

1991

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PERCEPTIONS OF EFFICACY AND SOCIO-POLITICAL ACTIVISM

A Thesis Presented

by

ROBERT T. SCHATZ

Submitted to the Graduate School of the
University of Massachusetts in partial fulfillment
of the requirements for the degree of

MASTER OF SCIENCE

September 1991

Department of Psychology

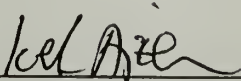
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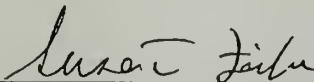
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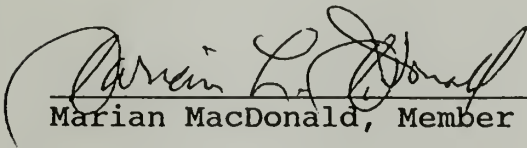
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ABSTRACT

PERCEPTIONS OF EFFICACY AND SOCIO-POLITICAL ACTIVISM

SEPTEMBER, 1991

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This study was conducted to investigate the relationship between perceptions of efficacy and socio-political activism. Two primary distinctions between perceptions of efficacy are advanced: political vs. issue-specific efficacy, and personal vs. impersonal efficacy. Political efficacy is defined as the belief that one can influence the government and the political process; issue-specific efficacy is defined as the belief that one can influence the government and the political process with regard to a particular socio-political issue. Personal efficacy beliefs are defined as beliefs that one's own actions can influence outcomes; impersonal efficacy beliefs are defined as beliefs that outcomes can be influenced in the abstract. Two hypotheses are advanced: 1) issue-specific efficacy is more strongly associated with activist behavior than political efficacy 2) personal efficacy beliefs are more strongly associated with activist behavior than impersonal efficacy beliefs. Three issues are examined: the threat of nuclear war, the quality of the

environment, and the current financial problems at the University of Massachusetts at Amherst. In the pilot study, efficacy and activism scales were developed. In the main study, the hypotheses were tested. Generally, the results supported the hypotheses. The implication of this research for socio-political action-taking is discussed.

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CHAPTER I

INTRODUCTION

Throughout the history of psychology, theorists and researchers have investigated the psychological factors associated with behavioral performance in a variety of domains. One factor that has been proposed to be an important determinant of behavior is the degree to which an individual believes that he or she has control over events in the world. Interest in this construct is evidenced by the volume of research, originating from a variety of perspectives, that has emphasized its importance (see Averill, 1973; Fiske & Taylor, 1984, Ch. 5, for reviews). Theories of human behavior rooted in the traditions of personality theory (Epstein, 1990), social learning theory (Bandura 1977, 1982, 1990; Rotter, 1966), attitudes (Ajzen, 1985, 1988; Ajzen & Madden, 1986; Festinger, 1957), and social cognition (Janoff-Bulman, 1989) have independently proposed that perceptions of control are an important determinant of human behavior.

The concern of this article is the influence of perceptions of control on the performance of a specific type of behavior, namely socio-political activism. I will review the findings of previous research that has attempted to predict the performance of activist behaviors by utilizing measures of perceived control. Two primary distinctions among existing measures of perceived control

over political events will be explored and tested in an effort to advance both our understanding and prediction of socio-political action-taking.

Interest in perceived political control most likely arose from interest in perceptions of control in general. Perhaps the best known measure of controllability is Rotter's (1966) internal-external (I-E) locus of control scale. According to Rotter, a high internal score on this scale indicates the generalized belief that one's outcomes are under the control of one's behavior. In contrast, a high external score indicates the belief that one's outcomes are determined by external factors such as powerful others or chance.

Researchers interested in the antecedents of political activism have investigated the hypothesis that internals, believing that they have control over outcomes, should be more likely to engage in social and political action. The results of this work have been discouraging (Levinson, 1981). A review of 30 studies investigating the relationship between I-E scores and socio-political action taking (Klandermans, 1983) found that in 19 of these studies no relationship was obtained. Of the remaining studies, five reported relationships in the predicted direction, four reported relationships in the opposite direction, and two reported contradictory data. Indeed, much of the work that has attempted to link I-E scores with

the performance of specific behaviors has failed to obtain the hypothesized relationships (Lefcourt, 1981).

Within the realm of socio-political activism, a similar construct, termed political efficacy, has been utilized in an attempt to predict the performance of activist behavior. Political efficacy refers to the belief that one's actions can have an impact on the political process (Pavelchak & Schofield, 1985). A frequently used measure among political activism researchers to tap into this construct is Campbell's Political Efficacy Scale (Campbell, Gurin, & Miller, 1954), originally developed to predict political participation in the 1952 presidential election. This five-item measure is composed of statements that refer to perceptions of control over the political process in general, such as "I don't think public officials care much about what people like me think" and "Voting is the only way that people like me can have any say about how the government runs things." Subjects' self-reported level of agreement or disagreement with the statements serves as the measure of perceived political efficacy.

As in the case with the I-E scale, researchers have used political efficacy scores in an attempt to predict various modes of socio-political activism for a variety of political issues. Higher perceived political efficacy scores are expected to be associated with greater activist behavior. Again however, the results have been

disappointing. In the antinuclear war research, for example, researchers who have used Campbell's Political Efficacy Scale, or a variant of it, to predict involvement in antinuclear war activism, have reported both significant and nonsignificant results. Tyler and McGraw (1983), using four items from the University of Michigan political efficacy scale, two of which are present on Campbell's scale, found that antinuclear activism was positively correlated with political efficacy. Watanabe and Milburn (1988) also report a positive relationship. However, only one item (present on both Campbell's and the University of Michigan scale), "People like me don't have any say about what the government does," was used to measure political efficacy. Locatelli and Holt (1986), using all five items of Campbell's scale, found a positive relationship in a pilot study but not in the main study. Fox and Schofield (1989) reported no correlation. Lyon and Russo (1990) report a positive correlation between political efficacy and antinuclear behavior; however, neither the items nor their source were reported. Thus, the results of studies investigating general political efficacy, while generally positive, are not as consistent as one might like.

The lack of a consistent relationship between perceived political efficacy and nuclear activism is, perhaps, not surprising. These results, and those obtained using the I-E scale to predict different forms of socio-

political action taking, are to be expected in light of the principle of compatibility (Ajzen, 1988; Ajzen & Fishbein, 1977). According to this principle, in order for a strong statistical relationship between two indicators of a disposition to result, the indicators must be assessed at corresponding levels of generality or specificity. One can not expect, for example, that one's attitude toward religion will strongly correlate with one's church going behavior. The individual's attitude toward religion may be expressed in many possible behavioral domains besides church attendance. However, one's attitude toward attending church can be expected to correlate more strongly with this behavior, as the attitude and behavior measures are assessed at a corresponding level. In general, as the correspondence between two measures of a disposition is increased, the statistical relationship between these two measures is also expected to increase.

Following this logic, the belief that one has control over his or her outcomes in general cannot reasonably be expected to predict behavior in the more specific domain of socio-political activism. While political efficacy scales assess perceptions that are within a more restricted domain than the I-E scale, this domain is still much broader than that of the behavior it attempts to predict. The belief that one can have an influence on the political process may be manifested in any number of ways and with regard to any

number of political issues. It is unreasonable, then, to expect stronger feelings of political efficacy to consistently predict activist behavior for a specific issue.¹

To return to activism against nuclear war, we have seen that there is no consistent relationship between political efficacy and antinuclear war behavior. In order to obtain a more consistent relationship, perceptions of efficacy specific to nuclear war may have to be assessed. Issue-specific, or in this case "nuclear" efficacy (Fox & Schofield, 1989; Watanabe & Milburn, 1988), the belief that one's actions can reduce the threat of nuclear war, would be expected to correlate more consistently with antinuclear behavior than general political efficacy because there is greater compatibility between the efficacy and behavioral measures.

Inspection of the literature is generally consistent with the compatibility principle. The majority of studies with compatible measures have found the predicted relationship (Dyal & Morris, 1987; Kanofsky, 1990; Oskamp, King, Burn, Konrad, & White, 1985; Rounds & Erdahl, 1988;

¹It may be reasonable, however, to expect feelings of political efficacy to correlate with political activism in general if many measures of behavior in a variety of areas are assessed and aggregated (see Ajzen, 1988 for a discussion of the aggregation principle).

Tyler & McGraw, 1983)², and two studies (Fox & Schofield, 1989; McKenzie & Dyal, 1988) have reported mixed results depending on the behavioral measure used. Only one study, Pavelchak and Schofield (1985), reported no significant relationship between antinuclear efficacy and antinuclear activism. Tyler and McGraw's (1983) study is particularly noteworthy as these researchers separately analyzed political efficacy and efficacy specifically related to nuclear war within the same study by utilizing separate scales to assess these two constructs. Responses to both scales correlated positively with subjects' self-reports of antinuclear behavior, but nuclear efficacy, which they termed "war preventability," was found to be more strongly associated with antinuclear behavior than general political efficacy. Lee and Schofield (1989) reported that nuclear efficacy, but not political efficacy, was significantly associated with future performance of an antinuclear behavior, namely signing a petition supporting bilateral disarmament. Thus, as would be predicted by the compatibility principle, greater correspondence between the

²McClenney and Allbright (1985) report a positive relationship between what they term the "Power" scale and antinuclear behavioral intent. This scale combines perceived nuclear efficacy and perceived responsibility to reduce the risk of nuclear war. Since only the results of the Power scale are reported, it is unclear whether or not nuclear efficacy alone correlated positively with antinuclear behavioral intent in this study.

efficacy and activism measures results in a stronger relationship between them.

While a few researchers have systematically examined the distinction between political efficacy and issue-specific efficacy, most have measured either one or the other. Rarely are items measuring both constructs combined into a single efficacy scale, so at some level the importance of this distinction is recognized. There is, however, another aspect of perceptions of efficacy that has received little if any attention, namely the distinction between impersonal and personal beliefs (Fishbein, 1979). Impersonal, or general beliefs, are beliefs about the outcomes that will result from the performance of a behavior. Personal beliefs, on the other hand, are beliefs concerning the outcomes that will result from one's own performance of a behavior. For example, an impersonal belief with regard to perceptions of political efficacy might be assessed by an item such as "I believe that the government can be influenced by writing elected officials." An item assessing a personal political efficacy belief might be "I believe that I can influence the government by writing elected officials."

Unfortunately, few, if any, activism researchers distinguish between personal and impersonal beliefs and sometimes combine both types of beliefs within a single efficacy scale (e.g., Dyal & Morris, 1987). Rationally,

there is reason to believe that these two types of beliefs would be differentially associated with activist behavior. Someone who strongly endorses items such as "Government policy regarding the environment can be influenced by lobbying elected representatives" would be considered to have high environmental efficacy. However, while this individual believes that lobbying can be an effective way to influence the government's environmental policy, it is unclear whether or not this person believes that he or she can influence the government's environmental policy by performing this or any other behavior. On the other hand, a personal efficacy belief, for example, "I believe that I can influence government policy regarding the environment by lobbying elected representatives," indicates the individual's belief that his or her own behavior will be effective. Since self-report behavior items ask the respondent if he or she has engaged in various behaviors, personal efficacy beliefs items are the more compatible measure; a higher correlation with the performance of environmental activist behaviors is expected.

On average then, personal efficacy beliefs are predicted to be more highly associated with activist behavior than impersonal efficacy beliefs. Although, to the best of my knowledge, there are no data within the activist literature in support of this hypothesis, a study conducted by Fishbein (1979) in a different domain

generated data that are supportive. This study was concerned with predicting behavioral intent with regard to cigarette smoking from beliefs and attitudes concerning this behavior. Fishbein found that beliefs and attitudes towards "my smoking" or "my not smoking," i.e., personal beliefs, were more strongly correlated with behavioral intent to smoke (or not to smoke) than beliefs and attitudes toward smoking in general. Thus, these results provide some support, albeit indirect, for the prediction that personal efficacy beliefs are more strongly related to activist behavior than impersonal efficacy beliefs.

The purpose of the present study was to test the utility of the political vs. issue-specific efficacy, and impersonal vs. personal efficacy beliefs distinctions. Four classifications of efficacy perceptions result: impersonal political efficacy, personal political efficacy, impersonal issue-specific efficacy, and personal issue-specific efficacy. The following definitions will be adopted: Impersonal political efficacy (IPE) refers to the belief that the political process can be influenced by political action taking; personal political efficacy (PPE) refers to the belief that one's own political actions can influence the political process; impersonal issue-specific efficacy (IIE) refers to the belief that the political process concerning a specific issue (e.g., the threat of nuclear war, the state of the environment) can be

influenced by political action taking; personal issue-specific efficacy (PIE) refers to the belief that one's own political actions can influence the political process concerning a specific issue.

Of course, there are additional potential distinctions among measures of perceived efficacy other than the ones tested in this study. For example, McKenzie-Mohr and Dyal (1988) have proposed that an individual's perceptions of group-based or collective efficacy might be more strongly associated with antinuclear war activism than an individual's perceptions of his or her own efficacy working alone. Theoretically, however, there is no reason to expect collective efficacy to be more highly associated with activism, even in the antinuclear war domain where an individual is likely to feel particularly powerless to effect change on his or her own. In fact, one might predict the opposite. Someone who does feel able to effect change on his or her own would likely have particularly high efficacy beliefs and therefore might be expected to engage in considerable antinuclear behavior. However, a study that did examine individual and collective perceptions of efficacy independently (Kanofsky, 1990), found that both correlated with antinuclear behavior almost equally ($r = .31$ for individual, $r = .29$ for collective), and that responses to the two scales themselves were highly correlated ($r = .77$).

One possible explanation for Kanofsky's results is that it is unclear whether respondents necessarily interpret individual efficacy items such as, "I feel I can have an impact on the political process," to mean that they can have an impact on the political process by themselves. Group-based efficacy items such as, "Citizens working together can have an impact on the political process," on the other hand, make it clear to respondents that they are to indicate their perceptions of the efficacy of the collective. Individual efficacy items, then, would assess a broader range of efficacy perceptions than would group-based items. Therefore, in the present study it was decided to frame all personal efficacy items at the individual level.

Previous research has primarily examined perceptions of the efficacy of general actions (e.g., influencing government policies). While such efficacy items imply the performance of more specific behaviors (e.g., signing a petition, writing a letter to a representative), the specific behaviors that one might engage in are not made explicit. However, the majority of activist behavior measures are created by aggregating the number of times subjects performed relatively specific behaviors (e.g., writing letters to public officials or sending money to an activist organization). Here, the specific behaviors that one might have engaged in are made explicit. Thus, in the

present study, "explicit action" efficacy items were developed to assess the perceived efficacy of performing relatively specific behaviors in addition to the more general, or "implicit action" efficacy measures used in prior research. In total, then, three distinctions between perceptions of efficacy will be tested in this study: political vs. issue-specific efficacy, personal vs. impersonal beliefs, and implicit vs. explicit action efficacy. While no predictions are advanced concerning the implicit vs. explicit action efficacy distinction, the possibility that the two measures correlate differentially with activism will be examined. Even among the more specific types of activist behaviors that researchers commonly utilize to measure activism, it is likely that a great deal of variation exists. It is important to realize that antinuclear activity (Waldron, Baron, Frese, & Sabini, 1988), as well as activism for other issues may not fall on a single dimension. For example, McKenzie & Dyal (1988) suggest that conventional forms of activity (e.g., information gathering and discussion) should be distinguished from more unconventional forms of activity (e.g., demonstrating). Of course, a variety of other dimensions of activist behavior may exist. For example, feelings of efficacy may be differentially associated with activist behaviors taken within existing political channels (e.g., writing letters to public officials), and activist

behaviors taken outside existing political channels (e.g., demonstrating or picketing). While no such predictions will be advanced in this study, the possibility that different dimensions of activist behavior exist and influence the efficacy-activism relation will be explored.

Two hypotheses are advanced. 1) Issue-specific efficacy (whether personal or impersonal) is more strongly associated with activist behavior than is political efficacy. Thus, environmental efficacy, or efficacy beliefs with regard to improving the quality of the environment for example, is expected to correlate more highly with environmental activism than beliefs regarding general political efficacy. 2) Personal efficacy beliefs (whether political or issue-specific) are more strongly associated with activist behavior than are impersonal efficacy beliefs.

Three issues, the threat of nuclear war, the state of the environment, and the current financial situation at the University of Massachusetts at Amherst were used to test these predictions. The threat of nuclear war was an issue of substantial concern during the 1980's. A vast amount of psychological research was conducted during this period examining the public's reaction to this tragic possibility (see Fiske, 1987; Schatz & Fiske, in press for reviews). Likelihood perceptions and worry about nuclear war peaked during the first half of the 1980s, leveled off, and

subsequently declined. Currently, nuclear war is not a particularly salient issue among the general public (Schatz & Fiske, in press). Therefore, antinuclear activism may currently be on the wane; however, I am not aware of any recent estimates. Thus, while the threat of nuclear war may not be a good issue by which to test the efficacy-activism relation, at the very least, the results will provide a current estimate of the amount of antinuclear activity on a college campus.

While concern about nuclear war has diminished, the state of the environment is currently one of the fastest growing concerns in this country, and indeed throughout much of the world. The growth of the environmental movement is evidenced in national polls (Gallup Polls, 1988-1989; Gallup & Newport, 1990), increased media coverage (Allen, 1990), and the rise of grass roots movements devoted to protecting and improving the quality of the environment (Painton, 1990). Concern about the environment is not limited to any particular demographic group, and indeed the current environmental movement is broad-based (Gallup Poll, 1989; Gallup & Newport, 1990; Painton, 1990). Importantly, a significant increase in concern among college students has developed over the last few years (Dodge, 1990). Thus, concern about the environment presents a good opportunity to explore the efficacy-activism relation.

In selecting a third issue to examine, I decided to take advantage of an issue that has recently begun to affect undergraduates at the University of Massachusetts at Amherst, namely, the level of funding for the university. In an effort to balance the Massachusetts state budget, a series of cuts in public higher education dollars has hit the university over the last year. These cuts have already adversely impacted the campus community due to a hiring freeze on both administrative and faculty positions, a reduction in the number of courses offerings, increased tuition and fees, and decreased student enrollment. Further cuts of yet unknown proportions are likely to ensue, and entire academic and student support programs are predicted to be either substantially reduced or eliminated altogether. Some students on this campus have already taken action to fight these cuts. For example, a number of University of Massachusetts students joined students from other state universities in a demonstration at the state's capital to protest the cuts in funding for higher education in Massachusetts. Thus, both the level of state educational funding and the quality of the environment are issues that can be expected to inspire enough political action-taking to test the efficacy-activism predictions that have been advanced.

CHAPTER 2

PILOT STUDY

Before testing the hypotheses it was necessary to develop items to measure IPE, PPE, IIE, and PIE. While some existing efficacy items might adequately assess the proposed classifications, none had been designed for this purpose. Therefore, all items used in the pilot study were either modified versions of existing items or were written by the experimenter. Most importantly, there are no existing scales that measure the four proposed efficacy classifications. Therefore, a pilot study was conducted to develop such scales.

Method

Subjects

One hundred fifty-three undergraduates enrolled in at least one psychology class at the University of Massachusetts at Amherst participated in the study purportedly assessing people's perceptions of the government and the operation of the political system. Subjects were tested in groups. Of the total sample, 39 were male, 110 were female and four did not indicate gender. All subjects received one experimental credit for their participation.

Materials and Procedures

Efficacy Beliefs. Impersonal political efficacy items were constructed to measure the extent to which respondents

believed that the government can be influenced (e.g., "It is possible to influence government policies"). Personal political efficacy items, on the other hand, were constructed to measure the extent to which respondents believed that they themselves are capable of influencing the government (e.g., "I can influence government policies"). A total of 21 items was created for each type of political efficacy (see Appendices 1 and 2).

Of these 21 items, five were written to assess perceptions of the efficacy of performing activist behaviors at a relatively general level, the implicit action efficacy measure, and 16 were written to assess perceptions of the efficacy of performing more specific activist behaviors, the explicit action efficacy measure. The implicit action political efficacy items were loosely based on political efficacy items used by Campbell et al., (1954) and Tyler & McGraw (1983). The above examples of a personal and impersonal political efficacy item are also implicit action efficacy items. The explicit action efficacy items were created by framing efficacy statements around behaviors that have served as political activism measures in the antinuclear war (McKenzie-Mohr & Dyal, 1988; Locatelli & Holt, 1986; Werner & Roy, 1985) and environmental (Bachrach & Zautra, 1985; Taylor & Dorceta, 1989) activism literature. For example, the activist behavior of petition signing generated the explicit action

personal political efficacy item, "By signing petitions, I can help to change the way things are run in this country," and the explicit action impersonal political efficacy item, "Signing petitions can help to change the way things are run in this country."

Issue-specific efficacy items were developed by modifying the political efficacy items such that the items referred specifically to each of the issues to be tested. For example, a personal issue-specific efficacy item for improving the quality of the environment was created by modifying the above personal political efficacy item to read "By signing petitions, I can help to improve the quality of the environment." In this manner, a total of 21 personal issue-specific items, and 21 impersonal issue-specific items were created for each issue. As with the political efficacy items, five implicit action efficacy items (e.g., "I can get the government to work toward improving the quality of the environment"), and 16 explicit action efficacy items (e.g., "I can improve the quality of the environment by writing or phoning public officials") were constructed.

In addition, three personal and three impersonal environmental efficacy items were created by the experimenter. These items were developed to assess the perceived efficacy of behaviors thought to be important, but limited to, the domain of environmental activism:

boycotting environmentally irresponsible products, picking up litter, and participating in a recycling program. Thus, a total of 24 personal and 24 impersonal issue-specific efficacy items were created for the environment. All efficacy items, both political and issue-specific, were framed as statements (see Appendices 3-8 for all issue-specific efficacy items). Subjects responded to each item on a 5-point scale with "strongly agree" and "strongly disagree" as anchors.

Activism. The sixteen political activism items were constructed from the same behaviors used to construct the explicit action political efficacy items. Thus, each of the political activism items corresponded to one of the explicit action political efficacy items (see Appendix 9). Like the issue-specific efficacy items, the issue-specific activism items were created by modifying the political activism items so that they referred specifically to the three issues to be tested. For example, the antinuclear activism item, "tried to reduce the threat of nuclear war by signing a petition" was developed from the political activism item, "signed a petition." Since the number of activism items for each issue corresponded to the number of explicit action efficacy items for that issue, 16 activism items were developed for reducing the threat of nuclear war, 16 for improving the financial situation at U Mass, and 19 for improving the quality of the environment (see

Appendices 10, 11, and 12). Subjects responded to the activism items by indicating how often they have engaged in each of the behaviors in the past six months on a 6-point scale with "never" and "over 20 times" as anchors.

Design

Type of efficacy belief, i.e., personal and impersonal, and the object of that belief, i.e., influencing the government, reducing the threat of nuclear war, improving the quality of the environment, or improving the financial situation at U Mass, served as between-subjects independent variables with presentation order of the efficacy and behavior items counterbalanced across conditions. Implicit and explicit action efficacy items served as a within-subjects variable as subjects in each condition responded to both types of efficacy items. The implicit action efficacy items were presented before the explicit action efficacy items. Order of presentation within each of these two sets of items was random but the same for each of the four efficacy belief objects. The three additional environmental efficacy items appeared in random order at the end of the explicit action efficacy items. A separate randomization was employed for all four sets of activism items. Again, the three additional environmental activism items were separately randomized and appeared at the end of the set.

Questionnaires that contained a set of political efficacy items also contained a set of political activism items and a set of one of the three issue-specific activism items. Both types of activism items were included so that the strength of their relationships with political efficacy could be compared. Questionnaires that contained a set of issue-specific efficacy items for one of the three issues also contained a set of activism items for the same issue. Since both personal and impersonal efficacy belief items were constructed, and presentation order was counterbalanced across conditions, a total of 24 different versions of the questionnaire were constructed, 12 containing a set of political efficacy items and 12 containing a set of issue-specific efficacy items (see Appendix 13).

Results

The pilot study was conducted to develop reliable scales to measure the IPE, PPE, IIE, and PIE efficacy classifications. Standardized alpha coefficients were computed using the reliability procedure in the SPSS-X statistical program. The majority of scales demonstrated adequate reliabilities with alpha coefficients typically ranging between .75 and .92. However, four efficacy scales were of questionable or poor reliability: the personal beliefs-explicit action environmental efficacy scale ($\alpha = .68$), the impersonal beliefs-implicit action political

efficacy scale ($\alpha = .71$), and the impersonal beliefs-implicit action nuclear efficacy and environment efficacy scales (α s = .08, .55 respectively). Since three of the four problematic scales were impersonal beliefs-implicit action efficacy scales, new items were developed and tested in order to construct more reliable measures.

CHAPTER 3

PILOT STUDY TWO

Method

Subjects

Sixty-eight undergraduates enrolled in at least one psychology class at the University of Massachusetts at Amherst participated in the study purportedly assessing people's perceptions of the government and the operation of the political system. As in the first pilot study, subjects were tested in groups. Of the total sample, 20 were male and 48 were female. All subjects received one experimental credit for their participation.

Materials and Procedures

Fifteen impersonal beliefs-implicit action political efficacy items were constructed. An equal number of items were constructed for each of the three issues by modifying the political efficacy items such that the items referred specifically to each issue. Corresponding personal beliefs-implicit action items were also developed so that the resulting personal and impersonal beliefs scales would correspond to one another. Order of presentation for each set of 15 items was random and the same for each set (see "Materials and Procedures" section for the first pilot study).

Half of the subjects completed a questionnaire containing 60 personal beliefs-implicit action efficacy

items, 15 for political efficacy and 15 for each of the three issues. The other half of the subjects completed the corresponding set of items framed as impersonal beliefs. The political efficacy items were presented first, followed by the three sets of issue-specific efficacy items. Presentation order for the three sets of issue-specific efficacy items was counterbalanced across the belief conditions.

Results

Reliabilities were excellent; standardized item alpha coefficients exceeded .93 for all eight 15-item scales. After examining item-total correlations, five of the 15 items were selected from each scale for use in the main study (see Appendices 14 and 15). Standardized alpha coefficients for the 5-item scales ranged from .81 to .93 for the four impersonal belief scales, and from .88 to .93 for the four personal beliefs scales. Thus, the impersonal beliefs-implicit action efficacy scales, and corresponding personal belief scales, both demonstrated adequate reliability and could be utilized in the main study.

CHAPTER 4

MAIN STUDY

Method

Subjects

Three hundred ninety undergraduates enrolled in at least one psychology class at the University of Massachusetts at Amherst participated in the study. The alleged purpose of the study was identical to that in the two pilot studies, and subjects were again tested in groups. Of the total sample, 112 were male, 276 were female, and two did not indicate gender. All subjects received one experimental credit for their participation.

Materials and Procedures

The questionnaires were identical to those used in the first pilot study with two exceptions: 1. The new implicit action efficacy scales were utilized. 2. A set of instructions was added to the questionnaires in order to more clearly convey the intended meaning of the personal and impersonal belief items. In the personal beliefs condition, participants were instructed to indicate to what extent they believed that they "personally" could have an influence. Conversely, in the impersonal beliefs condition, participants were instructed indicate to what extent they believed that "it is possible" to have an influence, "not your beliefs concerning your personal

ability to do so." Otherwise, the questionnaires and all procedures were unchanged.

Results

Scale Reliabilities and Mean Scores

Reliabilities were again calculated for all scales. Standardized alpha coefficients ranged from .82 to .95 for the personal beliefs efficacy scales, .81 to .87 for the impersonal beliefs efficacy scales, and from .84 to .92 for the activism scales (see Table 1). Thus, all scales used in the study demonstrated high reliability.

Means and standard deviations for the efficacy and behavior scores are presented in Table 2. Responses to the 19-item environmental explicit action efficacy and activism scales were compared to the corresponding 16-item scales. Self-reported efficacy and activism scores were significantly higher for both the 19-item explicit action-environmental efficacy scale, $t(129) = 9.03$, $p < .001$, and environmental activism scale, $t(129) = 23.57$, $p < .001$. However, the 16-item and 19-item scales were very highly correlated ($r = .99$ for the efficacy scales, $r = .93$ for the activism scales). Due to these high intercorrelations, and the fact that 16-item environmental scales corresponded to the nuclear war and U Mass scales, the 19-item scales were not used in any further analyses.

Table 1
Efficacy and Activism Scale Reliabilities

Efficacy Scales

Efficacy Type	<u>Personal Beliefs</u>		<u>Impersonal Beliefs</u>	
	n	alpha	n	alpha
<u>Political</u>				
Implicit Action	102	.8214	96	.8064
Explicit Action	101	.8211	96	.8717
<u>Nuclear</u>				
Implicit Action	32	.9244	32	.8503
Explicit Action	32	.9466	32	.8464
<u>U Mass</u>				
Implicit Action	32	.9268	32	.8632
Explicit Action	32	.9223	32	.8521
<u>Environmental</u>				
Implicit Action	32	.8936	32	.8014
Explicit Action	32	.8529	32	.8315
Explicit Action*	32	.8615	32	.8367

Activism Scales

Activism Type	n	alpha
Political	195	.8395
Antinuclear	130	.9167
U Mass	130	.8744
Environmental	129	.8629
Environmental*	129	.8596

* Alphas calculated utilizing the 19-item Environmental scales.

Table 2
Means and Standard Deviations on Efficacy and Activism Scales

Efficacy Scales

Efficacy Type	<u>Personal Beliefs</u>		<u>Impersonal Beliefs</u>	
	M	SD	M	SD
<u>Political</u>				
Implicit Action	3.30	.745	3.49	.559
Explicit Action	3.29	.508	3.90	.572
Average Efficacy	3.29	.506	3.59	.519
<u>Nuclear</u>				
Implicit Action	3.38	.898	3.66	.675
Explicit Action	3.38	.794	3.31	.533
Average Efficacy	3.38	.785	3.39	.494
<u>U Mass</u>				
Implicit Action	3.39	.924	3.63	.678
Explicit Action	3.30	.698	3.48	.533
Average Efficacy	3.32	.715	3.52	.513
<u>Environmental</u>				
Implicit Action	3.65	.748	3.94	.639
Explicit Action	3.61	.455	3.68	.488
Explicit Action*	3.74	.419	3.81	.442
Average Efficacy	3.62	.461	3.74	.473
Average Efficacy*	3.72	.436	3.84	.440

Activism Scales

Activism Type	M	SD
Political	1.82	.529
Antinuclear	1.38	.536
U Mass	1.68	.507
Environmental	1.56	.443
Environmental*	1.93	.484

* Means and standard deviations calculated utilizing the 19-item Environmental scales

All efficacy scores were collapsed across belief type (personal or impersonal) and action type (implicit action efficacy or explicit action efficacy), in order to obtain mean efficacy scores for reducing the threat of nuclear war ($\bar{M} = 3.38$), improving the quality of the environment ($\bar{M} = 3.68$), and improving the financial situation at U Mass ($\bar{M} = 3.42$). A one-way ANOVA revealed that mean levels of efficacy differed significantly by issue $F(2,189) = 4.77, p < .01$. The Student-Newman-Keuls (SNK) procedure revealed that the environmental efficacy scores were significantly higher than both the nuclear war and U Mass efficacy scores which did not differ significantly from each other. Mean levels of activism also differed significantly by issue $F(2,387) = 11.74, p < .001$. The SNK procedure revealed that the environmental and U Mass activism scores ($\bar{M}s = 1.56$ and 1.68 respectively) were both significantly higher than the antinuclear war activism scores ($\bar{M} = 1.38$), but did not differ significantly from each other. As expected, the state of the environment and the financial problems at the university stimulated more activism than did the threat of nuclear war.

Condition Effects

Efficacy and activism scores were subjected to a 4-way Efficacy Condition (Issue-specific vs. Political) X Beliefs Condition (Personal vs. Impersonal) X Order Condition (Efficacy items first vs. Activism items first) X Issue

Condition (Nuclear War vs. Environment vs. U Mass) analysis of variance. These analyses were performed to examine the possibility that condition assignment affected subjects' efficacy or activism scores. As is apparent by examining Tables 3-6, the majority of results are nonsignificant. Significant and marginally significant results are discussed below.

Implicit Action Efficacy Scores. Condition effects on the implicit action efficacy scores are presented in Table 3. The highly significant beliefs condition main effect revealed that higher levels of implicit action efficacy were reported by subjects in the impersonal beliefs versus the personal beliefs condition. As might be expected, subjects agreed more strongly with statements expressing the possibility of having an influence in the abstract than with statements expressing the possibility that they themselves could have an influence. This effect was qualified by a significant Efficacy Condition X Belief Condition interaction. Simple effects analyses revealed marginally greater $F(1,190) = 2.93, p < .09$, self-reported political efficacy ($M = 3.90$) versus issue-specific efficacy ($M = 3.74$) for subjects in the impersonal beliefs condition, but a nonsignificant, $F(1,190) = 2.19, p < .15$ trend in the opposite direction for subjects in the personal beliefs condition ($M = 3.30$ for political efficacy, $M = 3.47$ for issue-specific efficacy). A

Table 3
Condition Effects: Implicit Action Efficacy

Source of Variation	Sum of Squares	DF	Mean Square	F	p
Main Effects	20.850	5	4.170	8.023	.000
Efficacy	.005	1	.005	.010	.919
Belief	18.218	1	18.218	35.051	.000
Order	.067	1	.067	.130	.719
Issue	2.546	2	1.273	2.449	.088
2-way Interactions	3.750	9	.417	.802	.615
Efficacy Belief	2.544	1	2.544	4.894	.028
Efficacy Order	.117	1	.117	.225	.636
Efficacy Issue	.988	2	.494	.950	.388
Belief Order	.019	1	.019	.036	.850
Belief Issue	.075	2	.037	.072	.931
Order Issue	.013	2	.007	.013	.987
3-way Interactions	4.498	7	.643	1.236	.282
Efficacy Belief Order	.055	1	.055	.105	.746
Efficacy Belief Issue	.122	2	.061	.117	.889
Efficacy Order Issue	4.312	2	2.156	4.148	.017
Belief Order Issue	.004	2	.002	.004	.996
4-way Interactions	1.751	2	.876	1.685	.187
Explained	31.127	23	1.353	2.604	.000
Residual	190.232	366	.520		
Total	221.360	389	.569		

marginally significant ($p < .09$) issue condition main effect also emerged. Inspection of the means revealed higher implicit action efficacy when subjects completed the environmental activism scale ($M = 3.71$) than when they completed either nuclear or U Mass activism scales (both $M_s = 3.54$). Note that the political and issue-specific efficacy scores are combined in the issue condition main effect analysis. When only the issue-specific efficacy scores were analyzed (see "Reliabilities and Mean Scores" section), the issue condition main effect was significant, with differences between mean scores exhibiting the same pattern as when the issue-specific and political efficacy scores were analyzed together. However, this effect was qualified by an uninterpretable 3-way Issue Condition X Efficacy Condition X Order interaction.

Explicit Action Efficacy Scores. Condition effects on the explicit action efficacy scores are presented in Table 4. A significant beliefs main effect also resulted for the explicit action efficacy scores, again revealing greater efficacy reported in the impersonal versus personal beliefs condition. This effect was not qualified by any interactions. Neither the efficacy condition nor the issue condition main effects were significant (both $p_s > .10$); however, a significant Efficacy Condition X Issue Condition interaction did emerge. Simple effects analyses revealed that the interaction was accounted for by significantly

Table 4
Condition Effects: Explicit Action Efficacy

Source of Variation	Sum of Squares	DF	Mean Square	F	p
Main Effects	3.496	5	.699	2.169	.057
Efficacy	.459	1	.459	1.424	.234
Belief	1.777	1	1.777	5.513	.019
Order	.099	1	.099	.306	.580
Issue	1.134	2	.567	1.759	.174
2-way Interactions	3.581	9	.398	1.235	.272
Efficacy Belief	.531	1	.531	1.648	.200
Efficacy Order	.196	1	.196	.608	.436
Efficacy Issue	2.368	2	1.184	3.673	.026
Belief Order	.012	1	.012	.038	.846
Belief Issue	.462	2	.231	.716	.489
Order Issue	.027	2	.014	.043	.958
3-way Interactions	1.856	7	.265	.822	.569
Efficacy Belief Order	.233	1	.233	.723	.396
Efficacy Belief Issue	.530	2	.265	.822	.442
Efficacy Order Issue	.615	2	.307	.954	.386
Belief Order Issue	.493	2	.247	.765	.466
4-way Interactions	1.573	2	.787	2.440	.089
Explained	10.500	23	.457	1.416	.098
Residual	117.965	366	.322		
Total	128.465	389	.330		

higher, $F(1,128) = 12.26$, $p < .001$, environmental efficacy ($M = 3.64$) verses political efficacy ($M = 3.36$); the difference between issue-specific and political efficacy was not significant for either nuclear war, $F(1,128) = .51$, $p > .40$, or U Mass, $F(1,128) = .013$, $p > .90$). Finally, a marginally significant ($p < .09$) but uninterpretable Efficacy Condition X Beliefs Condition X Order Condition X Issue Condition 4-way interaction was found. No other effects on either the implicit or explicit action scores were significant or marginally significant.

Issue-specific Activism. Condition effects on the issue-specific activism scores are presented in Table 5. A marginally significant efficacy condition main effect was found ($p < .07$) indicating that more issue-specific activism was reported by subjects in the issue-specific versus political efficacy condition. This effect was qualified by a significant Efficacy Condition X Belief Condition interaction. Simple effects analyses revealed marginally greater, $F(1,190) = 3.78$, $p < .06$, issue-specific activism in the personal vs. impersonal issue-specific efficacy condition ($M_s = 1.67$ and 1.51 respectively), but marginally less, $F(1,196) = 3.49$, $p < .07$, issue-specific activism in the personal vs. impersonal political efficacy condition ($M_s = 1.44$ and 1.56 respectively). Finally, a marginally significant, ($p < .06$) Belief Condition X Order Condition interaction was

Table 5
Condition Effects: Issue-specific Activism

Source of Variation	Sum of Squares	DF	Mean Square	F	p
Main Effects	6.611	5	1.322	5.583	.000
Efficacy	.821	1	.821	3.465	.063
Belief	.024	1	.024	.101	.751
Order	.046	1	.046	.196	.658
Issue	5.724	2	2.862	12.085	.000
2-way Interactions	5.773	9	.641	2.709	.005
Efficacy Belief	1.856	1	1.856	7.835	.005
Efficacy Order	.999	1	.999	4.217	.041
Efficacy Issue	1.046	2	.523	2.209	.111
Belief Order	.850	1	.850	3.591	.059
Belief Issue	.345	2	.173	.729	.483
Order Issue	.721	2	.360	1.522	.220
3-way Interactions	1.284	7	.183	.774	.609
Efficacy Belief Order	.008	1	.008	.032	.859
Efficacy Belief Issue	.542	2	.271	1.145	.319
Efficacy Order Issue	.515	2	.257	1.087	.338
Belief Order Issue	.209	2	.105	.442	.643
4-way Interactions	.819	2	.410	1.730	.179
Explained	14.59	23	.635	2.680	.000
Residual	86.676	366	.237		
Total	101.271	389	.260		

also found. This interaction was accounted for by two nonsignificant, but opposing trends: when the efficacy items were presented first, subjects reported greater issue-specific activism in the personal ($\bar{M} = 1.58$) versus impersonal ($\bar{M} = 1.48$) beliefs condition, $F(1,193) = 2.31$, $p > .10$; however, when the behavior items were presented first, subjects reported greater issue-specific activism in the impersonal condition ($\bar{M}s = 1.59$ and 1.51), $F(1,193) = 1.07$, $p = .30$.³

Political Activism. Since only subjects in the political efficacy conditions responded to the political activism items, Efficacy Condition could not be entered into the analyses. Thus, a Beliefs Condition X Order Condition X Issue Condition 3-way analysis of variance was performed (see Table 6). Only a main effect for Belief Condition was found such that higher levels of activism were reported by subjects in the impersonal ($\bar{M} = 1.92$) versus the personal ($\bar{M} = 1.72$) beliefs condition. No other significant or marginally significant effects on either the issue-specific or political activism scores were found (all $ps > .10$).

³As already discussed, (see "Reliabilities and Mean Scores" section), levels of self-reported activism differed across issues, with significantly less antinuclear activism than either environmental or U Mass activism. This main effect for issue condition was also highly significant in 4-way ANOVA, $F(2,366) = 12.09$, $p < .001$.

Table 6
Condition Effects: Political Activism

Source of Variation	Sum of Squares	DF	Mean Square	F	p
Main Effects	2.671	4	.668	2.439	.049
Belief	1.950	1	1.950	7.124	.008
Order	.488	1	.488	1.781	.184
Issue	.246	2	.123	.450	.639
2-way Interactions	1.077	5	.215	.787	.560
Belief Order	.438	1	.438	1.601	.207
Belief Issue	.504	2	.252	.921	.400
Order Issue	.130	2	.065	.237	.790
3-way Interaction	.574	2	.287	1.048	.353
Explained	4.289	11	.390	1.424	.165
Residual	50.646	185	.274		
Total	54.934	196	.280		

Summary of Condition Effects. As is apparent by examining mean differences and degrees of freedom, most condition effects are small in magnitude, but often reach significance because of the large sample sizes. With the exception of the higher levels of impersonal versus personal efficacy, and the differences between issues in levels of self-reported activism (see above), these effects are of little theoretical significance, and shed little interpretive light upon the data. Presentation order had minimal effects on either the efficacy or activism scores and, therefore, was not included as a factor in any subsequent analyses.

Correlations and Regressions

Overview of analyses. Standardized efficacy and activism scores were computed within each issue condition so that differences in mean scores between issues would not affect the results when efficacy-activism correlations were computed across the three issues. The efficacy-activism relation was examined by utilizing a forced-entry hierarchical regression model. Efficacy condition, belief condition, and efficacy score were entered as predictor variables of the dependent measure, activism score. Dummy coding was used to represent the two efficacy conditions (1 = political efficacy, -1 = issue-specific efficacy), and the two belief conditions (1 = personal beliefs, -1 = impersonal beliefs). Efficacy Condition X Efficacy Score

crossproduct terms were computed and used to test for efficacy main effects on the efficacy-activism relation; Belief Condition X Efficacy Score crossproduct terms were computed and used to test for belief condition main effects on the efficacy-activism relation. For example, an efficacy main effect (a difference in the strength of the correlation between efficacy and issue-specific activism) was tested by entering efficacy condition (E), efficacy score (S), and lastly, the Efficacy Condition X Efficacy Score crossproduct term (ES) into the regression equation with issue-specific activism (Y) as the dependent measure. A significant increase in the amount of variance accounted for by the crossproduct term over and above that accounted for by efficacy condition and efficacy score alone indicates a significant main effect for political vs. issue-specific efficacy. An Efficacy Condition X Belief Condition X Efficacy Score crossproduct term (EBS) was calculated and used to test for interaction effects between political vs. issue-specific efficacy and personal vs. impersonal beliefs (see Cohen, 1978). In this analysis, efficacy condition (E), belief condition (B), efficacy score (S), the Efficacy Condition X Efficacy Score crossproduct term (ES), Belief Condition by Efficacy Score crossproduct term (BS), and the Efficacy Condition by Belief Condition crossproduct term (EB) are all entered as predictor variables before the Efficacy Condition X Belief

Condition X Efficacy Score (EB)S crossproduct term. If the addition of (EB)S significantly improves the efficacy-activism relation, the interaction is significant. All analyses were conducted using the SPSS-X statistical package.

Implicit and Explicit Action Efficacy. Responses to the 5-item implicit action efficacy scale and 16-item explicit action efficacy scales were moderately to highly intercorrelated. (Recall that all subjects completed both types of scales.) Averaging across issues, the correlations between the two scales in the four cells of the design--political efficacy-personal beliefs, political efficacy-impersonal beliefs, issue-specific efficacy-personal beliefs, and issue-specific efficacy-impersonal beliefs--were .53, .60, .70, and .51 respectively. Because the two scales were intercorrelated, a pooled scale (which shall be referred to as such) was also constructed. Subsequent analyses were conducted on the implicit action scale, explicit action scale, and on the pooled scale.

Hypotheses Tests: Effects of Efficacy and Belief Type

Across Issues Analyses. Correlations between the efficacy and activism scales for the four efficacy and belief type combinations are presented in Table 7. Mean issue-specific efficacy and activism scores were computed by averaging across the efficacy and activism scores for the three issues. With the exception of the implicit

action-impersonal beliefs issue-specific efficacy scale, all efficacy-activism correlations were significant beyond the .05 level.

Issue-specific activism was predicted to be more strongly related to issue-specific efficacy than to political efficacy. This effect was significant for the explicit action efficacy scale, $F(1,386) = 6.27, p < .05$, and for the pooled scale, $F(1,386) = 4.46., p < .05$, but not for the implicit action scale, $F(1,386) = .61, p > .40$. A similar pattern of results was found for the beliefs prediction: personal beliefs correlated more highly with issue-specific activism than impersonal beliefs when efficacy scores were obtained utilizing the explicit action scale, $F(1,386) = 5.54, p < .05$, the pooled scale, $F(1,386) = 4.01, p < .05$, but not the implicit action scale, $F(1,386) = 1.16, p > .20$. Thus, across issues, both predicted main effects were significant when efficacy was measured at a level compatible with the activism measure, but not when efficacy was measured at a more general level.

The Efficacy X Beliefs interaction was significant for the implicit action efficacy scale, $F(1,382) = 4.95, p < .03$, but only approached significance for the explicit action scale, $F(1,382) = 2.56, p < .12$, and the pooled scale, $F(1,382) = 2.82, p < .10$. Although no interaction was predicted, I had suspected that the political efficacy-issue activism relation might be so weak that the beliefs

manipulation would have little effect and, therefore, that personal beliefs might correlate more highly with issue-specific activism than would impersonal beliefs, but only for issue-specific efficacy. Simple effects analyses supported this reasoning. For political efficacy, the beliefs simple effect was nonsignificant, $F(1,194) = 1.33$, $p > .20$, $F(1,194) = .00$, $p > .90$, and $F(1,194) = .05$, $p > .80$ for the implicit action, explicit action, and pooled scales respectively. For issue-specific efficacy, however, the beliefs simple effect was significant for all three scales: $F(1,194) = 4.02$, $F(1,194) = 5.03$, $F(1,194) = 4.45$, all $ps < .05$. (For ease of presentation, results involving the implicit action, explicit action, and pooled scales are always presented in that order unless otherwise noted.) Efficacy simple effects were also analyzed. Since the efficacy-activism relation for impersonal beliefs was relatively weak, one might predict a significant efficacy simple effect only when the items are framed as personal beliefs. Again, the analyses supported this reasoning: In comparison to political efficacy, issue-specific efficacy was more highly correlated with issue-specific activism when the efficacy statements were framed personally, $F(1,194) = 4.71$, $p < .05$, $F(1,194) = 7.35$, $p < .01$, $F(1,194) = 6.76$, $p < .01$, but not when framed impersonally, $F(1,194) = 1.25$, $p > .20$, $F(1,194) = .40$, $p > .50$, $F(1,194) = .08$, $p > .70$.

Across issues then, both predicted main effects were significant for the explicit action and pooled scales, but not the implicit action scale. However, simple effects analyses yielded significant results in the predicted directions for all three scales. Clearly, efficacy type and belief type are important moderators of the efficacy-activism relation. A stronger efficacy-activism relation is obtained when efficacy and activism are assessed with compatible measures, that is, when the efficacy statements are specific to the issue, and when they are framed at the personal level. Thus far, however, only analyses conducted on across-issues, issue-specific efficacy and activism scores have been presented; we now turn to the results of analyses performed on each of the three issues separately.

Nuclear War. The effect of efficacy type on the efficacy-activism relation for nuclear war was similar to that obtained across issues: nuclear efficacy was more strongly related to nuclear activism when the efficacy-activism relation was tested using the explicit action scale, $F(1,126) = 7.42, p < .01$, and the pooled scale, $F(1,126) = 7.31, p < .01$; only a marginal trend in the predicted direction emerged for the implicit action scale, $F(1,126) = 2.88, p = .09$.

While the beliefs main effect was nonsignificant (all $ps > .10$), the Efficacy X Beliefs interaction was significant for all three scales, $F(1,126) = 4.02, F(1,126)$

= 5.03, $F(1,126) = 4.22$, all $ps < .05$. Simple effects analyses also yielded results similar to those found in the across issues analyses. The beliefs simple effect was not significant in the political efficacy condition (all $ps > .20$); however, in the nuclear efficacy condition the beliefs simple effect was significant for the implicit action scale, $F(1,126) = 3.29$, $p < .05$, and marginally significant for the explicit action, $F(1,126) = 3.90$, $p < .06$, and pooled scales, $F(1,126) = 3.28$, $p < .08$. Interestingly, the efficacy simple effect was much more pronounced: nuclear efficacy was more strongly related to nuclear activism than was political efficacy when the efficacy statements were framed personally, $F(1,126) = 8.75$, $p < .01$, $F(1,126) = 12.19$, $p < .001$, $F(1,126) = 11.81$, $p < .01$, but there was no difference at all when the efficacy items were framed impersonally (all $ps > .80$). Thus, the belief that it is possible in the abstract to reduce the threat of nuclear war does not predict antinuclear activism any better than the belief that it is possible to influence the government. However, the belief that one personally can influence the government does not predict antinuclear activism nearly as well as the belief that one personally can reduce the threat of nuclear war.

The Environment. A significant efficacy main effect in the predicted direction was again obtained for the explicit action scale, $F(1,126) = 7.63$, $p < .01$, and the

pooled scale, $F(1,126) = 5.65$, $p < .05$, but not the implicit action scale, $F(1,126) = .70$, $p > .40$. The beliefs main effect was again nonsignificant, $F(1,126) = .00$, $p > .90$, $F(1,126) = 1.18$, $p > .20$, $F(1,126) = .89$, $p > .30$; however, there was no hint of a Efficacy X Beliefs interaction (all $ps > .70$). An unexpected simple effect did emerge such that environmental efficacy predicted environmental activism better than did political efficacy when the efficacy beliefs were framed impersonally. This effect was significant for the implicit action scale, $F(1,126) = 5.79$, $p < .05$, and the pooled scale, $F(1,126) = 4.40$, $p < .05$, but not the explicit action scale, $F(1,126) = .10$, $p > .70$.

The University of Massachusetts Financial Situation.

Neither the efficacy or beliefs main effects, nor the Efficacy X Beliefs interaction were significant (all $ps > .10$). The absence of a significant efficacy main effect makes sense in light of the fact that the U Mass financial situation is an inherently political issue. Unlike the state of the environment, and to some extent the threat of nuclear war, one can only hope to improve the financial situation of a large state university by influencing the political system in some respect. Interestingly, and counter to predictions, the efficacy-activism relation tended to be stronger for political efficacy rather than U Mass efficacy (see Table 7). No efficacy or belief simple

effects approached significance with the exception of an unexpected marginally significant $F(1,126) = 3.66, p < .07$, efficacy simple effect such that the efficacy-activism relation, as measured by the implicit action scale, was stronger for political efficacy than for U Mass efficacy when the items were framed as personal beliefs. No other simple effects were significant or marginally significant (all $ps > .10$).

Political Activism. Since no questionnaires contained both issue-specific efficacy and general political activism items, only the beliefs main effect could be examined. Since issue-specific activism was irrelevant in this analysis, political behavior scores were pooled across the three issue conditions. The beliefs main effect was significant for the explicit action scale, $F(1,193) = 7.02, p < .01$, and the pooled scale, $F(1,193) = 6.35, p < .05$, but not the implicit action scale $F(1,193) = 2.46, p > .10$. Examination of the efficacy-activism correlations revealed that impersonal beliefs were more highly correlated with political activism than personal beliefs (see Table 7). Interestingly, the belief that it is possible to influence the government and the political system was a stronger predictor of political activism than the belief that one personally can do so.

Table 7

Pearson Correlations: Efficacy and Activism

Variable	Nuke	Envir	U Mass	Mean I-S	Pol
PPE	.22	.11	.50**	.24*	.14
IA	.24	.11	.27	.17*	.19
EA	.19	.08	.54***	.23*	.09
IPE	.26	-.11	.57***	.28**	.43***
IA	.18	.10	.45**	.27**	.29**
EA	.27	-.15	.53***	.26*	.43***
PIE	.65***	.47**	.44*	.53***	-
IA	.56***	.30	.32	.40***	-
EA	.64***	.48**	.46**	.54***	-
IIE	.39*	.37*	.16	.32**	-
IA	.24	.21	-.01	.15	-
EA	.38*	.40*	.21	.33***	-

Note: Nuke = Antinuclear activism Envir = Environmental activism U Mass = U Mass activism Mean I-S = Average Issue-specific activism Pol = Political activism. PPE = Personal Political Efficacy IPE = Impersonal Political Efficacy PIE = Personal Issue-specific Efficacy IIE = Impersonal Issue-specific Efficacy IA = Implicit Action Efficacy (5 item scale) EA = Explicit Action Efficacy (16 item scale). Correlations in the PPE, IPE, PIE, and IIE rows were computed by pooling responses to the implicit action and explicit action efficacy items. For each issue, $n = 34$ for the PPE condition, $n = 32$ for the three remaining conditions. Across issues, $n = 102$ for the PPE condition, $n = 96$ for the three remaining conditions. For political behavior, $n = 101$ for the PPE condition, $n = 96$ for the IPE condition.

* $p \leq .05$ ** $p \leq .01$ *** $p \leq .001$ two-tailed.

Factor Analyses

Exploratory principle components analyses were performed on all 16-item explicit action efficacy scales and on the activism scales. In all cases one main factor emerged that typically accounted for approximately 30% to 50% of the variance. Although other factors had eigenvalues greater than one, they typically accounted for only 7% to 10% of the variance, and an examination of the items revealed no clear interpretations of these factors. These results are not surprising given the high reliabilities of the scales. Since only one factor accounted for a meaningful portion of the variance, no additional analyses were performed.

Other Variables

Data were collected for the following discrete variables: subjects' political party identification (Democrat, $n = 120$, Republican, $n = 60$, or Independent, $n = 101$), voting behavior in the last presidential election (voted, $n = 214$, or did not vote, $n = 174$), and voter registration status (registered, $n = 319$, or not registered, $n = 70$). Separate 2-way ANOVAS--Political Party X Issue Condition, Voting Behavior X Issue Condition, and Registration Status X Issue Condition, as well as Gender X Issue Condition--were conducted to determine if these factors influenced levels of issue-specific and political activism. None of the 2-way interactions were

significant or marginally significant (all p s > .10). Since issue condition main effects were discussed previously (see the "Reliabilities and Mean Scores" and "Condition Effects" sections above), only the political party identification, voting behavior, registration status, and gender main effects are addressed here.

Neither levels of issue-specific nor political activism varied significantly by political party identification. However, when only Democrats and Republicans were compared, marginally greater $F(1,178) = 3.72$, $p < .06$, issue-specific activism was found for Democrats ($M = 1.63$) versus Republicans ($M = 1.47$). This difference was not found for any one of the issues examined separately (all p s > .10), due, most likely, to the decreased sample size. Political activism did not vary significantly by political party identification (all p s > .10).

Having voted in the last presidential election was significantly related to average levels of self-reported issue-specific activism, $F(1,382) = 9.40$, $p < .01$, and political activism, $F(1,191) = 14.79$, $p < .001$, with voters reporting greater activism than nonvoters (M s = 1.63 and 1.44 for issue-specific activism, M s = 1.95 and 1.65 for political activism). Since one of the activism items was voting for a candidate, the analyses were recomputed with this item dropped. While mean differences between voters

and nonvoters were slightly reduced ($\bar{M}s = 1.63$ and 1.44 for issue-specific activism, $\bar{M}s = 1.95$ and 1.65 for political activism), the results were still significant, $F(1,382) = 6.96$, $p < .01$, $F(1,191) = 11.18$, $p < .001$, for issue-specific and political activism respectively. Individual issue analyses yielded a significant difference in the same direction for nuclear war when the voting behavior item was retained, $F(1,128) = 4.43$, $p < .05$, and a marginally significant difference when the item was dropped, $F(1,128) = 3.87$, $p < .06$. The only other issue for which voting approached significance was U Mass $F(1,128) = 3.31$, $p < .08$. When the voting behavior item was dropped, however, the effect was no longer marginally significant ($p > .15$).

Significantly greater issue-specific activism ($\bar{M}s = 1.85$, 1.63), $F(1, 383) = 4.33$, $p < .05$, and political activism, ($\bar{M}s = 1.57$, 1.44), $F(1,191) = 4.44$, $p < .05$, was found for those registered versus not registered to vote. The effect was only marginally significant, $F(1,383) = 3.06$, $p < .09$, for issue-specific activism and nonsignificant, $F(1,191) = 2.63$, $p > .10$, for political activism when the voting item was dropped from the analyses. Separate issue analyses revealed a significant difference only for U Mass activism. Registered voters reported significantly higher levels of activism when the voting behavior item was retained ($\bar{M}s = 1.73$ and 1.40), $F(1,128) = 7.01$, $p < .01$, and when it was dropped ($\bar{M}s =$

1.70 and 1.41), $F(1,128) = 5.80$, $p < .05$ from the analysis. Voter registration status was not significantly related to the environment ($ps > .10$) or nuclear war ($ps > .80$). These results complement the finding that political efficacy and U Mass efficacy predict U Mass activism about equally. Since the financial situation at U Mass is an inherently political issue, one would expect activism to be associated with behaviors intended to influence the political system itself, such as registering to vote. While voting in the last presidential election was not significantly related to U Mass activism, the financial situation at U Mass is largely perceived as resulting from the state's financial crisis; vote casting at the national level may be viewed as ineffective. When one registers to vote, however, one is then able to take part in state, local, and national elections, some of which bear directly on the U Mass financial situation.

Gender did not significantly relate to either issue-specific $F(1,386) = 2.49$, $p > .10$, or political activism $F(1,194) = .09$, $p > .70$. When each issue was analyzed separately, gender was found to be significantly related only to U Mass activism, with females reporting significantly higher, $F(1,128) = 4.02$, $p < .05$ levels of activism than males ($M_s = 1.74$ and 1.54 respectively).

Pearson correlations were computed between activism and three continuous variables: age, issue importance, and

liberalism. (see Table 8.) All three variables were positively correlated with both average issue-specific efficacy and political efficacy. Age was significantly correlated with antinuclear ($r = .57$) and environmental activism ($r = .29$), but not U Mass activism ($r = .12$). The notably high correlation between age and antinuclear activism most likely reflects the decreased salience of the issue among younger students. The lack of a significant relation between age and U Mass activism supports this interpretation since the issue is, at present, especially salient. Issue importance was positively correlated with activism for all three issues ($r_s = .33, .21, \text{ and } .38$ for nuclear war, the environment, and U Mass respectively). Liberalism was positively correlated with antinuclear ($r = .42$) and U Mass activism ($r = .36$), but was unrelated to environmental activism ($r = -.02$).

Table 8

Pearson Correlations: Age, Liberalism, Issue Importance
with Activism

<u>Variable</u>	Nuke	Envir	U Mass	Mean I-S	Pol.
Age	.57***	.29***	.12	.25***	.23***
Importance	.33***	.21*	.38***	.34***	.14*
Liberalism	.42***	-.02	.36***	.36***	.17*

Note: Importance = response to "How important is it to you that the threat of nuclear war be reduced/the quality of the environment be improved/the financial situation at U Mass be improved?" (1 = very important 5 = not at all important) Liberalism = response to "How would you characterize you own political views?" (1 = very liberal 5 = very conservative) Both items were reversed scored. For each issue, sample sizes ranged from 127 to 130 (due to occasional missing values). Across issues, n = 389 for age, n = 387 for issue importance, n = 384 for liberalism. For political activism, n = 197 for age and issue importance, n = 194 for liberalism.

* $p \leq .05$ ** $p \leq .01$ *** $p \leq .001$ two-tailed.

CHAPTER 5

GENERAL DISCUSSION

The results of this study have both theoretical and applied value. Theoretically, they provide support for the predictions of the compatibility principle, that stronger correlations between two indicators of a disposition will result when these indicators are assessed at a corresponding level. We predicted that a stronger efficacy-activism relation would result when the efficacy statements referred specifically to the issue under consideration rather than to the government in general, and when they were framed personally rather than impersonally. Generally, the results support both predictions. Across issues, both hypothesized main effects were significant: Issue-specific efficacy predicted socio-political activism better than did political activism, and personal beliefs predicted socio-political activism better than impersonal beliefs.

When the issues were examined individually, thereby utilizing only one-third of the sample in each analysis ($n = 130$), the efficacy main effect was significant for both antinuclear war and the environmental activism. The effect was not significant for activism designed to improve the U Mass financial situation as the types of behaviors that could potentially have an impact are political in nature. The beliefs main effect, however, was nonsignificant for

each of the three issues. Although the trends were in the expected direction for nuclear war and the environment, the belief that one personally can have an influence did not predict activism significantly better than the belief that it is possible in the abstract to have an influence.

Apparently then, the personal vs. impersonal beliefs distinction is more tenuous than the distinction between issue-specific and political efficacy; however, the overall difference for the main effects will be qualified below.

Both the efficacy type and belief type variables were more powerful moderators of the efficacy-activism relation when efficacy was measured by the 16-item explicit action scale that assessed the perceived effectiveness of performing the specific types of behaviors composing the activism measure, than when efficacy was measured by the 5-item implicit action scale that assessed the perceived effectiveness of performing activist behaviors in general. Across issues, both the efficacy and belief main effects were significant for the explicit action scale, the pooled implicit and explicit action scale, but not the implicit action scale alone. A similar pattern resulted for the efficacy main effect for nuclear war and the environment. It appears, then, that the implicit action measure--the type of efficacy measure used in the majority of investigations of the efficacy-activism relation--is not as sensitive to the issue-specific versus political efficacy,

and personal versus impersonal beliefs distinctions, as is the explicit action measure.

Interestingly, however, the Efficacy X Beliefs interaction was significant for the implicit action scale, but only approached significance for explicit action and pooled scales in the across issues analysis, and was significant for all three scales when nuclear war was examined. The interaction, however, was nonsignificant for improving the quality of the environment and improving the U Mass financial situation. Simple effects analyses on the across issues and nuclear war Efficacy X Beliefs interactions (see "Hypotheses Tests" section), revealed that issue-specific efficacy predicted issue-specific activism better than political efficacy only when the beliefs were framed personally. The efficacy simple effect was significant or marginally significant for all three efficacy scales when beliefs were measured at the personal level, and nonsignificant for all three efficacy scales when beliefs were measured at the impersonal level. Similarly, personal beliefs predicted issue-specific activism significantly better than did impersonal beliefs only when efficacy was measured at the issue-specific level; the effect was nonsignificant for all three efficacy scales when efficacy was measured at the more general, political level.

Thus, the fact that the efficacy and belief main effects were significant for the explicit action but not the implicit action scale results because political efficacy and impersonal beliefs are such weak predictors of socio-political activism; the beliefs type manipulation had little effect on political efficacy, and the efficacy type manipulation had little effect on impersonal beliefs thus diluting both the efficacy and belief main effects. Across issues and for nuclear war, at least, the more compatible measures were clearly the better predictors of socio-political activism. At present, the majority of studies that have generated support for the compatibility principle have investigated the link between attitudes and behavior (see Ajzen, 1988, Ch. 5, for a review). This study then, extends the predictions of the compatibility principle to the domain of perceived efficacy (see also Ajzen & Timko, 1986), therefore attesting to the generality of the compatibility principle.

Since there is very little literature on the distinction between personal and impersonal beliefs, these results are of particular interest. The compatibility principle would predict that personal beliefs should be more highly correlated with activist behavior than impersonal beliefs because the subjects are asked to indicate how often they themselves have performed each of the activist behaviors. Indeed, Ajzen (1988) argues that

in order to obtain a strong attitude-behavior relation, attitudes must be assessed at the personal level. Bandura (1977, 1982) has reported high correlations between personal efficacy beliefs regarding performing a behavior and actual behavioral performance in a number of behavioral domains.

In the across issues and general political activism analyses, efficacy statements framed as personal beliefs correlated more highly with activism than did impersonal beliefs when efficacy was measured by the explicit action and pooled scales. Thus, the belief that one can personally have an influence in the socio-political realm predicts socio-political activism better than the belief that it is possible in the abstract to have an influence. Admittedly, relatively large sample sizes were required for this effect to reach significance ($n = 198$ for political activism, $n = 390$ for issue-specific activism). However, with the exception of the Fishbein (1979) study, this is the first empirical demonstration that personal beliefs predict behavior better than impersonal beliefs. Since Fishbein measured beliefs about cigarette smoking and was concerned with the attitude-behavior relation, this study not only lends support to Fishbein's distinction, but also extends it to the realm of socio-political activism.

In addition to supporting and extending the predictions of the compatibility principle, the results of

this study have a variety of implications for research investigating the efficacy-activism relation. In the nuclear war literature for example, two studies that measured both political efficacy and nuclear efficacy (Fox & Schofield, 1989; Tyler & McGraw, 1983) found a stronger relationship between nuclear efficacy and nuclear activism than between political efficacy and political activism. Neither study, however, directly compared the strength of these relations. By utilizing the regression model, it was possible in the present study to directly test for a significant difference between these relations. While the efficacy main effect was not significant when efficacy was measured by the implicit action scales--the scales comparable to those used in the above studies, the trends were in the predicted direction. Moreover, the Efficacy X Beliefs Interaction was significant as nuclear efficacy predicted nuclear activism better than political efficacy when the efficacy items were framed personally ($p < .01$) but not impersonally ($p > .80$). Therefore, this study demonstrates that when efficacy is measured at the personal level, nuclear efficacy is indeed a better predictor of nuclear activism than is political efficacy.

Thus, these results support the conclusion that researchers and others who are interested in predicting activism for a particular issue from perceptions of efficacy should focus on peoples' perceptions of their own

ability to have an influence on that particular issue. While some activism researchers do seem to recognize importance of assessing efficacy beliefs at the issue-specific level, the importance of assessing efficacy beliefs at the personal level may not be recognized. Hopefully, this study will serve to make researchers in the field aware of the importance of this distinction.

It should be noted, however, that the distinctions between issue-specific efficacy versus political efficacy and personal beliefs versus impersonal beliefs were not equally important for all issues. While the efficacy type main effect was significant for the environment when efficacy was measured by the explicit action and pooled scales, no other main or interaction effects were significant for the environment, and none at all for the U Mass financial situation. The trends were in the predicted direction for both the efficacy and belief main effects for the environment; with a larger sample size both predicted main effects may well have reached significance. For the U Mass financial situation, however, while personal beliefs tended to be more strongly related to U Mass activism than impersonal beliefs, contrary to expectations, political efficacy tended to be more strongly related to U Mass activism than was U Mass efficacy. Apparently, the issue-specific measure was simply redundant and did not improve, and even tended to diminish, the efficacy-activism

relation. Thus, there may be no advantage to be gained by assessing efficacy that is specific to the issue when the issue itself is inherently political.

The factor analyses were performed to examine other possible dimensions of efficacy and activism. As noted in the introduction, McKenzie and Dyal (1988) suggested a distinction between conventional and unconventional forms of activism. It is also possible that activist behaviors taken within existing political channels might fall on a different dimension than those taken outside such channels. While the principle components analyses did not yield factors that could be clearly interpreted along these or any other dimensions, these results do not suggest that either distinction is invalid, because this study was not designed to adequately test the importance of these distinctions. Few of the items used in this study would be classified by McKenzie and Dyal as measuring conventional or "soft core" activism, which they define as activities related to increasing awareness about an issue. And while the within versus outside existing political channels distinction may be intuitively appealing, few efficacy beliefs or activist behaviors are clearly of one type but not the other. One could reasonably argue that all of the activism and explicit action efficacy items used in this study (with the possible exception of wearing a button or shirt that expresses a particular view) describe activist

behaviors designed to influence the existing political network. Thus, additional research that is designed specifically to examine the utility of these and other distinctions is needed.

The positive correlation between liberalism and antinuclear activism confirms the findings of many previous investigations (McKenzie & Dyal, 1988; Oskamp et al., 1985; Tyler & McGraw, 1983; Watanabe & Milburn, 1988; cf. Fiske et al., 1983). Liberalism also correlated positively with activism to improve the financial situation at U Mass, but was unrelated to environmental activism. The latter result is consistent with recent poll data that indicates that the current environmental movement, unlike that of the early seventies, is broad based. Approximately 75% of the U.S. public identify themselves as environmentalists, with little variation across demographic lines (Gallup Poll, 1989; Gallup & Newport, 1990).

However, even though liberalism was uncorrelated with environmental activism, it was significantly correlated with the across issues issue-specific activism ($r = .36$), as well as with scores on the political activism measure ($r = .17$). Although slightly greater activism was found for Democrats versus Republicans when levels of activism were averaged across issues, this marginally significant result was nonsignificant for each issue when examined separately, and for political activism in general. Thus, it appears

that political view (i.e, liberalism, moderate, conservatism) is more strongly related to socio-political activism than is political party identification.

Voting in the last presidential election also correlated positively with average issue-specific activism and political activism, as did being registered to vote, although the relationships were more tenuous. While voting was associated with antinuclear war activism, and registration was associated with U Mass activism, neither variable correlated significantly with any other issue. Since only voting in the previous presidential election was assessed, it is likely that the relationship between voting and activism would have been stronger had a more representative measure of past voting behavior been utilized.

Gender was significantly correlated only with U Mass activism, with females engaging in more activism than males. Age, however, was positively correlated with all measures of activism, except U Mass activism. Most likely, the financial problems at U Mass have not been salient long enough for age to be a factor. Finally, issue importance was positively correlated with all measures of activism without exception. Not surprisingly, those who feel that it is important that something be done about a particular issue engage in more activism than those who feel that it is relatively unimportant that something be done.

Overall then, liberalism, age, prior voting behavior, and issue importance appear to be reliable correlates of socio-political activism. Voter registration status is also associated with socio-political activism, although the relationship appears to be relatively weak. Of the variables examined, gender was the least important, with males and females engaging in roughly equal amounts of socio-political activism.

CONCLUSION

The results of this study support the predictions of the compatibility principle and apply these predictions to the efficacy-activism relation. While this research directly addresses measurement of the efficacy-activism relation, it also has implications for those interested in stimulating socio-political activism. The results of this study suggest that in order to increase activism with regard to a specific issue, unless that issue is itself inherently political in nature, it is important to make people feel that they have some control over that issue in particular rather than over the political system in general. Moreover, the results also imply that it is more effective to induce the belief that one's own actions can impact on the issue than it is to induce the belief that the issue is such that it can be impacted upon in the abstract.

It should be noted, however, that this study investigated pre-existing differences in perceptions of efficacy and levels of socio-political activism. Thus, while these results suggest which types of efficacy are most strongly associated with the performance of activist behaviors, they do not address how to induce perceptions of efficacy. It is the task of future research to explore factors that might increase perceptions of efficacy in the

socio-political realm, and to further explore the efficacy-activism relation.

APPENDIX A

PERSONAL POLITICAL EFFICACY ITEMS

Implicit Action Items

There is little I can do to create political change.

I don't see how I can influence our leaders.

I can influence government policies.

I have no power to influence the political process.

I can change the way things are run in this country.

Explicit Action Items

I can change the decisions of government by meeting with elected representatives.

Writing a letter to a newspaper or magazine can be an effective way for me to influence government policies.

I can change government policies by trying to convince others to adopt a particular political viewpoint.

I can create political change by attending meetings of a political organization or group.

It is not possible for me to change the way things are run in this country by contributing money to a political organization or political candidate.

By preparing or circulating fliers or handouts, I can influence government policies.

I can influence government policies by wearing a shirt or button that expresses a political viewpoint.

I can influence government policies by writing or phoning public officials.

Getting informed about a political issue can be an effective way for me to create political change.

By signing petitions, I can help to change the way things are run in this country.

By working for an activist organization, I can help to influence the decisions of our leaders.

I can influence the decisions of our leaders by trying to convince others to vote for particular candidates and programs.

My attending a political workshop can not help to change government policies.

My voting decisions can do little to influence the political process.

I can affect the political process by working for a political candidate.

My attending a rally or demonstration can do little to change the decisions of our leaders.

APPENDIX B

IMPERSONAL POLITICAL EFFICACY ITEMS

Implicit Action Items

Not much can be done to create political change.

It is difficult to influence our leaders.

It is possible to influence government policies.

There is no way to influence the political process.

It is possible to change the way things are run in this country.

Explicit Action Items

It is possible to change the decisions of government by meeting with elected representatives.

Writing a letter to a newspaper or magazine can be an effective way of influencing government policies.

It is possible to change government policies by trying to convince others to adopt a particular political viewpoint.

It is possible to create political change by attending meetings of a political organization or group.

It is not possible to change the way things are run in this country by contributing money to a political organization or political candidate.

Preparing or circulating fliers or handouts can influence government policies.

It is possible to influence government policies by wearing a shirt or button that expresses a political viewpoint.

It is possible to influence government policies by writing or phoning public officials.

Getting informed about a political issue can be an effective way of creating political change.

Signing petitions can help to change the way things are run in this country.

Working for an activist organization can help to influence the decisions of our leaders.

It is possible to influence the decisions of our leaders by trying to convince others to vote for particular candidates and programs.

Attending a political workshop can not help to change government policies.

Voting can do little to influence the political process.

It is possible to affect the political process by working for a political candidate.

Attending a rally or demonstration can do little to change the decisions of our leaders.

APPENDIX C

PERSONAL NUCLEAR EFFICACY ITEMS

Implicit Action Items

There is little I can do to create political change that would reduce the threat of nuclear war.

I don't see how I could get our leaders to work harder to reduce the threat of nuclear war.

I can get the government to work toward reducing the threat of nuclear war.

I have no power to influence the political process in such a way that would reduce the threat of nuclear war.

I can change the way things are run in this country in such a way that would help to reduce the threat of nuclear war.

Explicit Action Items

I can reduce the threat of nuclear war by meeting with elected representatives.

Writing a letter to a newspaper or magazine can be an effective way for me to reduce the threat of nuclear war.

I can reduce the threat of nuclear war by trying to convince others to adopt an "anti-nuclear weapons" viewpoint.

I can reduce the threat of nuclear war by attending meetings of a political organization or group.

It is not possible for me to reduce the threat of nuclear war by contributing money to a political organization or political candidate.

By preparing or circulating fliers or handouts, I can reduce the threat of nuclear war.

I can reduce the threat of nuclear war by wearing a shirt or button that expresses an "anti-nuclear weapons" viewpoint.

I can reduce the threat of nuclear war by writing or phoning public officials.

Getting informed about nuclear war issues can be an effective way for me to reduce the threat of nuclear war.

By signing petitions, I can help to reduce the threat of nuclear war.

By working for an activist organization, I can help to reduce the threat of nuclear war.

I can reduce the threat of nuclear war by trying to convince others to vote for "anti-nuclear weapons" candidates or programs.

My attending a political workshop on nuclear war can not help to reduce the threat of nuclear war.

My voting decisions can do little to reduce the threat of nuclear war.

I can reduce the threat of nuclear war by working for a political candidate who holds "anti-nuclear weapons" views.

My attending a rally or demonstration can do little to reduce the threat of nuclear war.

APPENDIX D

IMPERSONAL NUCLEAR EFFICACY ITEMS

Implicit Action Items

Not much can be done to create political change that would reduce the threat of nuclear war.

It is difficult to get our leaders to work harder to reduce the threat of nuclear war.

It is possible to get the government to work toward reducing the threat of nuclear war.

There is no way to influence the political process in such a way that would reduce the threat of nuclear war.

It is possible to change the way things are run in this country in such a way that would help to reduce the threat of nuclear war.

Explicit Action Items

It is possible to reduce the threat of nuclear war by meeting with elected representatives.

Writing a letter to a newspaper or magazine can be an effective way of reducing the threat of nuclear war.

It is possible to reduce the threat of nuclear war by trying to convince others to adopt an "anti-nuclear weapons" viewpoint.

It is possible to reduce the threat of nuclear war by attending meetings of a political organization or group.

It is not possible to reduce the threat of nuclear war by contributing money to a political organization or political candidate.

Preparing or circulating fliers or handouts can reduce the threat of nuclear war.

It is possible to reduce the threat of nuclear war by wearing a shirt or button that expresses an "anti-nuclear weapons" viewpoint.

It is possible to reduce the threat of nuclear war by writing or phoning public officials.

Getting informed about nuclear war issues can be an effective way of reducing the threat of nuclear war.

Signing petitions can help to reduce the threat of nuclear war.

Working for an activist organization can help to reduce the threat of nuclear war.

It is possible to reduce the threat of nuclear war by trying to convince others to vote for "anti-nuclear weapons" candidates or programs.

Attending a political workshop on nuclear war can not help to reduce the threat of nuclear war.

Voting can do little to reduce the threat of nuclear war.

It is possible to reduce the threat of nuclear war by working for a political candidate who holds "anti-nuclear weapons" views.

Attending a rally or demonstration can do little to reduce the threat of nuclear war.

APPENDIX E

PERSONAL ENVIRONMENTAL EFFICACY ITEMS

Implicit Action Items

There is little I can do to create political change that would improve the quality of the environment.

I don't see how I could get our leaders to work harder to improve the quality of the environment.

I can get the government to work toward improving the quality of the environment.

I have no power to influence the political process in such a way that would improve the quality of the environment.

I can change the way things are run in this country in such a way that would help to improve the quality of the environment.

Explicit Action Items

I can improve the quality of the environment by meeting with elected representatives.

Writing a letter to a newspaper or magazine can be an effective way for me to improve the quality of the environment.

I can improve the quality of the environment by trying to convince others to adopt a "pro-environmental" viewpoint.

I can improve the quality of the environment by attending meetings of a political organization or group.

It is not possible for me to improve the quality of the environment by contributing money to a political organization or political candidate.

By preparing or circulating fliers or handouts, I can improve the quality of the environment.

I can improve the quality of the environment by wearing a shirt or button that expresses a "pro-environmental" viewpoint.

I can improve the quality of the environment by writing or phoning public officials.

Getting informed about environmental issues can be an effective way for me to improve the quality of the environment.

By signing petitions, I can help to improve the quality of the environment.

By working for an activist organization, I can help to improve the quality of the environment.

I can improve the quality of the environment by trying to convince others to vote for "pro-environmental" candidates or programs.

My attending a political workshop on the environment can not help to improve the quality of the environment.

My voting decisions can do little to improve the quality of the environment.

I can improve the quality of the environment by working for a political candidate who holds "pro-environmental" views.

My attending a rally or demonstration can do little to improve the quality of the environment.

I can improve the quality of the environment by picking up litter.

My boycotting environmentally irresponsible products can not help to improve the quality of the environment.

Participating in a recycling program can be an effective way for me to improve the quality of the environment.

APPENDIX F

IMPERSONAL ENVIRONMENTAL EFFICACY ITEMS

Implicit Action Items

Not much can be done to create political change that would improve the quality of the environment.

It is difficult to get our leaders to work harder to improve the quality of the environment.

It is possible to get the government to work toward improving the quality of the environment.

There is no way to influence the political process in such a way that would improve the quality of the environment.

It is possible to change the way things are run in this country in such a way that would help to improve the quality of the environment.

Explicit Action Items

It is possible to improve the quality of the environment by meeting with elected representatives.

Writing a letter to a newspaper or magazine can be an effective way of improving the quality of the environment.

It is possible to improve the quality of the environment by trying to convince others to adopt a "pro-environmental" viewpoint.

It is possible to improve the quality of the environment by attending meetings of a political organization or group.

It is not possible to improve the quality of the environment by contributing money to a political organization or political candidate.

Preparing or circulating fliers or handouts can improve the quality of the environment.

It is possible to improve the quality of the environment by wearing a shirt or button that expresses a "pro-environmental" viewpoint.

It is possible to improve the quality of the environment by writing or phoning public officials.

Getting informed about environmental issues can be an effective way of improving the quality of the environment.

Signing petitions can help to improve the quality of the environment.

Working for an activist organization can help to improve the quality of the environment.

It is possible to improve the quality of the environment by trying to convince others to vote for "pro-environmental" candidates or programs.

Attending a political workshop on the environment can not help to improve the quality of the environment.

Voting can do little to improve the quality of the environment.

It is possible to improve the quality of the environment by working for a political candidate who holds "pro-environmental" views.

Attending a rally or demonstration can do little to improve the quality of the environment.

It is possible to improve the quality of the environment by picking up litter.

Boycotting environmentally irresponsible products can not help to improve the quality of the environment.

Participating in a recycling program can be an effective way of improving the quality of the environment.

APPENDIX G

PERSONAL U MASS FINANCIAL SITUATION EFFICACY ITEMS

Implicit Action Items

There is little I can do to create political change that would improve the financial situation at U Mass.

I don't see how I could get our leaders to work harder to improve the financial situation at U Mass.

I can get the government to work toward improving the financial situation at U Mass.

I have no power to influence the political process in such a way that would improve the financial situation at U Mass.

I can change the way things are run in this state in such a way that would help to improve the financial situation at U Mass.

Explicit Action Items

I can improve the financial situation at U Mass by meeting with elected representatives.

Writing a letter to a newspaper or magazine can be an effective way for me to improve the financial situation at U Mass.

I can improve the financial situation at U Mass by trying to convince others to adopt a "pro-educational funding" viewpoint.

I can improve the financial situation at U Mass by attending meetings of a political organization or group.

It is not possible for me to improve the financial situation at U Mass by contributing money to a political organization or political candidate.

By preparing or circulating fliers or handouts, I can improve the financial situation at U Mass.

I can improve the financial situation at U Mass by wearing a shirt or button that expresses a "pro-educational funding" viewpoint.

I can improve the financial situation at U Mass by writing or phoning public officials.

Getting informed about educational funding issues can be an effective way for me to improve the financial situation at U Mass.

By signing petitions, I can help to improve the financial situation at U Mass.

By working for an activist organization, I can help to improve the financial situation at U Mass.

I can improve the financial situation at U Mass by trying to convince others to vote for "pro-educational funding" candidates or programs.

My attending a political workshop on the financial situation at U Mass can not help to improve the financial situation at U Mass.

My voting decisions can do little to improve the financial situation at U Mass.

I can improve the financial situation at U Mass by working for a political candidate who holds "pro-educational funding" views.

My attending a rally or demonstration can do little to improve the financial situation at U Mass.

APPENDIX H

IMPERSONAL U MASS FINANCIAL SITUATION EFFICACY ITEMS

Implicit Action Items

Not much can be done to create political change that would improve the financial situation at U Mass.

It is difficult to get our leaders to work harder to improve the financial situation at U Mass.

It is possible to get the government to work toward improving the financial situation at U Mass.

There is no way to influence the political process in such a way that would improve the financial situation at U Mass.

It is possible to change the way things are run in this state in such a way that would help to improve the financial situation at U Mass.

Explicit Action Items

It is possible to improve the financial situation at U Mass by meeting with elected representatives.

Writing a letter to a newspaper or magazine can be an effective way of improving the financial situation at U Mass.

It is possible to improve the financial situation at U Mass by trying to convince others to adopt a "pro-educational funding" viewpoint.

It is possible to improve the financial situation at U Mass by attending meetings of a political organization or group.

It is not possible to improve the financial situation at U Mass by contributing money to a political organization or political candidate.

Preparing or circulating fliers or handouts can improve the financial situation at U Mass.

It is possible to improve the financial situation at U Mass by wearing a shirt or button that expresses a "pro-educational funding" viewpoint.

It is possible to improve the financial situation at U Mass by writing or phoning public officials.

Getting informed about educational funding issues can be an effective way of improving the financial situation at U Mass.

Signing petitions can help to improve the financial situation at U Mass.

Working for an activist organization can help to improve the financial situation at U Mass.

It is possible to improve the financial situation at U Mass by trying to convince others to vote for "pro-educational funding" candidates or programs.

Attending a political workshop on the financial situation at U Mass can not help to improve the financial situation at U Mass.

Voting can do little to improve the financial situation at U Mass.

It is possible to improve the financial situation at U Mass by working for a political candidate who holds "pro-educational funding" views.

Attending a rally or demonstration can do little to improve the financial situation at U Mass.

APPENDIX I

POLITICAL ACTIVISM ITEMS

Prepared or circulated fliers or handouts

Wrote or phoned public officials

Worked for an activist organization

Tried to convince others to vote for particular candidates or programs

Got informed about a political issue

Voted for a candidate primarily because he or she holds certain political views

Worked for a political candidate

Wore a shirt or button that expresses a certain political viewpoint

Met with elected representatives

Attended a rally or demonstration

Attended a workshop on a political issue

Signed a petition

Tried to convince others to adopt a certain political viewpoint

Wrote a letter to a newspaper or magazine

Contributed money to a political organization or political candidate

Attended meetings of a political organization or group

APPENDIX J

ANTI-NUCLEAR WAR ACTIVISM ITEMS

Tried to reduce the threat of nuclear war by preparing or circulating fliers or handouts

Tried to reduce the threat of nuclear war by writing or phoning public officials

Tried to reduce the threat of nuclear war by working for an activist organization

Tried to reduce the threat of nuclear war by attempting to convince others to vote for "anti-nuclear weapons" candidates or programs

Tried to reduce the threat of nuclear war by getting informed about the issue

Tried to reduce the threat of nuclear war by voting for a candidate primarily because he or she holds "anti-nuclear weapons" views

Tried to reduce the threat of nuclear war by working for a political candidate who holds "anti-nuclear weapons" views

Tried to reduce the threat of nuclear war by wearing a shirt or button that expresses an "anti-nuclear weapons" viewpoint

Tried to reduce the threat of nuclear war by meeting with elected representatives

Tried to reduce the threat of nuclear war by attending a rally or demonstration

Tried to reduce the threat of nuclear war by attending a workshop on nuclear war

Tried to reduce the threat of nuclear war by signing a petition

Tried to reduce the threat of nuclear war by attempting to convince others to adopt an "anti-nuclear weapons" viewpoint

Tried to reduce the threat of nuclear war by writing a letter to a newspaper or magazine

Tried to reduce the threat of nuclear war by contributing money to a political organization or political candidate

Tried to reduce the threat of nuclear war by attending meetings of a political organization or group

APPENDIX K

PRO-ENVIRONMENTAL ACTIVISM ITEMS

Tried to improve the quality of the environment by preparing or circulating fliers or handouts

Tried to improve the quality of the environment by writing or phoning public officials

Tried to improve the quality of the environment by working for an activist organization

Tried to improve the quality of the environment by attempting to convince others to vote for "pro-environmental" candidates or programs

Tried to improve the quality of the environment by getting informed about the issue

Tried to improve the quality of the environment by voting for a candidate primarily because he or she holds "pro-environmental views"

Tried to improve the quality of the environment by working for a political candidate who holds "pro-environmental" views

Tried to improve the quality of the environment by wearing a shirt or button that expresses a "pro-environmental" viewpoint

Tried to improve the quality of the environment by meeting with elected representatives

Tried to improve the quality of the environment by attending a rally or demonstration

Tried to improve the quality of the environment by attending a workshop on the environment

Tried to improve the quality of the environment by signing a petition

Tried to improve the quality of the environment by attempting to convince others to adopt a "pro-environmental" viewpoint

Tried to improve the quality of the environment by writing a letter to a newspaper or magazine

Tried to improve the quality of the environment by contributing money to a political organization or political candidate

Tried to improve the quality of the environment by attending meetings of a political organization or group

Tried to improve the quality of the environment by picking up litter

Tried to improve the quality of the environment by boycotting environmentally irresponsible products

Tried to improve the quality of the environment by participating in a recycling program

APPENDIX L

IMPROVING U MASS FINANCIAL SITUATION ACTIVISM ITEMS

Tried to improve the financial situation at U Mass by preparing or circulating fliers or handouts

Tried to improve the financial situation at U Mass by writing or phoning public officials

Tried to improve the financial situation at U Mass by working for an activist organization

Tried to improve the financial situation at U Mass by attempting to convince others to vote for "pro-educational funding" candidates or programs

Tried to improve the financial situation at U Mass by getting informed about the issue

Tried to improve the financial situation at U Mass by voting for a candidate primarily because he or she holds "pro-educational funding" views

Tried to improve the financial situation at U Mass by working for a political candidate who holds "pro-educational funding" views

Tried to improve the financial situation at U Mass by wearing a shirt or button that expresses a "pro-educational funding" viewpoint

Tried to improve the financial situation at U Mass by meeting with elected representatives

Tried to improve the financial situation at U Mass by attending a rally or demonstration

Tried to help improve the financial situation at U Mass by attending a workshop on the financial situation at U Mass

Tried to improve the financial situation at U Mass by signing a petition

Tried to improve the financial situation at U Mass by attempting to convince others to adopt a "pro-educational funding" viewpoint

Tried to improve the financial situation at U Mass by writing a letter to a newspaper or magazine

Tried to improve the financial situation at U Mass by contributing money to a political organization or political candidate

Tried to improve the financial situation at U Mass by attending meetings of a political organization or group

APPENDIX M

QUESTIONNAIRES

Questionnaires Containing Political Efficacy Items

<u>Belief Type</u>	<u>Activism</u>	<u>Activism</u>
1. Personal	Political	Anti-nuclear war
2. Personal	Political	Pro-environmental
3. Personal	Political	Improve U Mass
4. Impersonal	Political	Anti-nuclear war
5. Impersonal	Political	Pro-environmental
6. Impersonal	Political	Improve U Mass

Questionnaires Containing Issue-Specific Efficacy Items

<u>Belief Type and Issue</u>	<u>Activism</u>
1. Personal Nuclear War	Anti-nuclear war
2. Personal Environment	Pro-environmental
3. Personal U Mass	Improve U Mass
4. Impersonal Nuclear War	Anti-nuclear war
5. Impersonal Environment	Pro-environmental
6. Impersonal U Mass	Improve U Mass

Twelve additional questionnaires were constructed in which the activism items are presented before the efficacy items, yielding a total of 24 questionnaires. For the questionnaires containing political efficacy items, the political activism items always appear before the issue-specific activism items.

APPENDIX N

IMPLICIT ACTION PERSONAL BELIEFS ITEMS

Political Efficacy Items

It is possible for me to influence the government.

I have no power to influence the decisions of our leaders.

It is not possible for me to create significant political change.

It is possible for me to influence political decisions.

I can have an impact on the political system.

Nuclear Efficacy Items

It is possible for me to influence the government in such a way that would reduce the threat of nuclear war.

I have no power to influence our leaders to make decisions that would reduce the threat of nuclear war.

It is not possible for me to create significant political change that would reduce the threat of nuclear war.

It is possible for me to influence political decisions in such a way that would reduce the threat of nuclear war.

I can have an impact on the political system that would help to reduce the threat of nuclear war.

Environmental Efficacy Items

It is possible for me to influence the government in such a way that would improve the quality of the environment.

I have no power to influence our leaders to make decisions that would improve the quality of the environment.

It is not possible for me to create significant political change that would improve the quality of the environment.

It is possible for me to influence political decisions in such a way that would improve the quality of the environment.

I can have an impact on the political system that would help to improve the quality of the environment.

U Mass Efficacy Items

It is possible for me to influence the government in such a way that would improve the financial situation at U Mass.

I have no power to influence our leaders to make decisions that would improve the financial situation at U Mass.

It is not possible for me to create significant political change that would improve the financial situation at U Mass.

It is possible for me to influence political decisions in such a way that would improve the financial situation at U Mass.

I can have an impact on the political system that would help to improve the improve the financial situation at U Mass.

APPENDIX O

IMPLICIT ACTION IMPERSONAL BELIEFS ITEMS

Political Efficacy Items

It is possible to influence the government.

It is possible to influence the decisions of our leaders.

It is not possible to create significant political change.

It is possible to influence political decisions.

It possible to have an impact on the political system.

Nuclear Efficacy Items

It is possible to influence the government in such a way that would reduce the threat of nuclear war.

It is possible to influence our leaders to make decisions that would reduce the threat of nuclear war.

It is not possible to create significant political change that would reduce the threat of nuclear war.

It is possible to influence political decisions in such a way that would reduce the threat of nuclear war.

It is possible to have an impact on the political system that would help to reduce the threat of nuclear war.

Environmental Efficacy Items

It is possible to influence the government in such a way that would improve the quality of the environment.

It is possible to influence our leaders to make decisions that would improve the quality of the environment.

It is not possible to create significant political change that would improve the quality of the environment.

It is possible to influence political decisions in such a way that would improve the quality of the environment.

It is possible to have an impact on the political system that would help to improve the quality of the environment.

U Mass Efficacy Items

It is possible to influence the government in such a way that would improve the financial situation at U Mass.

It is possible to influence our leaders to make decisions that would improve the financial situation at U Mass.

It is not possible to create significant political change that would improve the financial situation at U Mass.

It is possible to influence political decisions in such a way that would improve the financial situation at U Mass.

It is possible to have an impact on the political system that would help to improve the improve the financial situation at U Mass.

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