The effectiveness of two alternative attitude change strategies—a traditional persuasive strategy and a combined attributional/persuasive strategy—in altering attitudes toward nuclear disarmament were compared. Seventeen male and 39 female undergraduate students at a small university participated. A nuclear disarmament attitude pretest was administered. Two lectures, one advocating nuclear disarmament and the other designed to enhance belief in personal political efficacy, were videotaped. After viewing one or both of the videotapes, subjects completed a questionnaire.

The study had predicted that change would be greater among the subjects who viewed the combined presentation than among subjects who viewed only the pro-disarmament presentation. It was also predicted that this effect would be greater among initially pro-disarmament subjects than among initially anti-disarmament subjects. Study results failed to support these predictions. Although all subjects' disarmament attitudes tended to become more favorable toward disarmament over the course of the study, no differential attitude change resulted from the attributional manipulation. (ERM)
Initial Position, Personal Control, and Attributional Augmentation of Persuasive Communication on Nuclear Disarmament

Johny H. Fleming
Princeton University

and

Kelly G. Shaver
College of William and Mary

Running head: ATTRIBUTIONAL AUGMENTATION

Abstract

A traditional persuasive strategy was compared to a strategy designed to increase perceptions of personal control in changing attitudes on nuclear disarmament. Although the attributional presentation was effective in altering perceptions of personal control, it did not result in an increase in attitude change. Explanations based on social judgment theories of attitude change are presented and alternative interpretations are discussed.
Initial Position, Personal Control, and Attributional Augmentation of Persuasive Communication on Nuclear Disarmament

What factors might mitigate or enhance the effect of a persuasive communication? This question has challenged both social scientists and lay communicators since the scientific study of attitudes began. The several volumes from the Yale communication and attitude change program (for example, Hovland, Janis & Kelley, 1953) were at the time of their publication thought to have settled most of the issues, but more recent reviews of persuasive communication suggest that the applause might have been premature (Petty & Cacioppo, 1981). Indeed, one of the enduring and perplexing failures of attitude change programs is their relative inability to produce effectively either long-lasting change or substantial displacement from initial position (Zimbardo, Ebbeson, & Maslach, 1977). The traditional attitude change procedure involves presenting a change target with informational (and occasionally emotional) appeals made by a credible source. Through the years there have been arguments about the effectiveness of persuasive communications, and indeed about the relationship between expressed attitudes and overt behavior (Ajzen & Fishbein, 1980; Bagozzi & Burnkrant, 1979; Bentler & Speckart, 1979; Wicker, 1969). Given the relative lack of success achieved by the traditional methods, what is most surprising is the fact that attitude change procedures derived from alternative theoretical positions are generally absent from the literature.
Based on an attributional analysis of behavior change, an alternative approach present in a study by Miller, Brickman, & Bolan (1975) attempted to modify two kinds of behavior among grade school children using either a traditional persuasive strategy or an attributional intervention. The two behaviors were littering (the persuasive attempt tried to reduce classroom littering) and performance on tests of mathematical skill (the persuasive attempt tried to increase and sustain that performance). An eight-day program of intervention tried either to produce attitude change (the traditional approach) or to internalize the personal responsibility felt for successful performance (the attributional approach). Results of the study showed that the attributional intervention produced not only a greater amount of behavior change, but also one that lasted for a longer period of time.

There are, however, three issues left unresolved by the Miller, et al. (1975) research. First, will an attributional intervention prove as effective on a topic that is less clearly tied to public social desirability? There should be little reason for a grade school child not to attribute tidiness and ability to the self. But what about an adult's personal attribution for an opinion that is potentially controversial? Second, will an attributional manipulation be effective for all individuals, or will its contribution to the outcome depend in part on the target's initial position? Just as all of the social desirability constraints in the elementary school world ought to favor tidiness and superior academic performance, so the individual child ought to enter the experiment with a personal belief that these characteristics are positive. What if the target's initial position on an issue is contrary, and legitimately
so, to the position advocated by the intervention? Finally, because the attributional intervention itself relies so heavily on questions of personal control (independent of the attitudinal content of the persuasive communication), will individual differences in personal control beliefs lead to differential effectiveness of an attributional intervention? These three questions constitute the basis of the present study.

For reasons of internal validity, most attitude change research begins with a theoretical question of importance and then tests that question using an "attitude" of little consequence to the subject. A familiar example is the Festinger & Carlsmith (1959) forced compliance study, in which the "attitude" supposedly changed was the subject's evaluation of a peg-turning task specifically designed to be as boring as possible. Recent work has attempted to broaden the area of application, but even here are "attitudes" of minimal social import (for example, see Petty & Cacioppo, 1979; Regan & Fazio, 1977; Snyder & Kendidizierski, 1982). Although the selection of attitude content to fit the experimental design is the appropriate strategy for testing precise theoretical predictions, it will not provide what is required for the present work: an important and controversial issue on which there is a legitimate and wide range of opinion. A variety of social issues, however, do meet these criteria, and three such issues (women's rights, the insanity defense, and nuclear disarmament) were examined in a precursor to the present study (Fleming & Shaver, 1983). Partly because of the findings of that earlier study, the attitude issue chosen for the present research was nuclear disarmament.
When an attitude issue like nuclear disarmament is controversial, the social judgment theory of attitude change (Eiser & Ströbe, 1972; Sherif & Hovland, 1961) suggests that the target's initial position will affect the success of any attempt to produce change through persuasive communication. Such efforts will be most effective when they are moderately discrepant from the target's initial position—too far away to be assimilated, yet too close to be contrasted. In order to take the target's initial position into account, a study of persuasive communication could follow one of two general strategies.

The first of these, more appropriate for an initial foray into unknown territory, would measure the initial positions of potential targets, and then constitute groups based on these initial scores, excluding individuals whose attitudes cluster around the neutral point. The second strategy would measure the initial positions of all subjects who participate in the research and then use those initial positions as covariates in the final analysis.

Because attitudes toward nuclear disarmament have received little attention in the literature (see only Deutsch, 1982; Grueneich, Weldon, & Zecker, 1983), the present study followed the first general strategy.

Taking an individual target's position into account should increase the accuracy of the conclusions from a study of persuasive communication, but when the persuasive attempt is augmented by an attributional manipulation an additional individual difference variable must be considered: relevant beliefs in personal control. Attributional interventions have been suggested for a wide variety of social problems (Frieze, Bar-Tal, & Carroll, 1979), but those involving change in perceived personal control are likely to be the most
effective (Eagly, Wood, & Chaiken, 1981; Wood & Eagly, 1981; Wortman, 1976). Whether the problem is to achieve or strive in an educational context (Dweck, 1975), or such coping with victimization (Bulman & Wortman, 1977), perceived personal control leads to effective action, while perceived lack of such control leads to apathy. This empirical generalization suggests that targets who already believe they have some personal control over the relevant events will be more susceptible to a reinforcing attributional manipulation than will targets who believe that nearly all of the important events in their lives are beyond personal control.

In the context of an attitude toward disarmament, however, there is more to personal control than just the attributional component. There is also an attitudinal component. The generalization "personal control leads to action, lack of control leads to apathy" is a more formal equivalent of the typical popular-wisdom explanation for lack of public involvement in crucial government policy decisions. "My one vote won't make a difference" is an almost legendary rationalization for lack of participation in the political process, and may also provide an explanation for "neutral" attitudes toward important policy questions. Why have a strong attitude toward a particular governmental policy with which you might disagree when you believe there is nothing that you personally could do to bring about a change in the policy? In the case of nuclear disarmament, those potential targets of persuasive communication who are strongly opposed to disarmament tend to agree with the policies of the present administration, while those who favor disarmament would most probably feel that their position receives virtually no consideration.
in the councils of government. Thus, an attributional intervention designed to increase perceptions of personal control over governmental decisions might affect not only those perceptions of control, but also the resulting attitudes, especially an attributional intervention accompanying a persuasive communication.

In order to investigate the role of an attributional intervention in producing change in a complex social attitude regarding a controversial issue, this study combined an attributional change procedure with a persuasive communication. The former included numerous examples of instances in which actions of individual citizens had, indeed, affected governmental policies and strongly suggested that this efficacy could be generalized to other issues. The persuasive communication was, because of local conditions, restricted to the prodisarmament position, and in the experimental design it was or was not accompanied by the attributional manipulation. The targets of influence were individuals who had been preselected for having either prodisarmament or antidisarmament attitudes, and all subjects were given a measure of their beliefs in personal control over governmental policies derived from Collins' (1974) factor analysis of the Rotter (1966) Internal-External Locus of Control Scale. Specifically, it was predicted that the combined personal efficacy/persuasion condition would produce greater attitude change than would the persuasion condition alone. It was also expected that this effect would, because of the direction of the persuasive attempt, be greater among initially prodisarmament subjects than among initially antidisarmament subjects. Finally, it was anticipated that the effectiveness of the procedures would be
related to initial beliefs in personal control, with those subjects having strong beliefs in personal control being affected by the change procedures to a greater extent than those subjects who possessed virtually no initial expectation that their actions would affect government policies.

Method

Subjects

Seventeen male and 39 female undergraduate students at a small southeastern state university, selected from an initial field of 206 students, served as subjects and all received course credit for their participation. The 56 subjects were selected on the basis of scores on a four-item nuclear disarmament attitude pretest administered as part of an earlier study. The four items comprising the attitude measure were taken from an original group of seven nuclear disarmament attitude questions used in previous research (Fleming & Shaver, 1983) that assessed the relationship between attitudes on several social issues (including nuclear disarmament) and Collins’ (1974) subscales of the I-E Locus of Control scale (Rotter, 1966).

In that research it was found that these four items (a) had significant part-whole correlations with one another as well as a significant average intercorrelation ($r(206) = .44, p < .01$), (b) clustered together on their own separate factor when the 63 attitude and I-E scale items were factor-analyzed, and (c) were uncorrelated with any other attitude or I-E subscale when univariate and canonical correlational procedures were applied. In addition, inspection of the means and standard deviations for each of these items indicated that the full spectrum of possible responses to each question had
been used by the subjects in the earlier study. These results, when taken together, suggested that although the issue of nuclear disarmament may be multi-dimensional in nature, these items would provide an adequate measure for sampling attitudes on the issue.

Each of the four Likert-format attitude pretest items was scored so that a higher score reflected a greater degree of pro-disarmament sentiment. Scores on the four items were then summed for each subject, yielding a range of disarmament attitudes scores from a minimum of four to a maximum of 28 for all 206 subjects. Because the purpose of the experimental manipulation was to attempt to move attitudes in the pro-disarmament direction, to avoid ceiling effects, 33 subjects scoring greater than 24 on the attitude measure were dropped from further participation. The 173 remaining subjects were divided into upper (pro-disarmament), middle, and lower (anti-disarmament) thirds. Finally, 27 subjects from the pro-disarmament group (range = 19 to 23, mean attitude score = 21.33) and 29 from the anti-disarmament group (range = 4 to 14, mean attitude score = 10.14) were randomly selected to participate in the present research.

Materials

Video-taped manipulations. Two lectures, one advocating nuclear disarmament and the other designed to enhance a belief in personal political efficacy, were prepared and recorded on videotape for use as the experimental manipulations. Both were presented by a faculty member in the Department of Religion, sponsor of the campus' Nuclear Disarmament Study Group and an outspoken proponent of nuclear disarmament, who volunteered
to participate in the research.

The pro-disarmament lecture attempted to persuade the audience of the need for a reappraisal of this country's policies regarding nuclear weapons, manufacture and deployment in light of the potential for human error, mechanical malfunction, or miscalculation in starting a nuclear war. In addition, the lecture discussed the enormous costs, both economic and emotional, that are incurred in an arms race.

The personal efficacy presentation tried to convince the audience that they could, indeed, effect changes in government policy through citizen action. The lecture presented examples of successful citizen lobbying for legislation such as that which banned the use of the pesticide DDT and red dye #2, the outcry over abuses of executive power that resulted in the Watergate investigations, and the results of the public outrage over Congressional excesses such as those concerning the Hart Senate Office Building.

To ensure that both tapes were identical in all aspects other than message content, both recordings were made on black and white videotape from the same camera angle (head-on/medium shot). Prior to the actual recording session, both scripts were matched for length and edited to eliminate content overlap. Finally, all taping was accomplished during the same two-hour session.

Dependent variable questionnaire. After hearing the persuasive communication(s), subjects completed a questionnaire that included, among other things, the eight items from Collins' (1974) Belief in a Politically

Procedure

Subjects were randomly assigned to one of six experimental groups run over the course of two days. At each session, the research was described as a study of the effects of social issues on voting behavior and each subject was asked to view one of the videotaped presentations and to complete the questionnaire. After the initial instructions, subjects were randomly assigned to one of the two treatment conditions. Thus, the overall design crossed two levels of persuasive presentation (pro-disarmament alone, combined pro-disarmament/personal efficacy) with two levels of nuclear disarmament attitudes (pro-disarmament, anti-disarmament), with repeated measures on the last factor.

The incident at the Washington Monument. One of the hazards inherent in research on social issues is the potential for uncontrollable world events to interfere with the best-laid experimental plans. Coincidentally, just such an event occurred on the first day of the study when Norman Mayer, a nuclear disarmament activist, held the Washington Monument hostage—threatening to blow it up unless the United States government took drastic steps toward nuclear arms reduction. Considering the possible impact such an event might have attitudes toward nuclear disarmament, we decided to ask subjects during the debriefing sessions whether they were aware that the incident had occurred. Of the 56 subjects, 38 said that they had heard about the incident, but a between groups analysis of variance revealed no significant
differential effects resulting from knowledge of the incident, \( F(1, 54) < 1 \), n.s.

Following the debriefing session, subjects were thanked for their participation and excused.

Results

None of the results reported below differed significantly as a result of sex differences. Consequently, sex differences were not included in these analyses. Subjects' initial and post-manipulation responses to the political unresponsiveness subscale items and the nuclear disarmament attitude items were scored so that a higher score reflected either a greater belief in the political unresponsiveness of the system (for the political unresponsiveness subscale items) or a greater favorability toward nuclear disarmament (for the nuclear disarmament attitude items). Because the remaining post-manipulation items were not used in the present analyses, they were not scored. Finally, aggregate political unresponsiveness subscale and nuclear disarmament attitude scale scores were calculated for each subject. The nuclear disarmament attitude items and the political unresponsiveness subscale items, and their

scoring keys are presented in Table 1.

Manipulation checks
As expected, pro-disarmament subjects reported significantly more favorable initial attitudes toward disarmament (M = 21.33) than their anti-disarmament counterparts (M = 10.14), \( F(1,52) = 129.55, p< .001 \). In addition, analyses of variance revealed no significant differences between treatment conditions in either attitudes toward nuclear disarmament (one-tape M = 15.16, two-tape M = 15.84), \( F(1,52) < 1, \text{n.s.} \), or political unresponsiveness beliefs (one-tape M = 29.84, two-tape M = 32.29), \( F(1,52) < 1, \text{n.s.} \).

The attributional manipulation

Our first task, of course, was to assess the effectiveness of the attributional presentation in altering subjects' political unresponsiveness beliefs. Although, the political unresponsiveness subscale scores for all subjects tended to decrease over the course of the experiment, \( F(1,52) = 23.51, p< .001 \), subjects in the combined attributional/pro-disarmament presentation condition showed a greater overall increase in their beliefs in personal political efficacy (net change = -7.81) than those in the single pro-disarmament presentation condition (net change = -3.08), \( F(1,52) = 4.47, p< .05 \), indicating that the attributional presentation had succeeded in enhancing a belief in personal political efficacy.

The pro-disarmament attitude manipulation

The major objective of the present study was to compare the effectiveness of two alternative attitude change strategies—a traditional persuasive strategy and a combined attributional/persuasive strategy—in altering attitudes toward nuclear disarmament. It was predicted that attitude
change would be greater among the subjects who viewed the combined presentation than among subjects who viewed only the pro-disarmament presentation. Additionally, it was predicted that this effect would be greater among initially pro-disarmament subjects than among initially anti-disarmament subjects. Unfortunately, our results failed to support these predictions.

Although all subjects' disarmament attitudes tended to become more favorable toward disarmament over the course of the study $F(1,52) = 11.93, p < .01$, a repeated measures analysis of variance revealed no differential attitude change as a result of the attributional manipulation $F(1,52) < 1, n.s.$ Instead, the pro-disarmament subjects evidenced little or no net change regardless of the treatment condition (net change = +.08) while the anti-disarmament subjects moved significantly in the pro-disarmament direction (net change = +4.03), $F(1,52) = 10.62, p < .01$. The nuclear disarmament attitude scale cell means and the net attitude scale changes for each attitude group by treatment condition are shown in Table 2.

Finally, we expected the effectiveness of our persuasive procedures to be related to initial beliefs in personal control. In order to test this prediction subjects were divided at the midpoint (32) on the political unresponsiveness subscale. The two resulting groups (high and low belief in personal control) were used as a two-level independent variable in an analysis of variance. Contrary to our predictions, subjects with high beliefs in
personal control showed less net attitude change (net change = \(-1.35\)) than subjects who believed that their efforts would go unheeded (net change = \(+3.32\), although the difference between these two groups was only marginal, \(F(1,54) = 2.33, p < .13\)).

Discussion

The present results indicate that although our attributional manipulation was quite effective in altering personal control beliefs, such enhanced beliefs did little to amplify changes in attitudes on nuclear disarmament.

At least in the present context, issues of personal control (as measured by Collins' (1974) Belief in a Politically Unresponsive World subscale) appear to have little to do with the strength of an individual's attitude on an issue (such as nuclear disarmament) or the subsequent attitude change due to a persuasive communication. Instead, the best interpretation of the attitude change findings from the present research is provided by social judgment theories of attitude change (Eiser & Stroebe, 1972; Sherif & Hovland, 1961).

According to social judgment theory, persuasive communications that are in line with a subject's own position (within the subject's latitude of acceptance) will be assimilated with no resultant attitude change, a prediction substantiated by the present results. If, on the other hand, the persuasive communication is moderately discrepant with the subject's position (it falls within the subject's latitude of noncommitment), significant attitude change can result. Apparently, our persuasive communication fell within this latitude of noncommitment for the majority of our anti-disarmament subjects, with few subjects showing the contrast effects predicted by the theory when a
counter-attitudinal position is advocated. In short, whether or not attitude change resulted from the pro-disarmament presentation depended on the subject’s initial position on the issue. While there are several possible reasons for a failure to reject the null hypothesis, including conceptual, procedural, and statistical shortcomings, the present findings suggest the possibility of an alternative interpretation.

Those of us who study attitudes and attitude change do so partly out of an appreciation for the tremendous role that attitudes (and the ways in which they can be formed or altered) play in shaping and guiding social policy. The concerns that motivated the present research deal specifically with the role that personal efficacy might play in issues over which the average individual can exercise no direct action, but must instead rely on the actions of others, ultimately to influence social policy. The results from the present study suggest a reexamination of current social psychological theory regarding the relationship between beliefs in personal control and attitudes on important social issues.

Previous research on the attribution of personal control has generally been restricted to two classes of events: 1) those over which the individual is actually able to exercise direct control, and 2) those that are actually determined by chance but over which the individual maintains an illusion of control (Henslin, 1967; Jenkins & Wald, 1965; Langer, 1975; Strickland, Lewicke, & Katz, 1966; Wortman, 1975). Both classes, however, concern events that are proximal to the subject. Distant events (i.e., events over which the individual can only exert influence on a ‘middleman’ who is
responsible for effecting the change) have received little attention in the literature. Likewise, where attributional interventions have proven effective (e.g., Miller, et al., 1975; Wilson & Linville, 1982), the behavior of interest was under the direct control of the subjects in the experiment.

Again, the finding that the attributional manipulation used here was effective in enhancing subjects' judgments of their own personal efficacy (despite the fact that such enhancement did little to alter attitudes on nuclear disarmament) when taken alone is intriguing. If relevant beliefs in personal control can effectively be altered without any change in issue-relevant attitudes, then two explanations seem plausible. First, one might be tempted to conclude that issues of personal control bear little import on attitudes concerning important social issues. The literature previously cited suggests that this is probably not the case. Instead, one is left with the possibility that beliefs in personal control are relevant only for those issues over which the individual can exercise direct control, and not for those issues over which the individual can exercise influence that is less than direct (such as that typically found in American democratic government). After all, we as citizens rarely effect social change individually. Rather, a rising tide of sentiment within society influences those in power to produce the appropriate legislation. This type of efficacy usually requires concerted and unified action by large numbers of individuals. It must be well organized and often requires a considerable amount of time to reach fruition; we must often content ourselves with the knowledge that we may never see the fruits of our labors.
In sum, the role of beliefs in personal control in attitude change is a complex problem. Current views of personal efficacy may err on the side of over simplification. Beliefs in my own ability to influence outcomes may be applicable for the vast majority of issues that bear directly on me and over which I can exercise direct control. Complex issues in which a 'middleman' must intervene to effect change, however, present a more challenging problem. Undoubtedly, my beliefs in my own efficacy will influence the extent to which I will become involved in political activities, but the extent to which they influence the strength of my attitudes on complex social issues deserves further attention.
References


Author Notes

Requests for reprints should be sent to Dr. Kelly G. Shaver, Department of Psychology, College of William and Mary, Williamsburg, VA 23185. Portions of this paper were presented at the 56th annual meeting of the Eastern Psychological Association, Boston, MA, March 21-24, 1985.
Footnotes

1. The authors wish to thank Dr. James Livingston of the College of William and Mary for his willing and able performance as the persuasive communicator.

2. The experiment took approximately three months to complete, from assessment of the initial attitudes to completion of the experimental procedure.
Table 1.

Content of Collins' (1974) Belief in a Politically Responsive/Unresponsive World Subscale and Nuclear Disarmament Attitude Items

<table>
<thead>
<tr>
<th>Code&lt;sup&gt;a&lt;/sup&gt;/Key&lt;sup&gt;b&lt;/sup&gt;</th>
<th>Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>PR1 (-)</td>
<td>One of the major reasons why we have wars is because people don't take enough interest in politics.</td>
</tr>
<tr>
<td>PR2 (+)</td>
<td>This world is run by the few in power, and there is not much the little guy can do about it.</td>
</tr>
<tr>
<td>PR3 (-)</td>
<td>The average citizen can have an influence in government decisions.</td>
</tr>
<tr>
<td>PR4 (+)</td>
<td>As far as world affairs are concerned, most of us are the victims of forces we can neither control nor understand.</td>
</tr>
<tr>
<td>PR5 (-)</td>
<td>By taking an active part in political and social affairs the people can control world events.</td>
</tr>
<tr>
<td>PR6 (+)</td>
<td>It is difficult for most people to have much control over the things politicians do in office.</td>
</tr>
<tr>
<td>PR7 (-)</td>
<td>With enough effort we can wipe out political corruption.</td>
</tr>
<tr>
<td>PR8 (-)</td>
<td>In the long run the people are responsible for bad government on a national as well as on a local level.</td>
</tr>
<tr>
<td>ND1 (-)</td>
<td>We need to have a strong nuclear arsenal to insure our own security against other countries who possess nuclear weapons.</td>
</tr>
</tbody>
</table>
ND2 (-) If it were up to me, I'd spend more money on a strong military including more advanced nuclear weapons.

ND3 (+) I think that the defense budget is too high.

ND4 (+) The reason why nuclear weapons are still around is that there has not been enough concentrated effort made by the people to eliminate them.

*a Collins' (1974) Belief in a Politically Responsive/Unresponsive World subscale items are coded (PR), the nuclear disarmament attitude items are coded (ND).

*b On each scale a (+)-keyed item was scored so that strong agreement = 7; a (-)-keyed item was scored so that strong disagreement = 7."
Table 2
Initial and Final Cell Means for the Nuclear Disarmament Attitude Scale

<table>
<thead>
<tr>
<th>Time of Measurement</th>
<th>Pro-disarmament</th>
<th>Anti-disarmament</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 Tape</td>
<td>2 Tapes</td>
</tr>
<tr>
<td>Initial</td>
<td>21.75 (12)</td>
<td>21.60 (15)</td>
</tr>
<tr>
<td>Final</td>
<td>22.25</td>
<td>20.73</td>
</tr>
<tr>
<td>Net Change</td>
<td>.50</td>
<td>.27</td>
</tr>
</tbody>
</table>

Note: Numbers in parentheses are all cell n.