that the direction and content of its decision will reflect relevant group values. The group polarization thesis simply explains choice-shift as an enhancement of the dominant value already expressed by group members in the initial or “pre-test” phase of the experiment. When combined, these two theses explain choice-shifts in terms of the reinforcement of dominant values within the group and among group members. Through the media of group discussion, information exchange, and exposure to relevant arguments about the desirability of certain outcomes, cognitive learning takes place among group participants. The new information is processed by individuals so that it reinforces and enhances preexisting dispositions. Recalcitrants are pulled along by the strength of persuasive arguments. Options may be revised but, depending on the value milieu of the small group, revisions tend to move towards the direction of the already preferred pole—i.e., to more risk or to more caution. Such a hybrid explanation has the theoretical advantage of being able to embrace both shifts-to-risk and
shifts-to-caution in experimental studies and in actual foreign policy processes.

This explanation would seem superficial if it were not for the fact that the decision responses of the officer and the ROTC groups were so different from those of the students. When this reasoning is reformulated into hypotheses, we have the following:

$H_6$: Decision groups which shift-to-risk will have higher “pre-test” scores on average than those groups which shift-to-caution,

$H_7$: Decision groups which shift-to-caution will have lower “pre-test” scores on average than those groups which shift-to-risk,

and,

$H_8$: The direction and size of choice-shifts can be explained by the content of the information exchanged during group discussions.

Hypotheses six and seven compare the average individual “pre-test” scores with the mean “post-test” responses and assess directional changes between them. In conformity with the group polarization thesis, those groups recording high (low) on the initial decision runs would score higher (lower) on the group-based decision choices.

Figure B visualizes the “pre-test” and the “post-test” marginals (from Table II) of each experimental sample and vividly illustrates the direction of the changes between the two decision results. The officer groups shift sharply upwards (to risk) as do the ROTC-cadets, although the incline of the latter is less pronounced. The student groups, on the whole, show a reduction in risk-taking when they deliberate as small groups—hence, the downward or negative directional slope. Unlike the military and quasi-military groups, the effects of deciding in small groups of students was to lessen the level of risk they expressed in private settings.

The officer groups shift to more risky alternatives as anticipated by hypothesis six; the ROTC groups do the same though they register a less dramatic movement to more extreme options. The student groups, on the other hand, changed to less extreme preferences as hypothesis seven suggests. Generally, those decision units which recommended diplomatic options at the outset did not shift to military options and those which preferred force-related alternatives in private were inclined to the increased use for military solutions in their small group discussions.
FIGURE B: MEAN "PRE-TEST" AND "POST-TEST" RESPONSES PER SAMPLE
Unfortunately, we did not collect the kind of systematic evidence from the group discussions that is required to support or refute hypothesis eight. We did, however, tape record all the discussions of military groups. What follows is by no means systematic or definitive but a qualitative content analysis of the recorded discussions can yield some valuable clues which tilt in the direction of confirming our last hypothesis.

The discussions within the officer groups were generally marked by considerable rhetoric of risk. Typically, a discussion began with an individual discussing the scenario and expressing his personal preference: “I think 8 is the bare minimum (Korea),” or “I can go with 10 based on this information. Do you want to go with 10 (Korea)?”

The thematic content of the interchange within the officer groups pertained mostly to: (1) the strategic importance and the security threats of each situation to the United States; (2) recent and historic analogies and previous action taken or not taken (e.g., Munich 1972; Mayaguez; Pueblo; Entebbe); (3) the needs to establish or reestablish US credibility through action; and, (4) intense discussion of the potential gains and likely costs of selecting a given option in a given crisis. The following excerpt illustrates one exchange within one officer group deciding how to respond to a terrorist occupation of the US Embassy in the Hague:

Subject 1: “I’d use whatever force is necessary on them. I want them out.”

Subject 2: “Well, I wouldn’t play games with them.”

Subject 1: “If we lose a few, we lose a few . . . we want immediate action.”

Subject 3: “There will be a lot of repercussions. I would accede to their demands.”

Subject 4: “Eight months ago, we had some terrorists lock themselves in the Hague. You really have to admire the Israelis . . . I’d say, another raiding party.”

Subject 3: “We’re becoming more militant as we go along.”

Although the specifics of this exchange are unique, the direction and the content were not atypical.

Additional illustrations of the prevailing value of the officer groups could be cited but they would closely resemble the example given
"Wait and see" suggestions were rarely raised in the officer groups; instead, the discussions nearly always centered on the imperatives of committing the United States to some course of action. As one officer concluded, "You either throw in the towel or come out fighting." Many of the student groups, by contrast, discussed the utility of "riding out" the crises and/or resolving them through negotiation and diplomatic intercourse. We have no detailed record of these discussions but some postexperiment debriefings do indicate that information introduced into discussions was persuasive in altering downwards the initially risky private preferences of some student subjects.

Information exchange in the form of persuasive arguments about the desirability of a given option or a given outcome appears to have been the most influential factor shaping group decisions. From the fragmentary evidence we gathered, the content of the information exchanged in the student and officer groups disposed the latter to move to riskier and the former to shift to more cautious decisions. Group polarization apparently did take place in the direction of the dominant values of each experimental sample, since the initial individual values or preferences were apparently strengthened and enhanced by the small group deliberations.

To conclude, this research has addressed itself to some possible consequences of small group deliberations on foreign policy decisions involving risk. Our main analytical foci have been on the decision effects of small group behavior, the ways individuals cope with uncertainty, how they rearrange their private preferences, and devise means of reconciling their differences in arriving at collective decisions. The literature of choice-shift behavior provided the intellectual entry to the subject matter and the "groupthink" theory of Irving Janis provided the main stimulus of linking choice-shift research to the study of foreign policy. In generating the decision data, we substituted surrogates for real decisionmakers, asked them to render high-value decisions in experimental settings, presented them with a prearranged scale of options, and did so without including the all-important role of a designated leader. These are liabilities in the experimental design that we recognize should not be overlooked—nor overemphasized.

Nonetheless, the findings generated by this research may provide valuable insights into foreign policy behavior at the individual and small group levels of analysis. Linking the two levels of analysis with an emphasis on decision processes should be a research priority among
those analysts who believe that much of the variance in foreign policy behavior can be explained by social-psychology-oriented variables and theories.
1. Similar explanations have been raised in trying to explain the collective behavior of crowds (e.g. Johnson, 1974).

2. For a discussion of contrasting subcultures as it relates to decision style and risk-taking, see Henry T. Nash’s (1973: 96–99) comparison of military and nonmilitary approaches to conflict resolution.

3. Part of the problem, no doubt, stems from the difficulty in identifying what is meant by risk in concrete decision situations. In related research such as Asch’s study (1952) or the so-called “Lost on the Moon Test” (See Hall, 1971) which compares the correctness of individual and group decisions under survival circumstances, an objective or correct response is knowable. In actual foreign policy decision situations, the appropriate or correct level of risk is not always knowable, either before or after a decision response is made. Most analysts, moreover, agree that the quality of group-made decisions is higher than that of individuals acting alone. The intriguing problem then is to identify these group-based factors which lessen the advantages groups have in decision situations.

4. Risk-taking behavior may be associated with a host of other conditions: crisis situations, stress, uncertainty, a feeling of a loss of control, poor negative feedback (See Reedy, 1970; Weisband and Frank, 1975), groupthink (Janis, 1969), the strategic decisional location of authoritarian or aggressive personalities (George, 1969; Leites, 1953), and cognitive rigidity (Garnham, 1974) to mention a few possible sources.

5. The conventional design in choice-shift research typically utilizes (up to) twelve life dilemma decision situations incorporated in some version of a choice-dilemma questionnaire (CDQ). Subjects are asked to select a course of action which represents the lowest “probability of success” (e.g. 2 out of 10) they consider acceptable for a person to follow. They do so in private and again in small groups. The test-retest differences indicate the choice-shift, with lower success probabilities (e.g. 1 out of 10) representing higher risk-taking and higher success probabilities indicating caution.

6. We would like to express our appreciation to the Assistant Commandant at Fort Knox Brigadier General Paul S. Williams, and to Captain Keith Titus of the Leadership Department of the Advanced Course at Fort Knox for their cooperation and assistance in this exercise. The experiment was not conducted for or on behalf of the US Army; the above graciously consented to our experiment uses only.

7. We want to also express our appreciation to Captain James Connell and Captain Paul Sefrin of the Military Science Department of the University of Cincinnati for their cooperation and assistance.

8. Paired-Comparison Scaling requires that all scale items (in this case ten) be dyadically paired with every other item; using judges to select the more extreme item in that dyad; and calculating a frequency score for each option. In our research, this produced a relative scale of risk among all items ranging from low risk (bilateral talks) to high risk (threat or use of nuclear weapons). (See Smith, et al. 1976).

9. The Political Belief Scale (PBS) profiles each subject’s political ideology
along the standard, seven-item, forced-choice scale that the Center for Political Studies (CPS) traditionally uses. The twenty-two item, true-false questionnaire from the California Psychological Inventory (CPI) measures a respondent's psychological rigidity or flexibility in accepting change. For an application to the study of foreign policy, see the studies by David Garnhan (1974). The Political Involvement Scale (PIN) was first used by Campbell, et al. (1960). This scale was obtained in Robinson, Rusk, and Head (1968:296-97).

10. The 5(6) entry in the factorial design indicates that the ROTC-Cadets were not asked to respond to scenario six (Hague Embassy). The Officer and Student samples were tested on all six scenarios.

11. The Analysis of Variance program that was used is part of the Biomedical Program Package (BMD) developed at University of California at Los Angeles.

12. In writing about the Bay of Pigs decision, Schlesinger (1965:256) noted the importance of risk rhetoric among the supporters and opponents of the invasion plan: they "had a rhetorical advantage. They could strike virile poses and talk of tangible things... to oppose the plan, one had to invoke intangibles."
APPENDIX A

The following is the scenario format used in the test and re-test packets. The question at the bottom of each scenario was deleted in the group or re-test packet. Note, also, that the directions and options are not included for scenarios II-VI in the Appendix, but are included in the test and re-test packets.

Situation I

The Persian Gulf, the heartline of the western world’s oil supply, is connected to the Indian Ocean by the tiny stretch of water known as the Strait of Hormuz. The Soviet Union, which is the most prominent naval power in the area, has decided to block the Strait and deprive the western world of its vital energy source. As a member of the National Security Council, your recommendation to the President would be to:

A number of alternatives for action have been made. Some are more decisive and involve more risk to the United States but are also more likely to bring about the desired outcome. If necessary, how far down the list of options below would you be willing to go in order to protect the interests of the United States?

Note that the alternatives are listed in the order of the extremity of the action involved. The first item is the least extreme and the last the most extreme. Check only one item!

1. ( ) Engage in bilateral negotiations or talks with the adversary to settle the crisis.
2. ( ) Call a meeting or special session of the UN Security Council.
3. ( ) Support (nonmilitarily) opposition elements in the area or nation in which the national interest and security of the United States is threatened.
4. ( ) Discontinue diplomatic relations with the adversary and attempt to sway world public opinion to the side of the United States.
5. ( ) Create economic turmoil in adversary’s country to substantially weaken his war effort.
6. ( ) Send military advisors to the area that is threatening to US interests and security. These are noncombatant personnel only.
7. ( ) Establish a military or naval blockade of the adversary’s country.
8. ( ) Use conventional ground forces to repel the adversary’s threat.
9. ( ) Engage in limited strategic bombing of noncivilian, military sites only.
10. ( ) Use the nuclear capability of the United States to eliminate the possibility of many American deaths and to bring the adversary to the point of negotiation.

What option do you think most officers at or above your rank would be likely to recommend? ( ).

Situation II

A US reconnaissance aircraft recently strayed over the sovereign airspace of Cambodia. The plane was shot down with a Soviet made surface-to-air missile and its highly secret, sophisticated technology and its two man crew captured. Now, the government of Cambodia has secretly demanded that the United States commit itself to a $10 billion economic aid program over the next 5 years or risk the execution of the US airmen as spies and the transfer of the secret aerial technology to the Soviet Union or China. As a member of the National Security Council, what is your recommendation to the President?

Situation III

Three days ago, an ally of the United States – South Korea – thrust across the fortified border separating itself from North Korea. At the time, South Korea said that its military action was begun to prevent an attack from the North Koreans. This morning, it was learned that nearly 90,000 South Korean regulars have been encircled just north of the border. Included among the South Korean army are 200 US military observers who followed the northward incursion. If the South Korean army is wiped out or forced to surrender, it would leave open a gap through which the North Koreans could push southward and threaten the safety of some 50,000 US nationals in South Korea. As a member of the National Security Council, what is your recommendation to the President?

Situation IV

The Strategic Arms Limitation Talks (SALT) between the Soviet Union
and the United States have attempted to produce an acceptable balance in the number, size and capacity of missiles and bombers of the two countries. Such an agreement is based on the belief that both sides will abide by its provisions. If, upon learning of drastic violations by the Soviets of this agreement, what would your National Security Council recommendation to the President be?

Situation V

The Panamanian Navy has detained and forcibly boarded a US cruiser at the entrance to the Panama Canal. Its action has stalled all commercial and military traffic through the canal. Moreover, the Panamanian Government is holding the cruiser as "hostage" in order to compel the United States to yield to its demands for immediate nationalization of the Canal Zone. As a member of the National Security Council, your recommendation to the President would be:

Situation VI

The US Embassy in the Hague, Netherlands has been seized since early this morning by a militant faction of Arab nationalists who are a splinter group of a Chinese Communist-supported organization that is headquartered in Damascus, Syria. Since the occupation, the guerillas have killed four and wounded two in a violent attempt to establish their credibility. The US Ambassador to the Netherlands is also a captive, but before his release, the guerrillas are demanding $10 million in cash, $3 million in medical supplies, and a safe exit out of the country via a Swiss airliner. As a member of the National Security Council, what is your recommendation to the President?
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**Title:** Small Groups and Foreign Policy Decisionmaking: Some Experimental Findings

**Abstract:**

The two major purposes of this paper are first to explore and explain substantive differences in decision outcomes arrived at by individual decisionmakers and small groups; and, second, to illustrate by example the utility of experimental research in the study of foreign policy. Accordingly, the authors present some experimentally-derived decision data to buttress their contention that group-based decisions will significantly differ from individual decision outcomes. The authors' main objective is to measure choice shifts that occur between the two decision units and to analyze some of the possible social-
psychological effects of group interaction and discussion on individual behavior and collective choice-making.
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