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Anti-nuclear weapons professional activities: A survey of American Psychological Association members

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ANTI-NUCLEAR WEAPONS PROFESSIONAL ACTIVITIES:

A SURVEY OF AMERICAN PSYCHOLOGICAL ASSOCIATION MEMBERS

A Dissertation

by

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A SURVEY OF AMERICAN PSYCHOLOGICAL ASSOCIATION MEMBERS

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ABSTRACT

Anti-Nuclear Weapons Professional Activities: A Survey of American Psychological Association Members. (December 1989)

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The major purpose of this study was to examine the extent to which American Psychological Association (APA) members supported advocacy efforts by psychologists on an important societal issue, nuclear war. The major questions of this study concerned: (a) the importance of psychologists speaking out on the issue of nuclear war, (b) the level of APA members' nuclear war related activities compared to other groups, (c) whether areas of consensus existed regarding anti-nuclear weapons professional activities, and (d) factors relating to differences among APA members where consensus was not found.

A 57-item questionnaire was mailed to 400 APA members sampling their: personal activities and attitudes regarding nuclear war, stands on professional issues related to nuclear war advocacy, opinions on the importance of psychologists publicly speaking out on several societal issues, opinions regarding the acceptability of anti-nuclear weapons professional activities, and demographics. There were 262 usable survey responses, yielding a response rate of 67.01%.

Biographical characteristics of respondents were presented. Descriptive findings regarding respondents' personal activities and attitudes were discussed, along with respondents' level of support for professional activities. APA members ranked nuclear war fourth out of five in importance for psychologists to publicly speak out on. APA members were generally supportive of some professional activities, but were divided on most other activities. Pearson product-moment correlations investigated relationships between previously mentioned variables and support for professional activities. Many significant correlations were found at the .05 level and higher. Personal activities, several attitudes, and gender correlated with professional activities; however, the highest correlations were consistently found for professional issues. Analysis of Variance found a significant effect for political affiliation.

Multiple correlations indicated that professional issues were most highly correlated with professional activities, suggesting that an APA member's position on professional issues was a much stronger predictor of support or non-support of anti-nuclear professional activities than personal activities or personal attitudes. Multiple regressions indicated that personal activities, personal attitudes, professional issues, gender, political affiliation, and professional orientation combined accounted for between 66% to 70% of the variance in level of support for professional activities.

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CHAPTER I

INTRODUCTION

The issue of whether it is proper for psychology and psychologists to assume an advocacy role in important social and political issues has been debated in the professional literature. Involved in this debate are issues of: values and ethics in psychology; what constitutes acceptable professional behavior by psychologists; psychology's role and mission in society; and the impact that social and political advocacy by psychologists might have on the credibility of psychology as a science and profession. Disagreements among psychologists are said to be based on varying personal values, political beliefs, misunderstandings about professional responsibilities, and conflicting philosophies about the science and profession of psychology (Hillerbrand, 1987). Additionally, the nature of advocacy by psychologists is viewed differentially as either "propaganda" or an obligation to express one's conscience (Robinson, 1984).

The notion that psychology serves to promote the interests and welfare of society is not new. The writings of early pioneers in psychology such as Hall, Munsterberg, McDougall, and Watson suggested: (a) a belief that psychology possessed tools and techniques to help promote social reforms, and (b) a wish for

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psychology to take an active role in the betterment of society (Morawski, 1982). The economic hardships imposed by the Great Depression in the early 1930's led psychologists to organize to address important issues of the day, such as fascism and war (Finison, 1983). In the early 1950's, psychologists played an acknowledged role in the U.S. Supreme Court's landmark decision Brown v. the Board of Education, ending school segregation (Klineberg, 1986). Psychologists have functioned as advocates on other important social and political issues such as sex and age discrimination, abortion, pornography, AIDS, and nuclear weapons.

The professional issues involved in the debate over societal advocacy by psychologists are multiple. The Ethical Principles of Psychologists do not appear to provide clear guidelines for making decisions in complex matters, such as professional advocacy (Hillerbrand, 1987; Kitchener, 1984). Examination of the Ethical Principles of Psychologists (American Psychological Association, 1981), reveals potential for conflict among several principles in decisions regarding advocacy. Principles relevant to the issue of advocacy include: (a) promoting and protecting human welfare, as stated in the preamble of the Ethical Principles; (b) presenting information objectively, accurately, and fully, and being alert to pressures and circumstances that might lead to misuse of influence (Principle 1, "Responsibility"); (c) recognizing whether one possesses the knowledge and skills relevant to the issues in question, and the

boundaries and limitations of one's professional competence (Principle 2, "Competence"); and (d) being sensitive to prevailing community standards and recognizing the impact of one's behavior (whether in conformity or non-conformity to community standards) on one's ability and the ability of colleagues to work effectively, and being aware of the impact of one's personal values on their work (Principle 3, "Moral and Legal Standards").

The issue of nuclear war is of particular interest in this regard because of the strong feelings and opinions it engenders in the general public (Yankelovich & Doble, 1984), and because of the attention given to nuclear war issues by psychologists since the 1940's (Morawski & Goldstein, 1985). Since the use of nuclear weapons against Japan in 1945, fluctuations have been noted in the quality and intensity of public concern regarding nuclear weapons. Yankelovich and Doble (1984) noted that in 1945 the American public supported the use of atomic weapons against Japan, and in the 1950's, the American public believed that the hydrogen bomb reduced the risk of another world war. By 1982, a majority of Americans, however, expressed concern about the dangers of nuclear weapons, believing both the U.S. and U.S.S.R. would be destroyed in an all-out nuclear exchange (Yankelovich & Doble, 1984). In response to concerns about deteriorations in U.S. and Soviet relations, and fears of nuclear holocaust, there was a surge of anti-nuclear weapons activism by citizens in

the U.S. and Europe in the early 1980's (Fiske, Fischoff, & Millburn, 1983; Klineberg, 1984). That nuclear weapons issues continued to command considerable public attention well into the late 1980's was evidenced by extensive media coverage of the Reagan-Gorbachev summit, which culminated in a treaty proposing to eliminate a whole class of nuclear weapons (Reagan and Gorbachev, 12/9/87).

Public interest and concern has not remained at constant levels however. Peaks in public interest about nuclear weapons has been shown to be related to critical national and international events such as: the detonation of the Russian nuclear weapons in the late 1940's and early 1950's; the Cuban missile crisis, the Berlin wall, and nuclear test ban treaties of the early 1960's; the U.S. presidential race of 1980; and statements made by President Reagan in the early and mid-1980's (Kramer, Kalick, & Millburn, 1983; Polyson, Hillmar, & Kriek, 1986).

Psychologists have shown strong and shifting professional interests in nuclear war issues since the dawn of the nuclear age (Morawski & Goldstein, 1985). In the 1940's and 1950's, psychologists were primarily interested in studying public reactions to nuclear weapons, and studying ways to help citizens adjust to a world where nuclear weapons had become a fact of life. In the early 1960's, psychologists focused attention mainly on critiquing "psychological misperceptions inherent in

government policy and foreign affairs" (Morawski & Goldstein, 1985, p. 277). From the middle 1960's to the end of 1970 there was little activity by psychologists. By the 1980's psychologists became actively interested in addressing the psychological ramifications of living in the age of nuclear weapons, and dangers posed to human and ecological survival by nuclear weapons (Morawski & Goldstein, 1985).

Throughout the 1980's, increasing numbers of psychologists began to adopt a more active stance against nuclear weapons. Psychologists became more vocal about the dangers of nuclear weapons and the arms race (Deutch, 1983; Frank, 1987; Klineberg, 1984; A. Nelson, 1985; Smith, 1986; Smurthwaite, 1985), and psychologists advocated extending professional activities beyond the traditional role of researcher, to working more actively to influence public opinion and public policy regarding nuclear weapons (Blueprint, 1987; Klineberg, 1984; Morawski & Goldstein, 1985; Smurthwaite, 1985; Wagner, 1985). A view consonant with an anti-nuclear weapons position taken by many psychologists is the view that nuclear weapons represent the potential for ultimate destruction of life on earth, and that the nuclear arms race is a form of social-pathology which must be stopped (Chilstrom, 1984; Deutch, 1983; Frank, 1987; Rogers & Ryback, 1984). An alternative view advanced by Blight (1987, 1988) acknowledges the destructive potential of nuclear weapons. Blight suggests, however, that the existence of nuclear weapons

helps to prevent a major war, and it is important for psychologists to help policy-makers learn effective management in cases of nuclear crises.

Psychologists advocating increased anti-nuclear weapons professional activism have justified their position on an ethical and moral imperative of promoting and protecting human welfare (Klineberg, 1984; A. Nelson, 1985; Smurthwaite, 1985). Data from one survey of psychologists suggested, however, that not all psychologists are in agreement with this position (McConnell et al., 1986). Some psychologists believe that nuclear war issues are political and not within the realm of psychology proper, but that psychologists may engage the issue as private citizens (McConnell et al., 1986). Issues of professional competence, and whether psychologists possess the requisite knowledge and skills to engage nuclear war issues have been addressed by supporters of increased involvement (Smurthwaite, 1985; Tetlock, 1986; Whitely, 1984), whereas there is a dearth of comment in the professional literature regarding psychologists' competence to address nuclear war issues from non-supporters of professional activism.

Supporters of anti-nuclear weapons advocacy have differing opinions about the scope of competence possessed by psychologists to address nuclear war issues. For instance, Smurthwaite (1985) suggested that psychologists have a mission to halt the arms race, and that they possess the requisite research and clinical skills that legitimize educating the public, facilitating citizen

awareness and promoting direct citizen action to stop the arms race; Smith (1986) suggested that psychologists' activities should be based solely on solid research data, and psychologists' competence resided solely in the realm of developing ideas and framing issues in a way that can stimulate new thinking by policy-makers on the issue.

In 1982, the Council of Representatives of the American Psychological Association passed a resolution in support of a bilateral nuclear freeze (Abeles, 1983; Mervis, 1982). Polyson, Stein, and Sholley, (1988) found that 74% of APA members supported the adoption of the bilateral nuclear freeze resolution by the APA Council of Representatives, and 82% supported maintaining or increasing APA's involvement in nuclear weapons and foreign policy issues. McConnell, et al. (1986) reported that an unspecified majority of respondents supported the APA Council of Representatives' bilateral nuclear freeze resolution. In addition, McConnell, et al. (1986) found a simple majority of APA members agreed: that it was appropriate for psychologists to make public statements against nuclear weapons (59.7%); and that psychologists should not separate their roles as professionals from their roles as private citizens when addressing nuclear weapons-related issues (55.9%). Polyson, et al. (1988) indicated their findings, however, belied the fact that a minority of respondents were very adamant in their disagreement with the actions of the Council of Representatives, and APA's

involvement in nuclear weapons issues. McConnell, et al. (1986) suggested that opposition to an APA policy of political advocacy may be related more to views of the role of APA, rather than the issue itself.

In addition to surveying psychologists' attitude towards nuclear war, McConnell et al. (1986) sampled psychologists' activities related to nuclear war while in both the citizen and professional roles. They found that psychologists engaged most often in reading literature (79.1%), signing petitions (53.5%), and discussing nuclear war informally with others (67.3%) as either private citizens or as psychologists.

Statement of the Problem

Psychologists have been professionally active in a variety of societal issues since the early part of the 20th century, and the notion that psychology serves the welfare of society dates to the early years of the discipline (Morawski, 1982). Decisions by psychologists to engage in societal advocacy are likely to be controversial, and oftentimes involve considerations of complex professional, philosophical, ethical, and personal issues (Hillerbrand, 1987). Psychologists frequently rely on their own individual interpretations of the Ethical Principles of Psychologists to determine acceptable standards of behavior (in the areas of research, applied practice, education, and public policy) when giving consideration to advocacy work in important

societal issues (Hillerbrand, 1987; Kitchener, 1984).

The controversy surrounding societal advocacy by psychologists is exemplified by the issue of anti-nuclear weapons advocacy. The issue of anti-nuclear weapons advocacy is a specific case of psychologists assuming an increasingly active role in attempts to influence public opinion and public policy on an important societal issue. Despite research findings that psychologists are not all in agreement on all professional issues, the level of anti-nuclear weapons activity by psychologists has reportedly been on the increase in the 1980's, and recommendations for psychologists to become more involved in nuclear war issues continue to crop up in the professional literature. In all likelihood, professional advocacy in important societal issues will continue to be controversial.

Although surveys have examined psychologists' attitudes and individual activities regarding nuclear war, empirical research has been lacking concerning the acceptability of specific activities designed to influence public opinion and public policy concerning nuclear war, and the relationships between these activities and significant professional issues related to advocacy. McConnell et al. (1986) examined activities performed by individual psychologists, but did not explore how a range of professional level activities (i.e., research, education, and applied practice-related activities) designed to influence public opinion and public policy concerning nuclear war, might be viewed

by members of the discipline. Perhaps focusing the debate by empirically examining relationships between specific anti-nuclear weapons professional activities, and personal and professional attitudes of psychologists could help shed light on the controversy surrounding professional advocacy in an important social and political issue.

The purposes of this study were to: (a) explore the extent to which consensus existed among APA members regarding specific anti-nuclear weapons activities engaged in by psychologists, acting in their professional roles; (b) examine professional and personal criteria that might relate to support for anti-nuclear weapons advocacy by psychologists; (c) explore whether parameters of acceptable professional behavior could be identified based on empirical research of professional and personal factors related to the acceptability of specific activities designed to influence public opinion and public policy on an important societal issue.

Research Questions

1. How important do psychologists believe it is to publicly speak out on the issue of nuclear weapons compared to other societal issues?

2. How do full members of the American Psychological Association (APA) compare to other groups in terms of nuclear weapons activism?

3. Do areas of consensus exist among APA members concerning the acceptability of professional activities related to the controversial issue of anti-nuclear weapons advocacy?

4. Where consensus does not exist among APA members concerning professional activities related to anti-nuclear weapons advocacy, can differences be described and explained by variables such as personal activism, personal attitudes and beliefs, professional issues, and demographics?

Definition of Terms

For the purposes of this study, the following definitions apply:

1. APA member: A registered member of the American Psychological Association who possesses a doctoral degree, and who holds the membership status of "Member" or "Fellow" in APA.

2. Activism: used synonymously with the term "advocacy" to refer to behavior whose aim is to influence public opinion and/or public policy regarding a social or political issue.

3. Advocacy: used synonymously with the term "activism" to refer to behavior whose aim is to influence public opinion and/or public policy regarding a social or political issue.

4. Anti-Nuclear: "Favoring a policy of freezing, reducing, or eliminating nuclear weapons by the United States" (Werner & Roy, 1985).

5. Anti-nuclear weapons professional activities: refers to anti-nuclear weapons activities that psychologists might engage

in, while acting in their professional roles. Such activities are presented in, but not restricted to, items 28 to 43 of the survey instrument (see appendix A).

6. Pro-nuclear: "Favoring a United States policy of developing, stockpiling, and deploying nuclear weapons" (Werner & Roy, 1985).

Basic Assumptions

A survey was developed that was composed of: (a) a behavior measurement scale with known reliability and validity, (b) individual items drawn from previous research and, (c) items devised specifically for this study. For the purposes of this study it was assumed that the survey instrument was a reliable source of information, and that all items were clear and understandable. It was assumed that a random sample of a large number (N = 400) of subjects would be representative of the population (APA members) under study. It was assumed that non-responders would not participate in this study for a variety of reasons not related to opinions sampled in this study, therefore representativeness would not be significantly affected by non-responders. It was assumed that 5-point Likert scales comprised equal intervals, and that subjects were capable of making the discriminations necessary to give responses that accurately reflected their views. Finally, it was assumed that subjects responded honestly and accurately, ensuring that their measured

opinions and behaviors were reliably and validly represented.

Limitations of the Study

This study was limited by the fact that only APA member psychologists were sampled, and views of non-APA psychologists were not sampled. Only subjects who had a residential or business address in one of the 50 states of the U.S.or District of Columbia, were sampled, thereby restricting generalizations to APA member psychologists who were residents of the continental United States, Alaska, and Hawaii. Because this was a self-report study, standardization of response across subjects could not be achieved due to probable effects of memory and subjective interpretation of items. Since only subjects willing to respond were included in this study, there is no way to know with 100% certainty the reasons why remaining subjects did not respond. The large number of subjects who responded to this study increased the likelihood of finding significant relationships among variables that might otherwise not be significantly related (type 1 error). Respondents' awareness of nuclear weapons issues was likely to be heightened because this study was conducted at a time when considerable media coverage was being given to U.S. - U.S.S.R. summits, and the signing of a treaty proposing to eliminate an entire class of nuclear weapons.

CHAPTER II

REVIEW OF THE LITERATURE

The purposes of this study were to: (a) explore the extent to which consensus existed among APA members regarding specific anti-nuclear weapons activities engaged in by psychologists, acting in their professional roles; (b) examine professional and personal criteria that might relate to support for anti-nuclear weapons advocacy by psychologists; (c) explore whether parameters of acceptable professional behavior could be identified based on empirical research of professional and personal factors related to the acceptability of specific activities designed to influence public opinion and public policy on an important social and political issue.

This literature review is organized into seven sections. The first section discusses literature which identifies professional issues related to social and political advocacy by psychologists. Included in this section is a brief historical overview of psychology's past interests in societal issues. To place psychologists' societal involvements into broader perspective, the second section presents an overview of activities that psychologists have engaged in regarding issues of societal importance other than nuclear war. The third section of this review focuses on the issue of nuclear war, and presents a discussion of psychologists' activities and issues in specific

areas of professional expertise (public policy, research, education, and applied practice). The fourth section focuses on empirical research relating to psychologists' personal attitudes, professional attitudes, and personal and professional activities related to nuclear war. The fifth section presents a review and discussion of the Nuclear Activism Questionnaire (NAQ). The NAQ was used as a measure of anti-nuclear weapons and pro-nuclear weapons activities in the present study. The sixth section presents empirical research on the behavioral, cognitive, and emotional responses of the general public to nuclear war and the threat of nuclear war. Research on citizens' responses to nuclear war was examined to help select questions sampling the personal attitudes of psychologists for the present study. The final section provides a summary and evaluation of the relevant literature, with a discussion of unique and distinguishing features of the present study.

Psychology and Societal Advocacy

Do psychologists, and does psychology as a profession, have a responsibility to be socially active when it comes to specific social issues? The issues of whether there is a proper role for organized psychology and individual psychologists in social and political advocacy, and what would be acceptable minimum standards for advocacy is a continuing debate. Arguments have focused on: psychology's role in the pursuit of knowledge and how

that knowledge should be used; psychology's role in the promotion of human welfare, and how the promotion of human welfare can best be served by psychology; the impact of societal advocacy on the integrity and credibility of psychology as a science and profession; whether professional ethics mandate action by psychologists and organized psychology to correct social ills; and the most appropriate means of promoting psychology as a science and profession. A variety of personal values, political beliefs, misunderstandings about professional duties, and philosophical conflicts underlying the profession of psychology pose barriers to arriving at a definitive position on this issue (Hillerbrand, 1987). Arguments for and against advocacy hinge on how one perceives: the philosophical foundations and values underlying psychology as a science and profession, the ethical responsibilities of psychologists, the role of psychology in contemporary society, and the responsibility of organized psychology (e.g., the APA) to it's members and to society.

Historical Perspective

Psychologists' interest in promoting the welfare of society has been traced to utopian writings of early pioneers in psychology (G. Stanley Hall, William McDougall, Hugo Munsterberg, and John B. Watson). The utopian writings of each of these psychologists was based on the premise that science serves society and is committed to human improvement, as contrasted with

the premise that science serves the rational pursuit of understanding the truths of nature (Morawski, 1982). Hall, McDougall, Munsterberg, and Watson all shared the beliefs that psychology had an essential role to play in the improvement of society and the tools and techniques of psychology, implemented by psychological experts, were essential to promoting social reforms (Morawski, 1982).

According to Morawski (1982), Hall conceived of the ideal society as one in which social desires prevailed over individual desires, and a harmonious relationship between people and nature existed. Psychology was a unifying force of knowledge, which helped bridge pure and applied research, and promoted social pluralism. McDougall envisioned a society based on principles of eugenics, in which members were selected to participate in a separate society and propagate based on intellectual, moral, and family history characteristics. Psychologists actively promoted social progress which proceeded from national and international cooperation to pacifism. For McDougall, psychology assumed a central role in promoting understanding of causal relationships between thought and behavior, and applied that understanding in a practical manner to improve quality of life.

Watson envisioned a well-ordered society based on behavioral principles. Psychologists shaped social and moral standards using psychological experimentation, and controlled behavior through implementation of behavioral principles

(Morawski, 1982). Other prominent early figures in psychology such as James McKeen Cattell, Joseph Jastrow, as well as later figures such as B. F. Skinner also posited an important role for psychology in actively shaping society (Morawski, 1982).

Finison (1983) traced the involvement of psychologists in social advocacy through the early years (1936-1950) of the Society for the Psychological Study of Social Issues (SPSSI), which is currently division 9 of APA. Finison (1983) indicated that massive unemployment lead to the birth of SPSSI as a professional organization concerned with social issues in 1936. Individually and collectively, SPSSI members actively supported and provided aid to loyalists in the Spanish Civil war, became active in other antiwar activities, and spoke out against the commonly held belief that war and aggression were inherent aspects of human nature. In the 1930's and 1940's, SPSSI members directed their professional efforts towards other professionals and the general public through such activities as: providing written analysis of war news during the early part of WW II, newspaper dispatches, and an exhibit at the 1939 World's Fair (Finison, 1983). Towards the end of WW II, SPSSI organized committees on international relations designed to help promote psychology's role in preserving international peace and security. SPSSI began to promote the notion that war and hatred of other people were learned, and arose through misunderstanding. Shortly after the birth of the United Nations, SPSSI received a grant to

devise a proposal for the development of an Institute of Human Sciences in the United Nations. The peace work of SPSSI ended in the 1950's, due in large part to the cold war sentiment sweeping the nation and politically motivated firings of university professors (Finison, 1983).

The Debate Over Advocacy by Psychologists

An examination of the Ethical Principles of Psychologists (APA, 1981) leads to the observation that ethical conflicts may arise in the process of deciding to become an activist in nuclear weapons-related issues, among others. A potential for conflict can be illustrated by an examination of ethical standards that relate to: the protection and promotion of human welfare; competence; scientific objectivity, and the dissemination of knowledge; sensitivity to community standards; and sensitivity to the social and political consequences of one's actions as a member of the profession of psychology.

The preamble of the Ethical Principles of Psychologists (APA, 1981) states that psychologists "are committed to increasing knowledge about human behavior and of people's understanding of themselves and others and to the utilization of such knowledge for the promotion of human welfare" (p. 633). Psychologists are expected to act competently; use their knowledge and skills objectively; and have concern for the best interests of those with whom they work, and society. Ethical

principle 1 ("Responsibility") addresses the maintenance of scientific objectivity; discussing the limitations of data, especially as the work of psychologists relates to social policy; and the responsibility to prevent distortion, suppression, or misuse of psychological findings. Ethical principle 2 ("Competence") addresses the maintenance of high professional standards of practice, and recognition of the boundaries and limits of one's professional and scientific expertise. Ethical principle 3 ("Moral and Legal Standards") states:

> psychologists' moral and ethical standards of behavior are a personal matter to the same degree as they are for any other citizen, except as these may compromise the fulfillment of their professional responsibilities or reduce the public trust in psychology and psychologists. (p. 634)

Psychologists are to be sensitive to community standards, be aware of and acknowledge personal value stances, and be sensitive to the effect their actions have on other psychologists and the profession.

Promoting human welfare, and professional credibility. Ethical conflicts may arise when a psychologist steps beyond the role of impassioned observer to one of public advocate for specific social or political causes. Psychologists may conflict in viewing social and political advocacy as a form of propaganda, versus advocacy as an expression of one's conscience (Robinson,

1984). Psychologists who become advocates run the risk of undermining the credibility of the profession in the eyes of their colleagues and the broader community. Yet on the other hand, psychologists who remain silent may be quietly condoning harmful practices, and may not be living up to the maxim of promoting and protecting human welfare (Payton, 1984).

Hatch (1982) stated that members of the U.S. Congress look to social scientists for objective presentation of research findings. He believed that psychology's most valuable contributions to society lie in increasing knowledge of human behavior, and psychologists who present their political beliefs as scientific fact reduce the credibility of psychology. Hatch believed that psychologists should be careful to not project an image of being a group on the fringe of dominant social values by advocating positions that run counter to prevailing social values and standards.

Bergin (1983), concurred with Hatch (1982). He believed that American psychology had become increasingly politicized, and as a result of taking stands on issues that he believed were outside the province of psychology, the credibility of psychology as a science and profession had been eroded. Atkinson (1977) drew a clear distinction between the scientific and citizen roles of psychologist. He believed psychologists collect data, and identify principles and laws that help expand knowledge of psychological phenomena in a value-free manner. Atkinson

believed it was in the role of citizen that psychologists could advocate for social policies based on scientifically and objectively presented data.

In 1982, the Board of Social and Ethical Responsibility for Psychologists (BSERP) determined that APA should continue to speak out on relevant social issues regardless of whether the issue is solely related to "welfare of psychology and the well-being of psychologists" (1982, p. 3). Payton (1984) indicated that the choice between promoting psychology by taking public stands only on issues that directly affected psychology as a science and profession, versus enhancing the credibility of psychology by taking public stands on issues that helped to promote social justice was a central issue concerning advocacy by psychologists and organized psychology. Payton believed that psychology has a mission to contribute to human and social welfare, and psychology could not avoid involvement in social and political issues. For Payton, social advocacy was necessary to promote the credibility of psychology, and failure to publicly address issues of social injustices did harm to psychology as a science and profession. Bevan (1982) indicated in his APA-presidential address that psychologists had much to contribute in helping promote individual and societal behavioral changes. He advocated for psychologists moving beyond only addressing issues that promoted psychology as a science and profession to making a commitment to address issues of significant national importance

which fall within psychology's areas of scientific and professional expertise.

Bazelon (1982) expressed the belief that many important policy decisions are made without benefit of having all the facts or having possession of the complete truth, and that psychologists possess knowledge and expertise that can help stimulate public policy decisions. Bazelon suggested that psychologists make valuable social contributions when they: make full disclosure regarding their own value stance on particular issues; identify that they are making observations and providing conceptual insights, rather than making conclusive statements; and discuss rather than avoid divergent opinions and findings. Leary (1983) acknowledged that psychology is a human endeavor permeated with numerous values and connections to social concerns, making it necessary for psychologists to explicitly state the value stances which undergird their work.

Garfield (1983) addressed the issue of psychologists' social and political advocacy by suggesting that limitations placed on psychologists' ability to inquire and express ideas freely would damage psychology in the long run, and impair scientific progress. Garfield stipulated that psychologists should be aware of the impact their views have on society, but he also believed that psychologists should not avoid entering into areas of social and political controversy because their views might be unpopular.

Ethical conflicts and decisions regarding advocacy. According to Hillerbrand (1987), there are three fundamental questions at the core of the social advocacy debate in psychology: (a) what constitutes a legitimate social issue, (b) who possesses authority to identify important social issues and determines action, and (c) what are minimal acceptable standards for advocacy by members of the profession and the profession as a whole? According to Hillerbrand, the Ethical Principles of Psychologists presents no explicit paradigm for social action, and therefore decisions for social action become based on implicit assumptions in, and one's understanding of the Ethical Principles.

Reese & Fremouw (1984) described ethical standards as normative guidelines which become codified by professional organizations into principles. Ethical norms run a continuum in many situations from clearly ethical to clearly unethical, reflecting overriding values of knowledge acquisition and promoting human behavior. Normative ethics, or ethics and values in use by members of a profession, provide guidelines for appropriate behavior and provide a basis for complex judgments and decisions, but do not necessarily prescribe action in specific instances (Reese & Fremouw, 1984).

Kitchener (1984) indicated that the Ethical Principles provides a framework for ethical decision-making, but contains gaps and contradictions that provide little guidance for

decision-making in complex ethical dilemmas. Kitchener stated that psychologists have an intrinsic commitment to the betterment of society through it's devotion to increasing knowledge about human behavior and the use of that knowledge to promote human welfare. Individual psychologists however, are left to using their own professional judgment when confronted with ethical dilemmas.

Hillerbrand (1987) suggested that conflicts over the appropriateness of advocacy relates to contrasting views of psychology as a science and profession, and beliefs about psychology's role in society. Differing views of psychology's role as a profession and science reflect several philosophical tensions underlying beliefs about the appropriateness of societal advocacy. First, psychologists may base advocacy decisions on judgments of justice and fairness (rational analysis of what constitutes right and wrong), or on a basis of caring and compassion for others (one's concern for the well-being of others). Second, psychologists may base decisions regarding advocacy on an interpretation of the Ethical Principles of Psychologists as a code mandating action to correct social injustices (promoting human welfare), or as a rule governed code providing guidelines for decision-making without an injunction to act. Third, psychologists may decide that advocacy should take the form of strict dissemination of facts, versus using facts to serve community needs while acknowledging and supporting one's

value stance.

Kimble (1984) found empirical support for the notion that there are important philosophical divisions in psychology that influence membership in one or another APA Division. Kimble asked members who belonged to either APA Division 3 (Experimental); Division 9 (SPSSI); Division 29 (Psychotherapy); or Division 32 (Humanistic) to rate themselves on a continuum which paired opposing scientific-professional bases assumed to underlie either a scientific or humanistic tradition. Though some overlap was found across dimensions, members of Division 3 were distinguished by more frequent adherence to knowledge gained through scientific methodology, objectivism, and universal lawfulness of behavior (nomotheticism). Members of the other divisions were distinguished by more frequent adherence to knowledge gained through intuitive processes, holism, and idiographic laws of behavior. Though significant results were obtained from small select samples (ranging in size from 30 to 58), the implications of Kimble were that similar philosophical differences may underlie an APA member's beliefs about the appropriateness of societal advocacy by psychologists and APA.

When the controversy concerning societal advocacy focuses on APA's role, questions about the authority of APA advocating on issues not having a direct impact on the profession and practice of psychology are raised. For Robinson (1984), social advocacy by APA is a political and ethical act that extends beyond the

traditional role of professional governance structures. Robinson indicated that lack of clarity of organizational bylaws about social advocacy fostered divisions within APA because of unresolved questions about representativeness, and resource allocation.

A study related to issues raised by Robinson (1984) was conducted by Jarrett and Fairbank (1987) who sampled APA members' levels of support for professional and societal advocacy. Professional advocacy was defined as "advocacy only on issues relevant to the interests of psychology" (p. 643). Societal advocacy referred to issues affecting society at large. Jarrett and Fairbank sampled 1000 systematically selected APA members using a 22-item attitude and activity questionnaire which was completed by 358 respondents. Subjects were asked their opinions on professional and societal advocacy, and asked whether APA advocacy efforts should involve endorsement of certain positions, organizational resources, or both. Jarrett and Fairbank found clear support for societal advocacy, but support for professional advocacy was significantly higher. Respondents were more supportive of spending resources for advancing professional issues than for societal issues. Nuclear disarmament was one activity listed under the societal issue category, and interestingly it was ranked eighth (out of 13 societal issues) in terms of support for resource allocation and position advocacy. Although response rate was small, and sample representativeness

in question, this study suggested that APA members were supportive of advocacy, though societal advocacy was deemed secondary to advocacy promoting the interests of the profession.

Psychologists' Activities in Selected Societal Issues

The issue of nuclear weapons is but one of many societal issues that psychologists have taken a professional interest in. This section provides an overview of psychologists' activities related to several select societal issues. Psychologists' activities related to the issues of: Abortion, pornography, discrimination, and AIDS, are highlighted. The range of activities psychologists have professionally engaged in include research, legal advocacy, and active membership on governmental commissions involved in shaping public policy.

Abortion

The controversy is popularly characterized as the right to life versus a woman's right to choose what happens to her own body. Abortion has been a very controversial issue for many years (Walsh, 1987a) and continues to keep segments of society polarized. The legalization of abortion in 1973 made access to research subjects easier, providing psychologists the opportunity to study the psychological effects of abortion with greater methodological sophistication (Walsh, 1987a). Psychologists have also been active in the legal system regarding issues related to

abortion.

Research. Professional opinion regarding the psychological effects of abortion on women has shifted since the 1950's. Prior to 1960, research in the U.S. suggested that women who had abortions experienced significant negative psychological outcomes (e.g., depression), whereas studies conducted after abortion became legal suggested women did not experience significant problems (Osofsky & Osofsky, 1987). Research in the 1980's found generally no negative psychological after-effects from abortion, although some women who did experience psychological problems requiring professional assistance were reported (Lodl, McGettigan, & Bucy, 1987). Lodl et al. suggested an interesting reason why negative after-effects of abortion may not have been reported in prior research. They posited that findings of negative after-effects in the 1970's may have been suppressed because researcher's may have felt that such information might give anti-abortion groups support for their positions. The lack of reported negative after-effects, however, may have impeded the development of effective treatment programs for women having post-abortion adjustment difficulties according to Lodl et al. (1987).

Legal advocacy. In addition to research activities, psychologists have been involved in legal advocacy regarding abortion rights for minors. Psychologists have testified as

expert witnesses in federal court ("Supreme Court", 1988), and the APA filed friend of the court briefs in federal court cases (see Bales, 1987). Legal briefs urging state and federal courts to overturn parental consent laws have been based on research indicating that minor females (age 14 and older) were as capable of making independent and competent decisions as 18 year old females (Melton & Russo, 1987). In late 1987, a friend of the court brief was filed in the U.S. Supreme Court by an APA sponsored committee called the Interdisciplinary Committee on Adolescent Abortion (ICAA). The ICAA filed the brief in the belief that as scientists and professionals, psychologists were ethically bound to respect the privacy of individuals, protect the civil rights of clients, and provide knowledge and services to minors and their families facing difficult decisions (Interdisciplinary Committee on Adolescent Abortion, 1987).

Pornography

Psychologists have been actively involved in research concerning the effects of pornography since the 1970's. Whether pornography is harmless, or whether it contributes to increased crime and aggression towards women is a continuing social and scientific issue (Walsh, 1987b). Psychologists have also been active participants on governmental commissions investigating relationships between pornography, crime and aggression towards women (Koop, 1987; Wilcox, 1987).

Research. Green (1987) argued that data from laboratory research examining a relationship between pornography, crime, and violence towards women are inconclusive. He stated that results of laboratory research in human behavior has limited generalizability because of methodological flaws and limitations inherent in laboratory research. Two socially useful roles for pornography were suggested by Green (1987): (a) educational, by providing information to students and others about sexual practices, and stimulating discussion about sexual behavior; and (b) therapeutic, by teaching patients about sexual expressiveness, increasing sexual responsiveness, and improving communication between partners.

Malamuth (1987), while indicating that the effects of pornography by itself may be small, suggested that pornography may be a factor within a larger matrix of factors that influenced directly and indirectly attitudes and aggression towards women. Malamuth suggested that pornography may directly lead to violence against women by encouraging people prone to antisocial behavior to act on violent impulses. He also suggested that pornography helps create a permissive climate in which violence towards women is socially reinforced through indirect influence on the attitudes of people not personally prone to violence.

Political involvement. Psychologists have been in an interesting position regarding their participation on government

commissions investigating the effects of pornography on crime and violence towards women. Psychologists presented research data and helped draft a report to the U.S. Surgeon General on the relationship of pornography and behavior (Koop, 1987). Psychologists were active members on the politically controversial pornography commission called by Attorney General Meese, popularly known as the Meese Commission (Linz, Donnerstein, & Penrod, 1987; Wilcox, 1987). Psychologists later publicly refuted the conclusions and recommendations of the Meese commission citing misuse of psychological data. According to Linz, et al., the commission's recommendation for stricter sanctions against pornography was based on the faulty conclusion that pornography caused violence against women, when the data merely suggested correlations between pornography and violence.

Discrimination

Psychologists' have actively addressed issues of discrimination in several ways. Activities have included research, advocacy in the courts, and activism in public education. Psychologists historically have generally taken strong stands against racial segregation, and continue to take stands against discrimination based on race, sex, and age. Psychologists' activities relating to several kinds of discrimination will be touched on in this section.

School desegregation. School desegregation has been an issue that psychologists have had considerable societal impact on. In the early 1950's psychologists testified as expert witnesses in state courts regarding the effects of state mandated racial segregation. The highlight of psychology's involvement in school desegregation was preparation of the "social science statement" which was incorporated into a legal brief that helped the U.S. Supreme Court hand down the 1954 Brown v. the Board of Education (Brown) decision, forcing an end to segregation in U.S. schools (Klineberg, 1986). According to Klineberg (1986), the social science statement was a summary of court testimony by psychologists, and findings from behavioral and social science research, outlining the negative effects of segregation on Black and White children. Klineberg indicated that Chief Justice Warren acknowledged that the social science statement had significant impact on the Supreme Court's decision by helping the justices to strengthen their opinions on this especially controversial issue.

Psychologists have been involved in spirited debate about the role of psychology in the Brown decision, and the effect of the social science statement on society. Critics have argued that it was premature for psychologists to be advocates in the Brown case because of a relative lack of research data available concerning the effects of desegregation on society (Gerard, 1983). Further, Gerard (1983) questioned whether psychology did

a service or disservice to society in that nearly 30 years after the Brown decision, data concerning the effects of desegregation had not been as optimistic as originally predicted in the early 1950's.

Supporters of psychology's role in the school desegregation struggle indicated that the issue was the psychological and social effects of enforced segregation of Black and White children existing at that time (Cook, 1984; Klineberg, 1986). The social science statement was defended as having had extensive research backing, and having addressed the critical social issue identified by the courts (Cook, 1984). Cook (1984) and Klineberg (1986) indicated that psychology and the social sciences had achieved greater credibility, and have subsequently been playing increasingly bigger roles in informing the public and helping to shape public policy on discrimination related issues.

Sex discrimination. In a review of psychology's role addressing issues of sex discrimination, Russo and Denmark (1984) indicated that psychologists have been professionally active in several ways, such as: (a) research; (b) participation in the 1978 President's Commission on Mental Health, Subpanel on the Mental Health of Women; and (c) testifying as expert witnesses in trials of women who have killed their battering husbands. In addition, the APA submitted amicus briefs in cases where women have killed their battering husbands. According to Blackman

(1988), a majority of state supreme courts routinely admit psychologists as expert witnesses on the "Battered Woman Syndrome". Psychologists' involvement in public policy development has brought mixed results. In some cases, psychologists helped perpetuate sex discrimination, while in other cases psychologists helped break new ground for women (Russo & Denmark, 1984).

In the realm of education, psychologists have played pivotal roles in fostering policies promoting greater sexual equality. Psychologists have identified sex-biased education materials, have helped develop education materials that were sex-balanced, and helped implement policies and procedures to achieve greater sex-balanced instruction in the classroom (Klein & Simonson, 1984). In addition, psychologists have helped educators, and state and national policy makers be more aware of sex-bias issues that prevent male and female students from equally achieving their educational goals (Klein & Simonson, 1984).

Age discrimination. According to Kimmel (1988) "ageism" (discrimination on the basis of age) is linked with public policy, and leads to problems for the elderly in three ways: (a) prejudicial attitudes against aging by society, and by the elderly themselves; (b) discrimination against the elderly in employment, housing, and other areas; and (c) policies and practices of social institutions that perpetuate harmful

stereotypes which substantially reduce the elderly's quality of life (Kimmel, 1988).

Psychologists have become increasingly aware of problems associated with aging in this country, and have become increasingly aware of the role psychological research can play in either fostering greater public understanding of aging, or preserving negative stereotypes about the elderly. For instance, Schaie (1988) stated that poorly informed psychologists may draw erroneous conclusions from research that inadvertently fosters and reinforces negative stereotypes about the elderly. Schaie indicated because conclusions drawn from psychological research may become accepted as scientific fact and help determine public policy on age related matters, psychologists need to be sensitive to the conclusions they draw from their research to prevent contributing to discrimination of the elderly. Kimmel (1988) pointed out that as an area of public concern and public policy, psychologists must be certain that research questions, research designs, and data analysis and interpretation, do not promote negative stereotypes that help promote public policies that discriminate against the elderly.

Acquired Immunodeficiency Syndrome (AIDS)

The social, psychological, and health consequences of AIDS have been subjects of considerable research and discourse in the professional literature during the last few years. AIDS, a

behaviorally transmitted disease (Morin, 1988) has been called the number 1 public health problem in the U.S. (Pelosi, 1988). Since AIDS was first identified in 1981, the number of reported cases has mushroomed, and AIDS is now a leading cause of death among young people in certain regions of the country (Batchelor, 1988). AIDS has been emerging as a major social, political, economic, and public health problem.

A presidential commission on AIDS recommended that prevention is the most promising approach to stopping the spread of the disease, however prevention strategies have been difficult to implement because social barriers exist in many forms (Watkins, 1988). Batchelor (1988) indicated that AIDS victims in the U.S. (gay and bisexual men, IV drug users, Blacks and Hispanics in disproportionately high numbers) are affected by discrimination, threats of violence, refusal to be provided treatment, and poor services. Herek and Glunt (1988) described AIDS victims as doubly stigmatized because they often came from groups which were targets of prejudice before the emergence of AIDS. Fear of AIDS may also give some individuals and groups opportunities to exploit that fear for their own personal and political gains, at the expense of the victims and society (Herek & Glunt, 1988).

Psychology has been identified as having an important role in confronting AIDS because of it's expertise in research, education, and treatment for behavioral change (Watkins, 1988).

In addition, Morin (1988) believed that alleviating negative social, political, and economic reactions to AIDS is a major challenge for the science and profession of psychology.

Psychologists' responses to AIDS. On an organizational level, the APA has taken a leadership role in organizing efforts to deal with the myriad issues presented by AIDS (Matarazzo, Bailey, Kraut, & Jones, 1988). The APA has been active in a number of ways such as: providing public and professional education on AIDS; establishing an Office on AIDS; establishing a national taskforce on Psychology and AIDS; founding a coalition of professional groups with expertise in mental health and prevention that keeps political leaders in Washington D.C. informed about AIDS; helping congressional legislators draft non-discriminatory legislation concerning testing for the Human Immunodeficiency Virus (HIV) antibody; and lobbying for increased government funding for AIDS-related mental health research, prevention, and treatment (Matarazzo et al., 1988).

On an individual level, psychologists provide a range of therapeutic services to people at risk, or infected by HIV (McKusick, 1988). Psychologists have been actively debating whether there is a duty to warn the sex partners of sexually active clients known to be HIV positive (Melton, 1988). Psychologists conduct research with high risk populations in order to identify culturally relevant prevention and treatment

programs (Des Jarlais & Friedman, 1988; Peterson & Martin, 1988; Stall, Coates, & Hoff, 1988). Psychologists have also been advocating sensitivity to social, ethical, and legal concerns related to HIV prevention and testing programs, and advocating that counseling and education services be provided to all concerned citizens (Coates, et al., 1988).

Psychologists' Perspectives and Activities Related to Nuclear War

This section provides an overview of the perspectives and activities of psychologists who have been actively involved in nuclear war related-issues. Involved psychologists generally agree on the destructive potential of nuclear weapons, and for the most part hold similar views about the arms race. There is some sharp division among involved psychologists about the effects on public policy and on policy-makers of psychologists' current conceptual models and activities related to nuclear war. Overviews of psychologists' activities in specific areas (public policy, research, education, and applied practice) and related professional issues are presented in this section.

Overview

According to Morawski and Goldstein (1985), psychology as a profession has been involved in nuclear weapons related issues since 1945, with gradual shifts in focus and intensity of activity which have seemingly been related to changing social and

political climates. Morawski and Goldstein indicated that in the 1940's and 1950's psychologists explored psychological dimensions of the possibility of nuclear war, focusing on public attitudes towards nuclear war, reducing public fears about nuclear war, and treating "psychological casualties" (p. 282) in the event of a nuclear war. In the early 1960's, psychologists focused on preventing war by examining processes of international relations. A lull of activity in the late 1960's and 1970's was followed by increasing interest on the "psychological consequences of living in the nuclear age" (p. 282) in the 1980's.

APA's efforts to address the risks of nuclear war culminated in a resolution passed by the Council of Representatives (APA Council) in 1982 calling for a bilateral nuclear freeze:

> The American Psychological Association (1) calls upon the President of the United States to propose to the U.S.S.R. that together both countries negotiate an immediate halt to the nuclear arms race. Specifically, we call upon each country to adopt an immediate mutual freeze on all further testing, production, and deployment of all nuclear warheads, missiles, and delivery systems; and (2) calls upon the Administration and the Congress to transfer funds saved to civilian use. Concurrently, they should work jointly with labor, management, and local communities to develop plans to convert the nuclear arms industry to civilian

> production, thus protecting jobs and strengthening our national economy. We hereby call upon elected officials at local, state, and federal levels publicly to endorse this resolution (Abeles, 1983, p. 677).

The resurgence of interest in nuclear war issues by psychologists has been attributed to recognition that probabilities for nuclear war depends on human behavior, and the belief that psychology has a role in working to reduce the risks of nuclear war (Wagner, 1985; Whitely, 1988). Psychologists were co-signatories with other scientists on the "Seville Statement" (Adams et al., 1987) which proclaimed that violence and aggression were not genetically determined aspects of human behavior. The Seville Statement was endorsed by the APA Council of Representatives (Landers, 1987). Based on the belief that violent behavior is not genetically determined, war (and nuclear war) is not seen as an imminent outcome of biological drives, and humans have the capacity to alter behavior that might lead to war.

A current focus among psychologists interested in addressing nuclear war issues is the view that nuclear weapons provide only an illusory sense of security because of their potential for limitless destruction to all forms of life and to the physical environment (Frank, 1985). Frank (1985) stated that prior to the advent of nuclear weapons, increases in conventional weapons made sense as a way of promoting a nation's security, but current

modes of thinking about national security have become outmoded because of the potential for massive destruction by nuclear weapons.

It has been suggested that the full impact and meaning of nuclear weapons and their potential for destructiveness has not been fully grasped by the general public and policy-makers (Deutch, 1983; Smith, 1986). Rogers (1982) suggested that the consequences of nuclear weapons have been trivialized in American society, as evidenced by the growth in children's videogames that have a goal of destroying the enemy with nuclear weapons. Lifton and Falk (1986) suggested that people are continually bombarded with symbols and images of nuclear destruction (such as through the media) and that they are unable to process this input, resulting in an emotional shutdown called "psychic numbing". They believe that "psychic numbing" helps explain what they perceive as public apathy and lack of activity against nuclear weapons. Smith (1986) contended, however, that the normal psychological defense of denial operates, rather than psychic numbing, to help explain how people cope with the threat posed by nuclear weapons. Smith suggested that normal denial serves to protect individuals from feelings of danger when little can be done to change a situation.

Psychologists' Activities

Public policy and politics.

Psychologists have utilized

psychological knowledge, assumptions, and observations to construct theories of the nuclear arms race in attempts to better understand the current state of international affairs, and offer insights to the general public and policy-makers in order to reduce risks of feared nuclear catastrophe. Smith (1986) suggested that psychologists can offer new ideas and new ways of thinking based on empirical research, to help policy-makers and the general public solve old problems.

Promoting and protecting human welfare has been a primary rationale used to justify psychologists' activism in the public arena regarding nuclear weapons (Chilstrom, 1984; Smurthwaite, 1985). Psychologists who subscribe to this position assume an imperative towards action. Psychological models attempting to describe and explain the arms race have been suggested which hold strong similarity to models of psychopathological processes. In short, the arms race is seen as an interactional process between the superpowers which has been spiraling out of control, and without intervention will lead to nuclear destruction.

Chilstrom (1984) likened escalation of the arms race to cycles of neurosis. He suggested that the arms race poses a threat to national and international security because perceptions of the "enemy" are distorted and unrealistic; the goal of security is undermined by the destructive potential of nuclear weapons; and strategic thinking becomes illogical and adopts faulty premises (i.e., winnable war, limited nuclear war,

acceptable level of casualties, nuclear superiority). Frank (1987) discussed imbalances in superpower relationships, and leaders' drive for power and domination as fuel for the arms race. He suggested that national leaders are sane and calculating individuals who treat nuclear weapons as if they were simply larger conventional weapons, and that more weapons meant greater national security.

Probably the clearest formulation of the spiraling process of the arms race was advanced by Deutch (1983). Deutch suggested that the U.S. and U.S.S.R. get trapped in a spiraling "malignant process" where mutual trust is lacking, rational behavior becomes less evident, and each side is made to feel less secure, rather than more secure through increased stockpiles of nuclear weapons. The spiral gets escalated by: competition for superiority which in fact, has been outmoded by the destructive potential of nuclear weapons; rigid adherence to ideologies that lead to misperceptions and misunderstandings of the motives and intentions of other nations; self-fulfilling prophesies; a win or lose orientation; gamesmanship; and escalating spirals of tension and threat.

There is general consensus of opinion among psychologists subscribing to these models that altering the pathological processes which fuel the arms race require international trust, cooperation and increased recognition of common national interests. One model of tension de-escalation which has been

credited as having had some influence on Kennedy after the Cuban missile crisis (Etzioni, 1986) was developed by a psychologist, Osgood (1986), called Graduated and Reciprocated Initiatives in Tension Reduction (GRIT). GRIT is a series of alternating unilateral steps taken by each side in conflict to reduce tension. Rogers (1986) described a unique 4-day workshop he led in Rust, Austria, where 50 leaders from many Central American and other nations gathered to work through conflict and promote cooperation using Rogers' person-centered approach. The workshop was deemed a success, and culminated in the signing of a declaration affirming the person-centered approach to international cooperation, and participants' pledge to work towards increasing peaceful cooperation with other nations. The long-term effects of this workshop have yet to be known; however, positive signs regarding the usefulness of this type of approach were illustrated by an analysis of the Camp David peace negotiations between Israel and Egypt (Rogers & Ryback, 1984).

GRIT and Rogers (1986) were some examples of psychologists' involvement in the public policy and political arena which have shown some promise of success. Despite psychologists' activities in the public arena, serious questions have been raised about the effectiveness of psychologists' public involvement in nuclear war related issues. Morawski and Goldstein (1985) indicated that despite 40 years of involvement in nuclear war issues, they could find little evidence of significant public impact. They

suggested that psychologists re-examine their "self appointed professional obligations" (Morawski & Goldstein, 1985, p. 282) and examine whether the role of dispassionate scientific observer/researcher is an effective role for dealing with an important social and political issue such as nuclear war. They suggested that the issue of nuclear war has both a historical and political context, and psychologists must consider these contexts when dealing with nuclear war related issues.

Blight (1987, 1988) questioned in rather acidic tones the impact psychologists have had on the decisions and behavior of nuclear policy makers. Believing that psychologists speak a different language from policy-makers, he stated that policy-makers see little relevance and pay no heed to what psychologists have to offer, because policy-makers do not attribute significance to the notion that the arms race is a psychological issue. Blight suggested that factors affecting international relations are more analogous to "gang warfare" (1987, p. 21) than to disturbed patients who present themselves to psychologists for help. Blight suggested that in order for psychologists to have what he terms greater "policy relevance", they need to see the world through the eyes of policy-makers, and assist policy-makers in becoming more aware of their own decision making processes, and help policy-makers learn to manage nuclear crises more effectively.

Psychology and research. Psychology as a science depends upon data based research to expand it's knowledge base and increase understanding of human behavior. A prominent issue in the debate over social and political advocacy by psychologists in nuclear war issues identified by McConnell et al. (1986) was whether sufficient research data exists to justify advocacy, and whether advocacy efforts are based on research findings. According to Tetlock (1986), research on nuclear war related issues walks a fine line between psychological, political, and moral issues. When psychologists present current knowledge to those in policy-making positions, they engage in a political act with potential political consequences (Tetlock, 1986).

Many believe that psychologists can make valuable contributions through their research expertise and knowledge about many aspects of human behavior relating to nuclear policy making, such as decision making, intergroup processes, interpersonal perception, conflict resolution, and crisis management (Blight, 1987, 1988; Deutch, 1983; Frank, 1987; Klineberg, 1984; Smith, 1986; Tetlock, 1983, 1986). Other psychologists have conducted research into the psychological responses of the general public to nuclear war issues (i.e., Chibnall & Weiner, 1986; Hamilton, Chavez & Keilin 1986; Tyler & McGraw, 1983; and others). Some suggest (e.g., Smith, 1986) that psychologists activities should be based only on solid understanding of research, yet others (e.g., Smurthwaite, 1985)

suggest that at the present time psychological knowledge is limited and more work needs to be done in a variety of research and non-research areas.

Psychology and education. Questions about the detrimental effects of incorporating nuclear weapons and nuclear war information into the educational curricula of children and adolescents has been addressed in the literature. Countering arguments that introducing nuclear war information into the curricula of children and adolescents would create anxiety and otherwise traumatize students, it has been suggested that students would not be traumatized by information about nuclear war (Chavez, Hamilton, & Keilin, 1986; Doctor, Goldenring, & Powell, 1987; Hamilton, Knox, Keilin, & Chavez, 1985; Nair, 1987). Hamilton et al. (1985) suggested that adolescents were cognitively capable of effectively coping with nuclear war information. Nair (1987) demonstrated that adolescents were capable of dealing with nuclear war information without experiencing increased anxiety and trauma. Chavez et al. (1986) pointed out that developmental differences should be considered in devising nuclear war education curricula, and that educators should provide information to students in age appropriate ways to minimize feelings of helplessness, and decrease feelings of fear associated with nuclear war.

Psychology and applied practice. Questions concerning the ethics and wisdom of psychologists dealing with nuclear war related matters in counseling and clinical practice has been discussed by A. Nelson (1985), and Flanagan and Sommers (1986). Nelson posited that psychology must assist individuals and society to achieve "psychological equivalence" (1985, p. 549), meaning helping clients and society attain levels of awareness and capability to respond to threats facing them. He indicated that an imperative to promote and protect human welfare necessitated helping clients break through "denial" and "psychic numbing" in order to deal with the perceived threat of nuclear war. Psychotherapy, Nelson proposed, can promote the development of "accurate perceptions" (p. 551), assist clients achieve new levels of awareness, and promote positive changes by confronting the nuclear threat directly.

Flanagan and Sommers (1986) cautioned that determining whether to promote awareness, and how it should be done ought to be based on careful clinical evaluation, not based on a therapist's assumption that nuclear war should be addressed in treatment because it is a matter of grave concern to all. Professional neutrality and client self-determination should be the overriding ethical principles to all therapists according to Flanagan and Sommers. Smith (1986) suggested that denial about nuclear war may in fact be an adaptive response serving to protect the psyche when there is little one can do about external

stressors. Therapists have primary responsibility to be aware of their own biases, and assess whether a client is willing and can handle increased awareness.

Gerber (1988) provided anecdotal support for addressing social and political concerns (nuclear war and others) with clients. He discussed a relatively unique approach to eliciting client perceptions about social and political issues in the therapy hour. Gerber reported that as part of his initial assessment of new clients (n = 16), he routinely asked in a non-directive fashion client views of various contemporary social and political issues. He reasoned that knowing how a client viewed and responded to social and political issues provided an additional window into the personality of the client, and such knowledge would enhance therapy. Gerber stated that many clients responded by discussing their concerns freely. Several chose not to pursue discussion, and one expressed a strong negative response to his inquiry. Gerber indicated that how a client responds to his inquiry was diagnostic of how clients generally respond to their larger social contexts, and this information helped tailor and facilitate treatment. He reported that regardless of client responses, only one client left therapy because he moved away. While his sample was small (possibly self-selected), and while client perceptions of the efficacy of talking about their social and political concerns in therapy was not empirically analyzed, Gerber's approach suggested a way of

handling potentially thorny ethical issues in the treatment hour for psychologists interested in pursuing nuclear war related (and other societal) issues with clients.

Empirical Research

Psychologists' Attitudes and Activities Regarding Nuclear War

This section presents results of two surveys of psychologists' attitudes and activities related specifically to the issues of nuclear war. These two studies were important in two ways. First, they comprised the extent of empirical research available to date concerning psychologists' personal attitudes, stands on professional issues, and activities related to nuclear weapons and war. Second, these studies provided the foundation upon which the present study was conceived and developed.

Polyson, Stein, & Sholley (1986, 1988) mailed nuclear war attitude surveys to 530 members of APA in 1983, who were randomly selected from the APA Membership Register. Subjects were asked whether they agreed with the bilateral nuclear freeze resolution passed by the APA Council of Representatives (APA Council) in 1982. Opinions about whether APA should maintain, expand, or decrease it's level of activity regarding nuclear war were solicited, along with subjects' attitudes towards other nuclear war related matters. A response rate of 54.7% (N = 290; males n = 187, females n = 103) was achieved. The average age of the sample was 44.2 years (range = 26-80 years), and the average

length of APA membership was 12.9 years (range = 1-44 years).

Polyson, Stein, and Sholley (1986, 1988) found that 76% of respondents agreed with the APA Council's bilateral freeze resolution. It was also found that 45% supported expanded advocacy by APA, 37% were in favor of maintaining APA's level of activity which culminated in passing the freeze resolution, and 18% favored decreased advocacy by APA. Supporters of the freeze resolution were by and large supportive of expanding APA's advocacy role (54%), while 43% were satisfied with maintaining APA's activity level to the freeze resolution. Not surprisingly, 86% of non-supporters of the APA Council's resolution favored a decreased role for advocacy by APA.

Data regarding other attitudes indicated that a majority of respondents were concerned about the prospect of nuclear war ("extremely concerned" = 48%, "somewhat concerned" = 43%); believed that their individual chances to survive a nuclear war were unfavorable ("extremely poor" = 39%, "poor" = 29%); believed that a significant percentage of the U.S. population would not survive in a nuclear war ("0" survivors = 8% of respondents, "1-25%" survival = 49%, "25%-50%" or "50%-75% survival = 33%); believed that direct citizen involvement would decrease the chances for a nuclear war (69%); did not believe that meaningful arms control required an increase or modernization of the U.S. nuclear arsenal (64%); and believed that verifiability was

essential to arms control negotiations (65%).

Respondents were more divided on their desire to survive a nuclear war, and perceptions of the likelihood of nuclear war by the year 2000. Thirty-five percent expressed a desire to survive a nuclear war, while 34% did not want to survive, and 32% were unsure. Ten percent believed that a nuclear war was probable before the year 2000, whereas, 53% did not believe nuclear war was probable, and 35% declined to predict.

Support of the APA Council's freeze resolution, and support for maintenance or expansion of advocacy efforts by APA were associated with several attitudes. Supporters of the bilateral nuclear freeze resolution, and supporters of APA advocacy efforts tended to: express greater concern about the likelihood of nuclear war; perceive a lesser likelihood of personally surviving a nuclear war; perceive greater human casualties; believe citizen involvement could reduce the risk of nuclear war; believe that verifiability was important but not essential to arms control; and believe a build-up or modernization of U.S. nuclear arms was not necessary for meaningful arms control. In addition, supporters of APA advocacy efforts expressed a lesser desire to survive a nuclear war, and perceived a greater likelihood of nuclear war before the year 2000. Interestingly, of those who disagreed with the APA Council's freeze resolution, there was a sizable percentage (41%) who believed that citizen action could reduce the risk of nuclear war. Polyson, Stein, and Sholley

(1986, 1988) suggested that this group may support a nuclear freeze but does not believe it is APA's role to further that goal.

Gender differences were reported for several attitudes. The most prominent gender difference was on the desire to survive a nuclear war, in which a greater percentage of females (45%) did not want to survive compared to males (25%). Females tended to express slightly more pessimism about their personal chances for survival, and were slightly more pessimistic about the extent of human casualties in the event of a nuclear war. Women were also slightly more supportive of the freeze resolution, and more likely to support expanded APA advocacy efforts. No significant differences were found based on age, marital status, or number of children.

The next survey reported results of psychologists stands on professional issues and activities regarding nuclear war (McConnell, et al. 1986; McConnell, Guethlen, Reinhard, Ruffing, & Strupp, 1984). Using a computerized random sample list provided by APA, McConnell et al. (1984, 1986) mailed a self-constructed questionnaire to 942 members of APA in 1983. The survey contained 20 self-constructed closed and open-ended questions sampling personal and professional demographics, personal and professional attitudes, and behavior (using two checklists). Only one mailing was conducted (S. McConnell, personal communication, 6/22/88) and the response rate was 31.5%

(N = 297). The mean age of respondents was 51.0 years (SD = 14.8, range = 28-89 years), and the mean number of years of post-graduate experience in psychology was 18.8 years (SD = 12.9, range=0-54 years). Males comprised 77% (n = 227), and females comprised 23% (n = 69) of respondents. The sample was overwhelmingly caucasian (93%, n = 276). "Practitioners" comprised 56.8% (n = 167), while 41.5% (n = 122) identified themselves as "Academic/Researchers", and 1.7% (n = 5) identified themselves as "Public Policy Activists". The following theoretical orientations were represented in the respondent group: "Behavioral/ Cognitive" (37.4%), "Psychodynamic/Freudian" (12.1%), Existentialist/Humanistic (7.1%), Eclectic (33.3%), and other (10.1%).

Data indicated a majority of respondents were supportive of nuclear war advocacy by psychologists and psychologist organizations. An unreported majority agreed with the APA Council's bilateral nuclear freeze resolution, and 62% of the sample wanted to see their local, state, and national psychology organizations address the issue of nuclear war. Respondents who identified themselves as Existentialist/Humanists were slightly more supportive of psychology organizations addressing nuclear war issues than other theoretical orientations ($p \leq .05$). McConnell et al. (1984, 1986) reported that 51.5% agreed that promoting and protecting human welfare necessitated taking a stand as a psychologist in favor of a nuclear freeze or

disarmament, whereas 34.9% disagreed. Separating personal and professional roles when addressing the issues of a nuclear freeze/disarmament was supported by 31.2%, while 55.9% did not support a role separation. Making public statements as a psychologist in support of a nuclear freeze/disarmament was seen as an appropriate use of the professional role by 59.7%, whereas 30.9% did not see this as appropriate. Over three-quarters (76.5%) of respondents did not believe that nuclear war was inevitable, and 56% indicated they did not wish to survive in case of a nuclear war. In response to an open-ended question, respondents who did not wish to survive most often cited concern about poor quality of life as the primary reason.

Presented with a list of activities, respondents were asked to check activities that they participated in either as a private citizen, professional or both. Very few respondents (maximum percentage = 3%) reported engaging in any activity as both a private citizen and professional. Respondents tended to engage in activities related to nuclear war across the board more often while identifying as private citizens than identifying as professionals. It was found that a majority of respondents participated primarily in three activities: reading relevant literature (54.2%, 21.9% respectively), signing petitions (41.8%, 9.1% respectively), and participating in informal discussions about nuclear war (36.7%, 28.3% respectively). Fewer than 17% donated money, time, or energy to any professional organization

concerned with nuclear war [i.e., Union of Concerned Scientists (16.8%), Psychologists for Social Responsibility (8.4%)].

Large majorities of respondents reported not participating in any other activities such as marches (79.8%), distributing relevant literature (84.2%), volunteering time to an organization promoting awareness of nuclear arms (84.5%), or organizing groups or activities related to nuclear war (89.9%). Individuals who did not engage in any anti-nuclear activities cited several reasons for lack of involvement. Lack of time, money, or energy were cited as the most common reasons (no data reported), followed by "apathy" (i.e., lack of interest, feelings of powerlessness), and belief in the deterrent effects of nuclear weapons. Analysis of variance by age indicated a small significant ($p \leq .05$) tendency for older APA members to read literature, distribute literature, and make financial contributions. Contrary to the findings of Polyson, Stein, and Sholley (1986, 1988), gender was not found to be a significant variable in this study.

Measurement of Nuclear Weapons Activism

The nuclear Activism Questionnaire (NAQ), developed by Werner and Roy, (1985) is discussed in this subsection because of it's role in measuring the frequency of nuclear weapons activism by subjects in the present study. A discussion of research utilizing the NAQ is presented, along with a discussion of the

relative strengths and weaknesses of the NAQ.

Werner and Roy (1985) developed the Nuclear Activism Questionnaire (NAQ), a brief measure assessing nuclear weapons activities, as a way of gaining insight into the behavioral responses of individuals seeking to reduce or eliminate nuclear weapons, and individuals seeking to increase "nuclear preparedness" (p. 181). Werner and Roy administered a 58-item questionnaire sampling 29 behavioral domains (activities). Each behavioral domain was sampled bi-directionally; that is, each subject was asked two questions about an activity. One question asked the subject how frequently he or she engaged in an activity in an anti-nuclear direction (e.g.,"signing an anti-nuclear weapons petition"), the other question asked about the same activity in a pro-nuclear direction (e.g., "signing a pro-nuclear weapons petition"). Subjects responded to each item by indicating on a scale ranging across "0" (never), "1" (one), "2" (two), "3" (three or more), the frequency of each activity over the previous 4 years. The theoretical range of scores attainable was 0-42.

The initial version of the questionnaire was administered to five different groups of people from the San Francisco Bay area. The five groups included subjects who were non-randomly selected from: (a) "peace activists" (n = 51) attending peace vigils and peace classes; (b) Catholic religious teachers (n = 51) attending a meeting about teaching the Catholic Bishop's Peace Pastoral

Letter; (c) psychology graduate students (n = 45) attending the California School of Professional Psychology in Berkeley; (d) Republican party members (n = 42) attending a political meeting; and (e) defense industry workers (n = 38) employed at either a nuclear weapons research lab, or commercial defense contractor.

Responses to the initial questionnaire were scored along 4 scales (anti-nuclear activism, pro-nuclear activism, bi-polar activism and intensity). The anti-nuclear activism scale was a measure of an individual's frequency of activity related to reducing or eliminating nuclear weapons. The pro-nuclear activism scale was a measure of an individual's frequency of activity related to enhancing nuclear preparedness. The bi-polar scale was a measure of an individual's combined level of anti-nuclear and pro-nuclear activity.

Two sets of item analyses were conducted to derive a briefer, 14-item measure with high reliability. The final instrument titled Nuclear Activism Questionnaire (NAQ) was found to have high internal consistency reliability on two scales (bi-polar activism, alpha = .92; anti-nuclear activism: alpha = .92). Pro-nuclear activism had acceptable reliability (alpha = .83). The intensity scale had low reliability (alpha = .56), and was not utilized by Werner and Roy (1985).

Group mean frequencies on each scale were derived, and groups were ranked according to mean frequency of activity for each scale. On bi-polar activism, groups ranked in the following

order: (a) peace activists (M = 17.18, SD = 4.23); (b) religious teachers (M = 12.29, SD = 5.62); (c) psychology students (M = 12.02, SD = 6.46); (d) Republicans (M = -5.52, SD = 6.68); and (e) defense workers (M = -.1.58, SD = 9.19).

On anti-nuclear activism, peace activists, religious teachers, and psychology students had mean frequencies of activity very similar to their respective bi-polar activism scores. Defense workers ranked 4th, and Republicans ranked 5th (M = 4.47, SD = 6.33; M = 1.02, SD = 2.81 respectively), indicating a reversal between these two groups on this scale.

On pro-nuclear activism, Republicans had the highest mean frequency of activity (M = 6.55, SD = 5.49), followed closely by defense workers (M = 6.05, SD = 4.58). Psychology students ranked 3rd (M = 0.47, SD = 1.83) and religious teachers ranked 4th (M = 0.33, SD = 1.18). Peace activists were the least pro-nuclear, ranking 5th (M = 0.08, SD = 0.44).

Rank order correlations suggested that the NAQ had acceptable validity. Rank order correlations for each scale were reported as follows: bipolar scale, r = .71; anti-nuclear scale, r = .69; and pro-nuclear scale, r = -.63 ($p \leq .01$, respectively).

Other research using the NAQ. At the time of this writing, one study was available which used the NAQ as part of a validation procedure for another research instrument. Further research utilizing the NAQ was not found. Erdahl and Rounds

(1986) utilized the NAQ in a study validating the Nuclear Locus of Control Scale (NLOC). Modifying a version of a locus of control scale developed by Levenson (reported in Erdahl & Rounds, 1986), a portion of their sample (n = 35 undergraduate and graduate students) were administered the NAQ. Erdahl and Rounds found that the Anti-nuclear activism scale of the NAQ was significantly correlated with internal nuclear locus of control (r = .39, $p \leq .01$), suggesting that individuals who believed in their ability to have an effect on nuclear policy decisions were more likely to have engaged in anti-nuclear activities. No significant correlations were reported for pro-nuclear behaviors with the internal, powerful others, and chance scales of the NLOC.

Strengths of the NAQ. The NAQ was the only instrument available that provided a measure for both anti-nuclear weapons, and pro-nuclear weapons activities. The NAQ was a brief instrument with acceptable reliability and validity coefficients, making it useful for mail survey research where premiums are placed on economy of size. Group mean frequencies of activity and standard deviations provided ready norm referencing for group comparisons.

Weaknesses of the NAQ. The normative groups used in the development of the NAQ were not randomly selected, and were relatively small in size, suggesting limitations in the ability

to generalize results beyond these particular groups. Representativeness of normative groups was also in question because of the restricted geographic region from which subjects were drawn, specifically the San Francisco Bay area, which is commonly known for it's heightened levels of political activity compared to the rest of the nation. The effects of memory cannot be ruled out as a factor influencing the validity of this instrument, as subjects were asked to make fine discriminations concerning frequency of activity over a relatively long time span (4 years). Additionally, mean scores reported for the normative groups were based on responses to the initial 58-item instrument. It is not known if scale scores would be different if the normative groups had responded to the 14-item instrument, instead of the initial 58-item instrument.

Responses to Nuclear War in the General Population

The research presented in this section is designed to provide an overview of studies examining a variety of factors related to an individual's behavioral, cognitive, and emotional responses to nuclear war and nuclear war related issues. Variables examined in the studies presented below have been incorporated into the present study for the purpose of examining their relationships to support for anti-nuclear weapons professional activities by psychologists. Research into the responses of the general public to nuclear war has utilized a

variety of methodologies (i.e., mail survey, telephone survey, classroom administration, interview); a variety of subjects (college students, various groups of adults, children and adolescents); systematic, and most often non-systematic sampling (convenience samples); and a variety of research instruments (most often self-constructed).

The literature presented in this section does not lend itself to easy categorization because many studies examined more than one variable at a time. Studies tended to overlap with others in examination of some but not all variables, thereby making studies similar in some ways but different in other ways from each other. It was decided therefore, that categorization of the literature would be based according to the primary focus of each study (i.e., behavioral response or cognitive/emotional response research). In addition, cognitive/emotional response research was subcategorized according to important variables examined in each study. The organization of this section of the literature review follows the sequence of personal attitude items utilized in the research instrument for the present study (i.e., concern about nuclear war, perceived destructiveness of nuclear war, etc.). In several cases, studies are cited in more than one category. To avoid unnecessary repetition the first citation of each multiple listed study contains the most descriptive information about the research (i.e., sample size, subjects, etc.).

Behavioral response research. Fiske, Pratto, and Pavelchak (1983) presented results of a telephone survey of a stratified sample of 65 adults in Pittsburg, PA (representing a 55% response rate). Subjects were asked closed and open-ended questions about their attitudes, feelings, and beliefs about nuclear war, general political activity, and nuclear weapons related activities. Fiske et al. (1983) found that anti-nuclear activity was most highly correlated with general political activity (r = .40), followed by salience of the nuclear war issue (r = .20), and attitudes towards nuclear war (r = .18). A negative correlation was found between anti-nuclear activity and plausibility of nuclear war (r = -.24), suggesting that the greater the perceived likelihood of nuclear war, the less likely an individual was to engage in anti-nuclear weapons activities.

Tyler and McGraw (1983) asked a group of anti-nuclear war activists (n = 62) and a group of survivalists (n = 27) to complete a self-constructed nuclear war attitude and behavior survey. Fifty-six members of the general public who were approached in a variety of settings responded to interviews sampling their views about nuclear war. All subjects were sampled in the Chicago area. Tyler and McGraw found that prevention and survival behaviors were negatively correlated (r = -.34) suggesting that individuals engaging in high levels of one behavior tend to engage in low levels of the other behavior. Anti-nuclear activists were highly supportive of anti-nuclear

policies, and judged that nuclear war could be prevented but not survived. Survivalists were less strongly supportive of anti-nuclear policies, and believed that nuclear war was survivable but not preventable. Anti-nuclear activism was associated with high perceived risk of nuclear war, and high personal worry and concern, while survivalists also perceived a high risk for nuclear war, but had little worry or concern. Anti-nuclear activists believed that citizens had a responsibility to prevent nuclear war, and assumed that responsibility themselves.

Wolf, Gregory, and Stephan (1986) administered pre and post attitude, belief, and feeling measures to 282 college students who viewed the television film "The Day After". Wolf, et al. found that the best single predictor of behavioral intentions regarding nuclear war was the perceived efficacy of one's coping response (the positive impact of one's action). The combination of perceived likelihood of nuclear war, perceived severity of nuclear war, efficacy of coping response, and one's self-efficacy expectation was an effective predictor of anti-nuclear behavioral intentions, accounting for 27% of the variance for active behaviors (e.g., participation in anti-nuclear groups), and 21% of passive behaviors (e.g., discussing nuclear war).

Child and adolescent concern. The extent to which living in a world with nuclear weapons affects adolescent personality development has been an issue of concern to psychologists and

other behavioral scientists. In the early 1980's, research suggested that the threat of nuclear war negatively affected the psychological and social development of adolescents, leading to suggestions that nuclear anxiety in adolescents was a significant mental health concern. Escalona (1982), and Schwebel (1982) summarized findings from research with adolescents suggesting that adolescents were extremely concerned about the likelihood of nuclear war. The thought of nuclear war generated feelings of helplessness and resentment, and students learned to cope by using denial. Escalona stated that living under the threat of nuclear war fostered a sense of "powerlessness and cynical resignation" (1982, p. 601) in children and adolescents. Goodman, Mack, Beardslee, and Snow (1983) reported results of open-ended interviews with 31 adolescents suggesting that they were extremely concerned about the threat of nuclear war, and their concern interfered with their psychological well-being. Goodman et al. indicated that over half their students claimed worry about nuclear war, felt powerless, hopeless, and a sense of doom.

In more recent research, children and adolescents expressed varying degrees of concern about nuclear war, but findings were generally consistent in that serious mental health problems were not found associated with concern and worry about nuclear war. The research presented below tended to employ larger samples of students, and more structured data gathering instruments.

Doctor, Goldenring, and Powell (1987) administered attitude and anxiety scales to 913 junior high school and high school students. Students were asked to indicate their attitudes about nuclear war, and indicate their most pressing concerns. Nuclear war was ranked as the third most pressing concern by 31.9%, behind "parents dying" (53.5%), and "getting bad grades" (37%). Nuclear war ranked second, however, as one of their three greatest worries. High worry students were lower on trait anxiety, and tended to see themselves as more psychologically adjusted (i.e., happy, friendly, secure) and more socially concerned than low worriers. Older adolescent males tended to worry less than younger students or older females, and no significant differences were found for socioeconomic status or race.

Hamilton, Van Mouwerick, Oetting, Beauvais, and Keilin (1987) administered attitude and anxiety/depression measures to 8th grade (n = 1171) and 12th grade (n = 741) students. Students were also asked to rank their most pressing personal concerns. Their most commonly reported worries were "saying something wrong," and "failing a test," while nuclear war was one of their least concerns. Adolescents in this study were not overwhelmed with concern, anxiety, or intrusive thoughts about nuclear war, and concern about nuclear war did not significantly affect their reported daily activities.

Mayton (1987) reported that 51.4% of 11th and 12th grade

science students in Idaho spontaneously expressed concern about nuclear war when asked to complete an open-ended questionnaire asking about their five greatest worries and five greatest fears. Feelings of worry, anxiety, depression, and anger were moderately associated with spontaneously expressed concern about nuclear war; however, these responses were not found to be significantly associated with mental health problems or generalized anxiety. Rather, spontaneously expressed concern was most strongly associated with the value of living in a peaceful world.

Nair (1987) studied the effects of a nuclear education curriculum on ninth graders (n = 82). Students were non-randomly assigned to either a 6-week long special class studying nuclear war and the arms race, or a no treatment control group. Pre and post testing of students' attitudes and anxiety about nuclear war indicated that nuclear war ranked third as a concern for students, behind "parents dying" and "getting bad grades." Students who reported being fearful of nuclear war did not demonstrate increased levels state or trait anxiety, suggesting that concerns and fears about nuclear war were not related to psychological disturbance.

Adult concern about nuclear war. Results of research with adults generally indicates that adults are not significantly psychologically affected by concern about nuclear war. One study (Newcomb, 1986) found modest correlations between anxiety about

nuclear war and impaired psychological and social functioning. Increased levels of concern and anxiety, however, were found to be related to stronger attitudes against nuclear weapons and nuclear war, increased intentions to learn about nuclear war, and increased intentions to become involved in anti-nuclear weapons activities.

Newcomb (1986) administered a self-constructed nuclear attitudes questionnaire to 722 young adults (ages 19-24). Subjects were also administered several additional tests measuring felt purpose in life, life satisfaction, depression, feelings of powerlessness, and drug use. Newcomb found that nuclear anxiety was modestly associated with decreased feelings of purpose and satisfaction in life, and increased feelings of powerlessness and depression. Anxiety about nuclear war and drug use were significantly associated for men and women, although men tended to report more drug use and denial, and women tended to report decreased feelings of life purpose and satisfaction, greater concern, fear, and pessimism.

Hamilton, Chavez, and Keilin (1986) studied college students' (n = 308) attitudes, level of anxiety, and responses to descriptive statements, about nuclear war. They found that 21% of their sample reported being affected emotionally by the threat of nuclear war, while 58% reported little or no effect. Hamilton, et al. (1986) found that students varied in their appraisals of nuclear war, and their coping responses to nuclear

war. Levels of concern, worry, and anxiety varied across dimensions of appraisal/coping. For instance, "disarmists" were found to have high levels of concern and anxiety about nuclear war, and perceived a 40% chance of nuclear war. "Romanticists" reported low levels of personal impact either cognitively or emotionally. "Deterrentists" had high levels of concern and fear about the intentions of the Soviets (not nuclear war), and perceived a 32% chance of nuclear war. "Hedonists" were moderately concerned, and reported feeling the highest personal impact, while "Altruistic-Fatalists" reported worry and concern, but little personal impact. These findings suggested that anxiety and concern affects college students to greater and lesser degrees, and a college student's coping style was influenced by a number of factors including concern and worry about nuclear war.

Hamilton, Knox, Keilin, and Chavez (1985), reported results from a study of 297 college students and their parents (n = 546) comparing generational responses to nuclear war. Hamilton, et al. (1985) found many small but statistically significant differences between the generations. Students reported more concern and anxiety, as well as more pessimism about the likelihood of nuclear war than their parents. College students tended to endorse a more "hedonistic" coping style (i.e , living for the pleasures of the moment), while parents endorsed a deterrentist orientation towards nuclear war more often.

Ciarlo and Rose (1987) sampled 4745 adults in a statewide epidemiologic survey of mental health issues in Colorado, exploring the extent to which concern and anxiety about nuclear war affected the lives of Colorado residents. They found that 80% of their sample reported very low feelings of anxiety, while 8% reported moderate to high levels of anxiety about the likelihood of nuclear war. Of those reporting moderate to high levels of anxiety about nuclear war, 5.5% indicated that the most serious negative effect on daily functioning was some impairment of their "enjoyment of life." Anxiety about nuclear war was not found to be a significant mental health problem, though anxiety about nuclear war was more related to an individual's concern about environmental hazards.

Kulman and Akamatsu (1986) studied the cognitive and emotional responses of 357 college students to nuclear war. A self-constructed 85-item "Nuclear Reactions Scale" (NRS) measuring attitudes to various nuclear war-related matters and an anxiety scale were administered. Kulman and Akamatsu found that 76% of their sample worried about the possibility of nuclear war several times a year. Individuals higher in trait anxiety expressed more concern and worry about nuclear war, had more dreams, and thought about nuclear war more often than low trait anxiety subjects. High trait anxiety subjects were found to worry more about social issues in general, suggesting that these subjects' responses to nuclear war may have been magnified by

their predisposition to anxiety in general.

Mayton (1987) reported results of studies with several different samples of college students between 1983 and 1987 using an open-ended questionnaire asking students to identify their five greatest worries and five biggest fears of the future. The frequencies in which nuclear war was spontaneously expressed were calculated for each sample. Mayton reported that 50% of the 1983 sample expressed spontaneous concern about nuclear war, while 49.1% of the 1984 sample expressed spontaneous concern, and only 23.3% of the 1985 sample reported spontaneous concern. Mayton reported that expressed spontaneous concern was moderately correlated with feelings of worry, anxiety, depression and anger, but not significantly associated with mental health problems or general anxiety. Spontaneously expressed concern was significantly associated with a value placing a priority on a peaceful world.

Schuman, Ludwig, & Krosnick (1986) conducted a longitudinal national survey in 1982-1983, studying why relatively few Americans saw nuclear war as the most pressing issue facing the U.S. Open and closed form questionnaires were sent to different groups of randomly selected subjects (sample sizes ranging from 170 to 272) over the course of the study. Regardless of the form of questionnaire used, nuclear war was not considered a pressing issue for three reasons: (a) other issues such as inflation, unemployment were seen as more immediate concerns; (b) denial

about the likelihood of nuclear war, and (c) the belief that there was little they could do to reduce the risk of nuclear war. Schuman et al. found that women tended to deny the possibility of nuclear war half as often as men, and women were twice as likely to feel that nuclear war was out of their control. Significant national and international events (i.e., invasion of Grenada, downing of a Korean airliner by the Soviets) however, tended to heighten respondents' awareness and concerns, as indicated by a 17% increase in reported concern about nuclear war around the times of these events.

Perceived destructiveness of nuclear war. The perceived destructiveness of nuclear war has been associated with increased anti-nuclear weapons attitudes in some circumstances, and decreased intentions to engage in anti-nuclear weapons activity in others. Differences may lie in the fact that attitudes do not necessarily translate into action in many circumstances for many different reasons.

Zweigenhaft, Jennings, Rubenstein, and Van Horn (1986) sampled over 1000 high school and college students in the U.S., England, and Australia to learn more about cross-cultural attitudes and knowledge about the consequences of nuclear war. Zweigenhaft et al. found no consistent relationships between knowledge about the consequences of nuclear war and anxiety. A significant relationship was found between knowledge and

attitudes about nuclear war suggesting that the more knowledge one had, the more pessimistic one was likely to be about the consequences about nuclear war. Greater pessimism about the consequences of nuclear war was associated with support of anti-nuclear weapons sentiment.

Fiske et al. (1983) reported that individuals who had concrete images of the destructiveness of nuclear war were more likely to engage in anti-nuclear weapons activities than subjects whose images of the destructiveness of nuclear war were abstract.

Johnson (1986) randomly assigned a sample of college students (N = 140) to one of five groups, four experimental and one control. Experimental groups received different amounts of information concerning the consequences of nuclear war, and the control group received no information. Johnson found a trend across groups suggesting that subjects who perceived increasing losses from a nuclear war were more likely to cope with this prospect by making the losses seem less likely to occur. Perceptions of increased losses were also associated with decreased willingness to devote time to efforts designed to prevent nuclear war.

Feshbach and White (1986) found no relationship between the perceived destructiveness of nuclear war and support (or non-support) of a nuclear weapons freeze. In a study of 80 college students, Feshbach and White found no consistent profile of freeze supporters, while hostile attitudes towards the Soviets was a

more important determiner of non-support of a nuclear freeze.

Nuclear weapons policy support. Chibnall and Weiner (1986) telephone surveyed adult residents (n = 110) of St. Louis, MO, in which they sought to identify attitudes that helped determine the type of nuclear weapons policy adults supported. Belief in the deterrent effects of nuclear weapons was the strongest predictor on nuclear policy support. Anti-nuclear weapons supporters believed that nuclear weapons increased the risk of nuclear conflict and war, whereas supporters of nuclear weapons production perceived nuclear weapons as essential to preventing war and relieving the threat of foreign attack. Subjects who believed in a policy of deterrence believed that nuclear weapons, not citizen involvement reduced the risk of war. These subjects reported lower levels of anxiety than anti-nuclear supporters, because of a lower perceived likelihood of war.

In a study of 115 college students, Feshbach and White (1986) found that college students generally lacked accurate information concerning nuclear weapons issues. When supporters and non-supporters of a nuclear freeze were compared, it was found that supporters were slightly more knowledgeable on matters such as which nation had publicly announced a "no first use" policy. It was suggested that support of a nuclear freeze was in part related to extent of knowledge about nuclear war. In another study reported in Feshbach and White (1986) sampling 251 adults

in Muncie IN, it was found that 80% of respondents supported a mutual nuclear weapons freeze, and 28% supported a unilateral nuclear freeze. Non-supporters of a nuclear freeze perceived the Soviets as untrustworthy, aggressive, and immoral. Non-supporters also perceived freeze supporters as cowards and unpatriotic. No consistent profile of freeze supporters emerged; however, support of a nuclear freeze was associated with higher education, younger age, and greater affluence. Women tended to report more anxiety, thought nuclear war was more likely, and were more pessimistic about the outcome of a nuclear war than men.

Zweigenhaft (1985) explored factors associated with attitudes towards nuclear war and nuclear weapons policy. He randomly assigned 266 college students to either a no treatment control, or one of three experimental conditions: (a) view a film about how to survive a nuclear war, (b) view a film about massive nuclear destruction, and (c) read a book about perceived human and ecological consequences of nuclear war. Zweigenhaft found that subjects exposed to the film and book depicting destruction saw nuclear weapons as highly dangerous, were less supportive of a policy of deterrence, less supportive of small scale use of nuclear weapons, and more knowledgeable about nuclear weapons and nuclear war. Slight gender differences were noted, suggesting that women were more inclined to support a weapons freeze, and less likely to want to survive a nuclear attack.

Schoefield and Pavelchak (1985) examined the results of public opinion polls conducted after the airing of the television movie "The Day After." Results of public opinion polls suggested that public attitudes towards arms control were little changed by viewing the film. They indicated that the film did not appear to provide new information, or challenge assumptions already held by the public about nuclear weapons and nuclear war. Schoefield and Pavelchak suggested that awareness of the film's "disaster" script based on pre-screening publicity, and less graphic than anticipated screen images may have mitigated attitudinal change.

Data from other studies suggested that 60% of 357 college students supported nuclear freeze proposals (Kuhlman & Akamatsu, 1986), that young adult women were less supportive of nuclear weapons production than men (Hamilton, Knox, Keilin, & Chavez, 1985; Newcomb, 1986), and that higher educational and occupational status was associated with support of a nuclear weapons freeze (Hamilton, Knox, & Keilin, 1986).

Perceived likelihood of nuclear war. Erdahl and Rounds (1986) examined the effects of political events on the estimated likelihood of nuclear war. A self constructed Nuclear Likelihood Questionnaire (NLQ) was administered to 90 undergraduate and graduate students 1 week prior to, and 3 weeks after the Reagan-Gorbachev summit in 1985. Data gathered before the summit indicated that most subjects perceived a low likelihood

for war occurring 1 week after the summit, but 60% indicated a high likelihood of nuclear war at some point in the distant future. Data gathered after the summit indicated a reversed trend. Many subjects perceived a likelihood in the immediate future, but a lower likelihood in the long run, suggesting that significant political events mediate an individual's perception of the likelihood of nuclear war.

White and Feshbach (1987) found that 60% of a sample of 251 adults in Muncie, IN believed that a nuclear war was somewhat or very likely within 10 years of being surveyed. Women were inclined to believe a nuclear war was more likely than men. Kuhlman and Akamatsu (1986) found that trait anxiety was associated with college students' perceived likelihood of nuclear war. High trait anxiety students were more inclined to believe that a nuclear war was likely, but these subjects tended to be worrisome in general, suggesting that perceived likelihood of nuclear war was a function of a subject's general anxiety level. Tyler and McGraw (1983) found that perceived likelihood of nuclear war was associated with activities related to the risk of nuclear war. The direction of activity (anti-nuclear, or survivalist) however was based more on factors relating to beliefs about survivability, and moral responsibility to prevent nuclear war.

Hamilton et al. (1986) found that estimation of the likelihood of nuclear war figured prominently in many nuclear war

coping orientations in college students, however the ways in which college students coped with prospects of nuclear war were mediated by other variables such as perceived personal impact, concern about nuclear war or concern about the Soviets. Fiske, Pratto, and Pavelchak (1983) found a slight negative correlation between perceived likelihood of nuclear war and activity, suggesting that individuals who perceived a higher likelihood of nuclear war were less inclined to engage in activities designed to reduce the risk of war.

Efficacy of citizen involvement. Tyler and McGraw (1983) found that feelings of personal efficacy correlated with beliefs in the prevention of nuclear war and anti-nuclear weapons activism. Anti-nuclear activists were found to believe in the political efficacy of their actions, and were more likely to engage in activities designed to reduce the risks of nuclear war than survivalists (who believed more in the efficacy of personal preparedness, and less in the efficacy of citizen involvement to prevent war), and the general public. Wolf et al. (1986) found that perceived efficacy of coping response was the best single predictor of anti-nuclear behavioral intentions. Perceived efficacy of coping response was also found to be a pivotal factor in promoting the expectation that one's behavior could have a desired effect when the likelihood and severity of nuclear war were perceived as high.

Chibnall and Weiner (1986) found that supporters of a policy of deterrence attributed responsibility for avoiding nuclear war to nuclear weapons, and not to citizen involvement. Supporters of a nuclear freeze believed that citizens could have an effect in reducing the risk of nuclear war, and believed that citizens had a responsibility to act to prevent nuclear war. Schuman, et al. (1986) found that one primary reason given by the general public to explain why nuclear war was not an issue believed to be the most pressing facing the U.S., was the belief that there was little citizens could do to prevent a nuclear war. Hamilton, Chavez, and Keilin (1986) found that college students who were more pessimistic about the future and prospects of nuclear war felt less empowered to do something to prevent a nuclear war.

Desire to survive a nuclear war. Tyler and McGraw (1983) found that desire to survive a nuclear war was a significant variable differentiating between anti-nuclear activists and survivalists. Anti-nuclear activists expressed little desire to survive a nuclear war, and channeled their concern into nuclear war prevention activities. Survivalists did not see nuclear war as preventable, and channeled their concern into preparations to survive in the event of a nuclear war. Zweigenhaft (1985) found that college students who viewed a film depicting preparations to survive a nuclear war were more inclined to want to survive than students who viewed a film or read a book depicting massive human

and ecological devastation from a nuclear war. Hamilton, et al. (1985) found that college students were less likely to want to survive a nuclear war than their parents. Males were also found to have a higher expressed desire to survive than females.

Support of the Strategic Defense Initiative. The Strategic Defense Initiative (SDI) is a relatively new military concept which is currently in the research and development phase. SDI has been proposed as a defensive system that would make nuclear weapons obsolete, however SDI engenders considerable resistance at the international bargaining table. The Soviets, for instance, see SDI as a military system that causes destabilization of relations and the military balance between the U.S. and U.S.S.R., (Gorbachev's words, 1988). This variable was included in the present study to explore whether support for this military system is significantly related to APA members' endorsement of anti-nuclear weapons professional activities.

Only one study was found asking subjects' responses to SDI. Hamilton et al. (1985) asked college students and their parents about their attitudes towards SDI. It was found that males in both groups were more supportive for increased production of nuclear weapons including SDI, suggesting that SDI was seen as a system that increased nuclear preparedness, and provided protection against a nuclear attack from a foreign source.

Summary of Literature

Professional issues. Discussions in the literature regarding professional issues related to societal advocacy, and nuclear war in particular, have been instrumental in identifying professional concerns about advocacy and shaping these issues operationally for the present study. Non-empirical literature focusing on professional issues associated with advocacy efforts by psychologists and APA was reviewed, and two empirical studies examining the scientific and humanistic "cultures" of psychology, and psychologists' opinions about professional versus societal advocacy were reviewed.

In general, non-empirical literature suggested that disparity of opinion regarding advocacy could be roughly classed into two broad categories. One category comprised a set of reasoned opinions concluding that societal advocacy by psychologists placed the credibility of science and profession of psychology at risk in the eyes of the general public, that societal issues by their very nature were political and not within the realm of the professional expertise of psychologists, and that psychologists should restrict their activity to gathering and disseminating facts in a value-free manner, and advocacy efforts by psychologists or APA should be restricted to only those issues that directly promote psychology as a science and profession. The other category comprised a set of similarly

well reasoned opinions that supported societal advocacy on the basis that psychologists have a mission to promote and protect human welfare, that psychologists have professional competence and expertise to address societal issues based on their knowledge of human behavior, that the credibility of psychology would be enhanced by societal advocacy efforts.

A study by Kimble (1984) suggested confirmation for the notion that two cultures exist within psychology that have differing philosophical bases (scientific and humanistic). These differences helped to explain why a psychologist joined one APA division or another. Although samples were relatively small (range 30 to 58) and questions about representativeness existed because of small response rates in several cases, his data provided information which might be helpful in explaining why some psychologists support societal advocacy while others do not. Jarrett and Fairbank (1987) suggested that APA members were more supportive of professional advocacy than societal advocacy by APA, in terms of taking public positions and utilizing resources, though societal advocacy had clear, albeit lesser levels of support. This study too was marked by a low response rate (35.8%) which raised questions about generalizability of results. The Jarrett and Fairbank study was important, however, because it presented empirical data concerning APA members' opinions about two classes of advocacy which have previously received attention in the non-empirical literature.

In regards to nuclear war related issues, professional concerns regarding: promotion and protection of human welfare, role separation, appropriateness of speaking out as a professional, and APA's advocacy role were identified and examined in a survey of APA members by McConnell et al. (1984, 1986). Though marked by low response rate and questionable sample representativeness, McConnell et al. (1984, 1986) provided some baseline data about APA members' opinions on important professional issues related to nuclear war advocacy, and provided a foundation from which the present study expanded.

Important societal issues. An overview of psychologists' activities in several controversial societal issues (AIDS, abortion, discrimination, and pornography) was presented to help provide a framework in which to view psychologists' activities in important societal issues besides nuclear war. Psychologists' activities related to research, public policy, and legal advocacy were explored. A review of this literature helped to develop items which assessed the level of importance attributed to the nuclear war issue by psychologists as compared to other issues in the present study. Jarrett and Fairbank (1987) included the issue of nuclear disarmament in their survey of psychologists, and found that APA members viewed nuclear disarmament as less relevant for societal advocacy by APA than many other societal issues. The present study differed from Jarrett and Fairbank (1987) in that the present study included issues (AIDS, abortion,

pornography) receiving considerable attention in the media not sampled by Jarrett & Fairbank.

Attitudes towards nuclear war related issues. In order to investigate psychologists' personal attitudes towards nuclear weapons and nuclear war in the present study, research examining the attitudes, feelings, and behavior towards nuclear war in the general public was reviewed. This review was conducted to provide a broader empirical and theoretical foundation for choosing items sampling psychologists' attitudes and beliefs in the present study. Polyson et al. (1988) reported that several personal attitudes (concern about nuclear war, perceived destructiveness, desire to survive, efficacy of citizen involvement, and likelihood of nuclear war) were significantly related to psychologists' support of the APA Council's 1982 bilateral nuclear freeze resolution, and significantly related to endorsement of APA advocacy efforts in nuclear war related matters.

Research sampling the general public was reviewed to see how groups of non-psychologists responded to nuclear war related issues. In literature sampling the general public, several variables (concern about nuclear war, perceived destructiveness of nuclear war, desire to survive, perceived efficacy of citizen involvement, and perceived likelihood of nuclear war) emerged which showed promise of helping to distinguish supporters and

non-supporters of anti-nuclear weapons professional activities. Findings that these variables were significantly related to cognitive, emotional, or behavioral responses to nuclear war in the general public lent support to the selection of several items previously used by Polyson, Stein, and Sholley (1986, 1988) in their research with APA members. Two additional variables (support of nuclear weapons policies, and support of SDI) were not employed by Polyson, Stein, and Sholley (1986, 1988), but were found to have significant roles in citizens' responses to nuclear war related issues.

Studies examining the general public's attitudes, feelings, and behavior towards nuclear war employed various sampling methodologies including random sampling, stratified sampling, and non-systematic sampling procedures. Populations varied across studies (i.e., college students, parents of college students, adolescents, anti-nuclear and survival activists, and adults from various age groups, socioeconomic strata, and regions of the U.S.). Measurement instruments were often self-constructed, but some studies included standardized measures of anxiety and depression. The implications for the present study from research with the general public suggested that the personal attitude variables cited above played an important role in an individual's responses to nuclear war. It appeared that these variables would also be significantly related to an APA member's responses to anti-nuclear weapons advocacy by psychologists, thereby

justifying their inclusion in the present study.

Research sampling APA member psychologists. Results of two surveys (McConnell et al., 1984, 1986; Polyson, Stein, & Sholley, 1986, 1988) of psychologists' attitudes and activities related to nuclear war were presented in detail. These studies provided a foundation on which the present study is based. McConnell et al. (1984, 1986) reported a low response rate (31.5%), and a substantial overrepresentation of males among respondents (77%). Polyson, Stein, and Sholley (1986, 1988) reported a more respectable response rate (54.7%), and reported a gender composition of respondents comparable to the APA membership. No information was provided by Polyson, Stein, and Sholley (1986, 1988) regarding follow-up procedures for non-respondents, and S. McConnell indicated in a personal communication (6/20/88) that no follow-ups were conducted. Lack of follow-up mailings in the study by McConnell et al. (1984, 1986) was one probable cause for low response rate, and overrepresentation of males in the final sample.

The studies by Polyson, Stein, and Sholley (1986, 1988) and McConnell et al. (1984, 1986) can be viewed as complementary research. The strengths of both studies lie in the fact that important data was collected in a timely fashion on a significant societal issue. Polyson, Stein, and Sholley (1986, 1988) generated data regarding APA members' personal attitudes towards

nuclear war and APA advocacy efforts. In addition, Polyson, Stein, and Sholley (1986, 1988) drew associations between personal attitudes and support of APA advocacy efforts in order to distinguish those who supported APA advocacy versus those who did not support APA advocacy. A limitation of this study was the lack of examination of professional issues, and how an APA member's stand on professional issues related to support of anti-nuclear war advocacy efforts by APA and individual psychologists.

McConnell et al. (1984, 1986) generated descriptive data regarding APA members' opinions on important professional issues related to anti-nuclear war related advocacy, and data concerning APA members' activities related to nuclear war. Asking respondents to identify their activities as private citizens, professionals, and both was a unique approach generating useful data about how APA members distinguish between their private and professional roles on this issue. There were several weaknesses, however, including low response rate, lack of sufficient evidence to assume sample representativeness, and a primarily descriptive approach in data analysis. Importantly, this study was limited by lack of analysis comparing APA members' stands on professional issues to endorsement of APA advocacy efforts, and anti-nuclear activities. Important data was lacking which would have helped distinguish supporters from non-supporters of APA advocacy, and active versus inactive psychologists, on the basis of positions regarding professional

issues related to anti-nuclear advocacy. Being that McConnell et al. (1984, 1986) identified important professional issues, it would have been illuminating to examine how APA members' stands on professional issues influenced their endorsement of APA advocacy efforts and individual activities.

Distinguishing features of the present study. At a time when issues concerning advocacy efforts by psychologists and APA have been receiving increasing attention in the professional literature and in professional conferences, the studies conducted by Polyson, Stein, and Sholley (1986, 1988) and McConnell et al. (1984, 1986) shed some, but insufficient light on the professional implications of nuclear war related advocacy efforts by psychologists. Polyson, Stein, and Sholley (1986, 1988) suggested that future research might examine the efficacy of individual efforts to reduce risks of nuclear war. McConnell et al. (1984, 1986) found however, that psychologists had been relatively inactive at the time of sampling. The two studies cited above have not resolved the debate over the professional propriety of engaging in a variety of anti-nuclear weapons activities while identifying as a psychologist.

The present study differed from Polyson, Stein, and Sholley (1986, 1988) and McConnell et al. (1984, 1986) in several important ways. First, this study assessed the extent to which consensus existed among APA members regarding the professional

propriety of engaging in anti-nuclear weapons professional activities. Second, this study utilized a standardized, albeit relatively untested instrument (NAQ), to measure a subject's anti-nuclear weapons and pro-nuclear weapons activities. Third, this study included personal nuclear weapons related activities, personal attitudes towards nuclear war, and stands on professional issues related to anti-nuclear advocacy as predictor variables in the research design. Fourth, this study used a correlation and multiple regression approach to explore the strength and direction of relationships between predictor variables and criterion variables (endorsement of anti-nuclear weapons professional activities). Fifth, this study included an examination of two professional issues not examined by McConnell et al (1984, 1986), namely competence and scientific objectivity related to anti-nuclear weapons professional activities. Sixth, this study utilized a tested procedure for conducting mail surveys (Dillman, 1978) which called for an initial mailing with two follow-ups at prescribed intervals. The procedure was modified slightly from Dillman's procedures, in that a replacement questionnaire was mailed in the first follow-up instead of a postcard reminder.

CHAPTER III

METHODS AND PROCEDURES

Purpose of Study

The role of the profession of psychology regarding important social and political issues has been raised in the professional literature. There appeared to be conflict of opinion regarding whether it is acceptable for psychologists to advocate particular positions on important social and political issues, or whether psychologists should remain neutral and not engage in social and political advocacy at the professional level. The major purposes of this research were to (a) examine how doctoral level members of the American Psychological Association (APA) compared to other groups in terms of nuclear weapons activism; (b) explore the extent that consensus existed among doctoral level members of the APA concerning the acceptability of professional activism in a controversial social and political issue, specifically anti-nuclear weapons advocacy; (c) examine factors that help to explain differences among APA members where consensus was not found.

Subjects

The subjects for this study were doctoral level members of the APA. Doctoral level members were selected for this study because the doctoral degree is considered the minimal standard

for independent professional practice in psychology, and because doctoral level psychologists are accorded full membership privileges in the APA. Only subjects who resided in one of the fifty states of the U.S. and District of Columbia were included in this study. APA members who resided in a U.S. possession, or foreign country were not included for the purposes of this study.

Subjects for this study were drawn from the APA Membership Register (APA, 1988). At the time this study was conducted, 58,649 doctoral level members were listed in the APA Register. A pool of 400 APA members were randomly selected to participate in this study using a table of random numbers (Kirk, 1984). It was determined that a subject pool of 400 APA members would have sufficient power to generalize results within an acceptable degree of error. In addition, anticipating the possibility of shrinkage due to non-response, it was determined that a sample size sufficiently powerful to generalize results within an acceptable margin of error could be attained using a targeted subject pool of 400 APA members.

A total of 278 surveys were returned. One hundred forty-seven responses to the initial mailing were received, 76 responses to the first follow-up were received, and 39 responses to the second follow-up were received. Of the returned surveys, nine surveys were not usable and were dropped from this study. Two individuals were deceased, one individual was out of the country, one individual reported not being an APA member, two

individuals left an excessive number of responses blank, and three individuals could not be reached at the address listed in the APA membership register. In addition, seven individuals returned surveys with the comment that they did not wish to participate. These individuals were counted as "non-respondents" and were included in the calculation of the response rate. As a result, there were 262 usable surveys for data analysis. An effective response rate of 67.01% was attained.

Instrumentation

The instrument employed in this study was a survey questionnaire composed of six parts. Part 1 measured a subject's frequency of personal activity regarding nuclear weapons. Part 2 measured a subject's personal attitudes towards and beliefs about nuclear weapons and prospects of nuclear war. Part 3 identified professional issues involved in professional activism regarding nuclear weapons and measured a subject's position on these issues. Part 4 presented a list of 16 activities that psychologists might engage in as professionals, and measured a subject's degree of approval of these professional activities. Part 5 measured how important a subject believed several different societal issues were for psychologists to become engaged in as professionals. Part 6 included demographics.

Items and scales used in this instrument were derived from

empirical research relating to attitudes and behavior regarding nuclear weapons, and professional issues and activities regarding nuclear weapons, which were discussed in the psychological literature. A pilot-test of a preliminary version of the instrument was conducted to identify ambiguities in item wordings, and identify other problems associated with the instrument. The final version of the instrument used in data collection was titled "Opinions on Anti-Nuclear Weapons Activism" (see appendix A).

Nuclear Activism Questionnaire

The first 14 items of the instrument comprised the Nuclear Activism Questionnaire (NAQ) developed by Werner and Roy (1985). The NAQ measured how often a person engaged in anti-nuclear weapons behavior and pro-nuclear weapons behavior within 4 years prior to participating in this study. The NAQ identified seven activities for which there were two questions each. Each activity had a question focusing in an anti-nuclear weapons direction, and a question focusing in a pro-nuclear weapons direction. Below are examples of how items were paired for each activity:

1. "In a conversation, saying that production by the U.S. of nuclear weapons should be decreased or stopped, when the subject was brought up" (item # 3).

2. "In a conversation, saying that production by the U.S.

of nuclear weapons should be maintained at its current level or expanded, when the subject was brought up" (item #4).

3. "Trying to convince a friend or acquaintance that production by the U.S. of nuclear weapons should be maintained at its current level or expanded" (item #5).

4. "Trying to convince a friend or acquaintance that production by the U.S. of nuclear weapons should be decreased or stopped" (item # 6).

Subjects indicated on a scale ranging across: "never" (0), "one" (1), "two" (2), "three or more times" (3 or more), the number of times they engaged in each activity during the previous 4 years. The NAQ had four scales on which scores could be derived. There were two unidirectional scales, Anti-nuclear weapons activism (Anti-nuclear) and Pro-nuclear weapons activism (Pro-nuclear), and two non-directional scales, Bipolar activism (Bipolar) and Intensity. The Anti-nuclear scale (comprising items: 1, 3, 6, 7, 9, 11, 14) and the Pro-nuclear scale (comprising items: 2, 4, 5, 8, 10, 12, 13) were independent measures of a person's level of activity with respect to anti-nuclear and pro-nuclear behavior. The Bipolar scale (comprising items: 1 through 14) was a measure of person's level of activity relative to the frequency of activity in one or both directions. The Intensity scale was a measure of pure activity without regard to direction.

Scoring. To derive scores for the Anti-nuclear scale, responses to each item on this scale were summed, and a single score was derived. The Pro-nuclear scale score was calculated by summing responses to all items on this scale. The Bipolar scale score was calculated by multiplying the score on the Pro-nuclear scale by -1, and summing this (negative) score with the score on the Anti-nuclear scale. An Intensity scale score could be calculated by summing responses to all 14 items, however measurement of "Intensity" was not used in this study because of low reliability (alpha = .56) reported by Werner & Roy (1985).

Scale development. The 14 items of the NAQ were drawn from a pool of 58 items tapping 29 behavioral domains used previously with abortion activists and revised to focus on nuclear weapons activism (Werner & Roy, 1985). A preliminary version of the NAQ was tested on 227 individuals in five different groups from the San Francisco Bay area. These groups included: (a) Peace activists (n = 51), some of whom participated either in a "peace vigil", or in "'peace and spirituality'" classes; (b) religious teachers (n = 51) who were selected from a group attending a meeting in the Catholic Diocese of the Bay area, whose purpose was to help them "teach the Catholic Bishops' Peace Pastoral letter to their students" (p. 182); (c) psychology graduate students (n = 45) enrolled in the California School of Professional Psychology in Berkeley, California; (d) Republican

party members (n = 42) "recruited at local Republican party meetings, and through word of mouth" (p. 182); and (e) defense industry workers (n = 38) recruited from a major California nuclear weapons research laboratory, and a commercial defense contractor. The mean sample age was 42.6 years, (S.D. = 15.9 years; range = 20 to 85 years). The sample was composed of 36.6% (n = 83) males, and 63.4% (n = 144) females.

Four scales were scored, and item-analyses were conducted to identify which items met criteria for "Non-zero variance, positive item-scale correlation with the full scale, and positive item-scale correlation with the appropriate unipolar scale" (p. 183), for inclusion in the final instrument. Items not meeting any of the criteria for inclusion were rejected, and corresponding items in the opposite direction were also rejected. Fifty items measuring 25 behavioral domains met criteria for inclusion. Coefficient alpha reliabilities at this stage of analysis were: (a) Bipolar scale, alpha = .95; (b) Anti-nuclear scale, alpha = .96; (c) Pro-nuclear scale, alpha = .85; and (d) Intensity scale, alpha = .90. The final 14 item NAQ was derived through additional item-analyses in which seven behavioral domains were selected based on the strength of their mean correlations with the 50-item bipolar scale.

Reliability of the NAQ. Werner and Roy (1985) reported the following reliability coefficients for the four scales of the 14-

item NAQ: (a) Bipolar scale, alpha = .91; (b) Anti-nuclear scale, alpha = .92; (c) Pro-nuclear scale, alpha = .83; and (d) Intensity scale, alpha = .56.

Validity of the NAQ. Analysis of variance (ANOVA) of mean scale scores for each group were conducted. Peace activists, religious teachers, and psychology students engaged in significantly more anti-nuclear activities than Republicans and defense workers. Republicans and defense workers engaged in significantly more pro-nuclear activities than peace activists, religious teachers, and psychology students.

Peace activists scored significantly higher than all other subjects on the Bipolar scale (M = 17.18, $S.D.$ = 4.23, $p \leq .0001$). No differences were found on Bipolar scale scores for religious teachers and psychology students (M = 12.29, $S.D.$ = 5.62; M = 12.02, $S.D.$ = 6.46, respectively) and Republicans and defense workers (M = -5.52, $S.D.$ = 6.68; M = -1.58, $S.D.$ = 9.19, respectively). Similar rankings and magnitudes were found on the Anti-nuclear scale, except for Republicans and defense workers reversing positions (M = 1.02, $S.D.$ = 2.82; M = 4.47, $S.D.$ = 6.33, respectively, $p \leq .0001$). Comparison of mean scores on the Pro-nuclear scale did not yield significant differences between (a) peace activists, religious teachers, and psychology students (M = 0.08, $S.D.$ = 0.44; M = 0.33, $S.D.$ = 1.18, M = 0.47, $S.D.$ = 1.83, respectively); and (b) Republicans and defense workers (M =

6.55, S.D. = 5.49; M = 6.05, S.D. = 4.58, respectively).

Peace activists scored significantly higher than all other subjects on the Bipolar scale (M = 17.18, S.D. = 4.23, $p \leq .0001$). No differences were found on Bipolar scale scores for religious teachers and psychology students (M = 12.29, S.D. = 5.62; M = 12.02, S.D. = 6.46, respectively) and Republicans and defense workers (M = -5.52, S.D. = 6.68; M = -1.58, S.D. = 9.19, respectively). Similar magnitudes were found on the Anti-nuclear scale, except for Republicans and defense workers reversing positions (M = 1.02, S.D. = 2.82; M = 4.47, S.D. = 6.33, respectively, $p \leq .0001$). Comparison of mean scores on the Pro-nuclear scale did not yield significant differences between (a) peace activists, religious teachers, and psychology students (M = 0.08, S.D. = 0.44; M = 0.33, S.D. = 1.18, M = 0.47, S.D. = 1.83, respectively); and (b) Republicans and defense workers (M = 6.55, S.D. = 5.49; M = 6.05, S.D. = 4.58, respectively).

Groups were ranked from "most 'anti-nuclear'" to "most 'pro-nuclear'": (a) peace activists, (b) religious teachers, (c) psychology students, (d) Republicans, and (e) defense workers. A rank order correlation of $r = .71$ ($p \leq .01$) was found for this ranking using mean Bipolar scale scores. A rank order correlation of $r = .69$ ($p \leq .01$) was found for this ranking using mean Anti-nuclear scale scores. A rank order correlation of $r = -.63$ ($p \leq .01$) was found for this ranking using mean Pro-nuclear scale scores. Rankings according to scores on the Intensity

scale were not reported.

Personal Attitudes and Beliefs

Items 15 through 21 of the survey instrument sampled a subject's personal attitudes, beliefs, and feelings towards nuclear weapons and prospects of nuclear war. Item 15 ("How concerned are you about the possibility of nuclear war?") was a measure of a subject's level of concern about nuclear war. Item 16 ("What percentage of the U.S. population would survive an all-out nuclear war?") was a measure of estimated destruction (in human terms) caused by nuclear war. Item 17 ("If there were an all-out nuclear war, would you want to survive it?") was a measure of a subject's desire to survive a nuclear war. Item 18 ("At what level do you support production of nuclear weapons by the United States?") was a measure of level of support of nuclear weapons production and an indicator of a subject's support for either a policy of "nuclear deterrence" or "nuclear freeze/disarmament". Item 19 ("Does the American public's direct involvement in the nuclear war issue increase/ have no effect/ or decrease the likelihood of nuclear war?") was a measure of the perceived efficacy of citizen involvement in affecting the nuclear arms race. Item 20 ("Do you believe that a nuclear war is likely to occur within the next 25 years?") was a measure of the perceived likelihood of nuclear war, and was an indication of the salience of nuclear war for subjects. Item 21 ("Do you

support the development of the space-based Strategic Defense Initiative (SDI)?") was a measure of support for the Strategic Defense Initiative (SDI) and was included in this study to explore the relationship between support for this new military strategy and endorsement of anti-nuclear weapons professional activism.

Items 15, 16, and 17 were drawn verbatim, and items 19 and 20 were modifications of items from the research of Polyson et al. (1988, 1986) who found these items to be significantly related ($p \leq .01$) to an APA member's support for increased advocacy by APA in nuclear weapons issues. Items 18 and 21 were derived from the research of Hamilton, Chavez, and Keilin (1986), and Hamilton, Knox, Keilin, and Chavez (1985) respectively. The variables tapped by each item were found to be significantly related ($p \leq .01$) to college students' cognitive and emotional responses to the threat of nuclear war in each study. All seven items in this section were included in the study to explore the extent to which personal attitudes and beliefs about nuclear weapons and nuclear war correlated with, and helped predict an APA member's level of endorsement of psychologists engaging in anti-nuclear weapons professional activities.

Scoring. Most items in this section were scored in the direction presented in the survey format. Item 17 required reversing alternatives 2 and 3 for scoring. By reversing the

order of alternatives 2 and 3, a continuous variable was artificially created that lent itself to correlation analysis. In the instrument, item 17 read:

17) "If there were an all-out nuclear war, would you want to survive it?

1. YES
2. NO
3. DON'T KNOW"

By reversing order for scoring, the alternatives were reordered as follows:

1. YES
2. DON'T KNOW
3. NO

All items in this section were treated as individual variables, and no scale scores applied.

Professional Involvement Scale

The Professional Involvement Scale (PIS) comprised items: 22, 23, 24, 25, 26, and 27. This scale was designed to address professional and ethical issues regarding social and political activism by psychologists related to nuclear weapons. Item 22 ("Psychologists should separate their roles as professionals from their roles as private citizens when addressing the issue of nuclear freeze/disarmament."), item 23 ("To speak out publicly as a psychologist (rather than as a private citizen) on the issue of

nuclear disarmament is an inappropriate use of the professional role."), and item 25 ("Promoting and protecting human welfare necessitates taking a stand as a psychologist in support of a nuclear freeze/disarmament.") were replicated from McConnell et al. (1986) in research with APA members. These items addressed professional and ethical issues related to nuclear weapons activism and were replicated in the present study to examine how well they correlated and predicted endorsement of anti-nuclear weapons activism by psychologists acting in their professional roles.

Item 24 ("Psychologists possess special knowledge and skills that justify speaking out in the public arena on issues concerning nuclear weapons and nuclear war") addressed the issue of whether political and social involvement by psychologists in the nuclear weapons issue is justified by the belief that psychologists possess special knowledge and skills relevant to nuclear weapons. This item was developed based on personal communication with Professor Manuel Davenport (5/12/88) of the Department of Philosophy at Texas A&M University who possesses knowledge and expertise in the area of professional ethics and ethical philosophy. Item 26 ("Preserving scientific objectivity necessitates refraining as a psychologist from activities designed to influence public policy concerning nuclear weapons") was derived from a review of the Ethical Principles of Psychologists (APA, 1981), personal communication with Professor

Manuel Davenport (5/12/88), and issues raised by Hatch (1982) about the role of psychology as a science in relation to prevailing community and national standards on sensitive social and political issues. Item 27 ("The American Psychological Association ought to use its status as a scientific and professional organization to help influence public opinion and public policy regarding nuclear weapons") was derived from the research of Polyson, Stein, and Sholley (1986, 1988). This item measured an APA member's attitude towards the political role of APA regarding nuclear weapons issues.

Scoring. Each item in the PIS was Likert scaled with a value range from "1" (strongly disagree) to "5" (strongly agree). Individual items were scored according to the value marked by the respondent. To derive a scale score for the PIS, items 22, 23, and 26 required reversed scoring. Based on content analysis, items 22, 23, and 26 were hypothesized to have negative correlations with items 24, 25, 27. In cases where scoring was reversed, a value of "1" assumed a value of "5", "2" a value of "4", "3" a value of "3", "4" a value of "2", and "5" a value of "1".

Item intercorrelations and scale reliability. The hypothesized negative relationship between the items 22, 23, and 26, and items 24, 25, 27 was confirmed through examination of item intercorrelations in which items 22, 23, and 26 (when scored

in the forward direction) were found to have moderately strong negative correlations with items 24, 25, and 27 (range: $r = -.51$ to $r = -.63$, $p \leq .001$).

The procedure Reliability (SPSS Inc., 1986) was used to conduct a reliability study of the scale PIS with data obtained during a pilot-test of the survey instrument (discussed later in this chapter), and during analysis of sample data. Using reversed scoring procedures for items 22, 23, and 26 with pre-test data, the PIS achieved a high internal consistency reliability (alpha = .92). The internal consistency reliability of the PIS using the procedure Reliability (SPSS Inc., 1986) achieved through analysis of sample data was similarly high (alpha = .90). Thus, the PIS had a very high degree of stability when measured across two samples of subjects in the field of psychology.

Anti-Nuclear Weapons Professional Activities Scale

The Anti-Nuclear Weapons Professional Activities Scale (ANPAS) comprised items 28 through 43. The ANPAS was the prime criterion measure used in this study. ANPAS presented 16 anti-nuclear weapons activities that psychologists might engage in while identifying themselves as professionals. Each item in the ANPAS was Likert scaled from "1" (strongly disapprove) to "5" (strongly approve). Each subject was asked to indicate how strongly he or she disapproved or approved of psychologists,

acting in their professional roles, engaging in each activity listed in the scale. Items included in this scale were derived from several sources. Item 29 ("Write a college textbook on the psychological aspects of war, peace, and nuclear weapons"), item 30 ("Lead awareness groups that focus on member concerns about war, peace, and nuclear weapons"), item 33 ("Write a letter to the editor of a newspaper, magazine, or other publication advocating against nuclear weapons"), item 37 ("Discuss client concerns about nuclear war in therapy if client initiated discussion"), item 41, ("Conduct research into the mental health implications of nuclear war and the threat of nuclear war"), and item 42 ("Present current research findings on war, peace, and nuclear weapons to peace groups"), were derived from Duncan and McConnell (Blueprint, 1987). Item 28 ("Encourage teaching about nuclear war in primary and secondary schools") was derived from Childers (1985) and Nair (1987). Item 36 ("Attempt to persuade a political leader through letters, phone calls, or personal meetings to support an anti-nuclear weapons position") was derived from Childers (1985). Item 43 ("Conduct research into factors that influence the decisions and actions of nuclear policy-makers") was derived from Tetlock (1986). Item 34 ("Distribute anti-nuclear weapons literature or petition at one's place of employment") was derived from Tinker & Eckhardt (1985). Item 31 ("Be a paid or volunteer consultant to a peace group") was derived from M. Pilisuk (personal communication, 9/28/88).

Item 39 ("Run for political office as a psychologist advocating a nuclear freeze or disarmament") was derived from Dr. Donna Davenport (personal communication, 3/8/88). The following items were derived from informal communications with graduate students in the department of Educational Psychology at Texas A&M University: Item 32 ("Encourage students in your class to debate various strategies for preventing nuclear war"), item 35 ("Conduct research into factors most effective to promoting an anti-nuclear weapons public policy"), item 38 ("Encourage concerned therapy client to discuss feelings about nuclear war with family and friends"), and item 40 ("Encourage students in your class to become active in working for peace").

ANPAS yielded a single full scale (FS) score and four subscale scores. FS was composed of all 16 items, and represented level of endorsement of overall anti-nuclear weapons related activities. Each subscale score referred to a different realm of professional activity based on logical a-priori categorization based on content. The Education (ED) related subscale was composed of items: 28, 29, 32, and 40; the Research (RS) related subscale was composed of items: 35, 41, 42, and 43; the Applied Practice (AP) related subscale was composed of items: 30, 31, 37, and 38; and the Political Activities (POL) related subscale was composed of items 31, 33, 34, 36, 39, and 42. The subscale POL contained two items that overlapped with other subscales. Item 31 overlapped with subscale AP, and item 42 overlapped with

subscale RS. ANPAS was composed of items sampling a range of activities, yet was felt to be sufficiently conservative in size to not discourage subjects from responding.

Scoring. Each item was scored according to the value endorsed by each subject. The full scale score (FS) was obtained by summing the scores of all 16 items in the ANPAS, and subscale scores were obtained by summing the scores of items belonging to their respective subscales. In this way, each subject could have a full scale (FS) score, four subscale scores, and individual scores for each item.

Reliability and scale development. Two reliability studies were conducted with ANPAS. A preliminary 20 item version of ANPAS was subjected to reliability analysis using data obtained during a pilot-test of the survey instrument (discussed later in this chapter) with the procedure Reliability (SPSS Inc., 1986). The pilot-test reliability study yielded a very high (alpha = .95) internal consistency reliability coefficient. Seven items were dropped from the preliminary version of ANPAS and three new items were added after pilot-testing. Six items were deleted from ANPAS because of similarity of content to other items in ANPAS, and because it was logically determined that deletion did not significantly affect scores on the ANPAS scales. One item was deleted because pilot-test subjects commented about ambiguity in this item's meaning, and very low item-total

correlation. Two new items were added to the subscale RS, and one new item was added to the subscale AP. This was done in an effort to broaden the content of each subscale, and provide a minimum of four items for each subscale of ANPAS.

The final version of ANPAS consisted of 16 items. A reliability analysis using sample data with the procedure Reliability (SPSS Inc., 1986) yielded a slightly lower, but still very high (alpha = .91) internal consistency reliability coefficient. The slightly lower reliability statistic for scale FS using sample data can be accounted for in two ways: (a) the smaller number of items contained in the final version of ANPAS, and (b) the retention of two items that, despite having lower item-total correlations with FS, possessed content that provided a broader sampling of activities.

Reliability statistics obtained for the ANPAS subscales using the procedure Reliability (SPSS Inc., 1986) were as follows: ED (alpha = .70), RS (alpha = .81), AP (alpha = .65), POL (alpha = .89). Subscale correlations with the scale FS were very high (ranging: $r = .77$ to $r = .92$, $p \leq .001$), and subscale intercorrelations yielded moderate to moderately high coefficients (range $r = .57$ to $r = .69$, $p \leq .001$).

Other Societal Issues

The items (items 44 through 50) in this part of the instrument sampled a subject's attitude towards social and

political involvement by psychologists regarding several different societal issues, including nuclear weapons. The purpose of this part of the instrument was to help place the issue of "nuclear weapons" into perspective relative to other social and political issues.

Item 44 ("Psychologists possess special knowledge and skills that enable them to speak out on important social and political issues in the public arena") and item 45 ("The American Psychological Association ought to use its status as a scientific and professional organization to help influence public opinion and public policy regarding important social and political issues") employed a 5-point Likert scale in which "1" represented "strongly disagree", and "5" represented "strongly agree".

Subject's were also asked to rate on a 5-point Likert scale, how important he or she believed each of five issues were for psychologists to attempt to influence public policy and public opinion while acting in their professional roles. The Likert scale ranged from "1" ("not important") to "5" ("extremely important"). The issues subjects were asked to rate were: abortion (item 46), AIDS (item 47), discrimination (item 48), nuclear war (item 49), and pornography (item 50).

Scoring. Each item in this section was scored in the direction set in the item format. Each item was treated individually and no scale was formed.

Demographics

Demographic items comprised items 51 through 57. Subjects were asked to identify themselves by gender, race, age, marital status, professional orientation (based on the scientist-practitioner continuum used in psychology), theoretical orientation, and political affiliation.

Instrument Pilot-test

A preliminary version of the total instrument titled Anti-Nuclear Weapons Professional Activism Scale (ANPAS) was distributed non-randomly to doctoral level graduate students (n = 50) in the Department of Educational Psychology at Texas A&M University on June 21, 1988. All subjects were asked to return within 1 week their completed questionnaires with comments about wording, instrument structure, and other areas felt to be problematic. A total of 31 completed surveys were received within the specified time limits. All returns were usable for instrument evaluation. Comments regarding the questionnaire were helpful in making modifications and streamlining the instrument for data collection with the sample targeted for this study. The effective response rate for the pilot-test was 62%.

Statistical analyses on the pilot-test data were performed using Statistical Analysis System (SAS Institute, 1985) Statistical Package for Social Sciences, Version X (SPSS Inc.,

1986), ANOVAMS.C (unpublished), and Sheffe.PR (unpublished). An intercorrelation matrix using Proc Corr (SAS Institute, 1985) was conducted to help the researcher determine which items could be deleted to reduce size, and increase chances for a high response rate from the target sample. Ten items were dropped and three new items were added. Three items were dropped because they did not significantly correlate with the criterion measure (ANPAS). As mentioned in the discussion about the reliability and scale development of ANPAS, seven items were dropped from the preliminary ANPAS and three new items added after pilot-testing.

Internal consistency reliability analyses using the procedure Reliability (SPSS Inc., 1986) were conducted on the PIS and the preliminary version of ANPAS. Both scales were found to have high internal consistency reliability coefficient alphas (PIS, alpha = .92; and ANPAS, alpha = .95), thereby establishing the stability of these two scales. Examination of the intercorrelation matrix demonstrated that the logical categorization of items into the subscales of ANPAS was generally confirmed.

Data Collection Procedure

The procedure for data collection followed the format for mail surveys delineated by Dillman (1978), with minor modifications. The instrument (see Appendix A) was mailed to all subjects with a cover letter describing the nature and purpose of

the study (see Appendix B), and a stamped self-addressed return envelope was enclosed. Issues of confidentiality of responses were addressed. Each survey had a code number printed in the upper right hand corner which was used for follow-up mailing purposes only. In this way responses were not paired with individual subjects and the confidentiality of respondents was preserved. Subjects who desired to receive a copy of the results were asked to indicate their interest by placing their name and address on the back of the return envelope with the statement "results requested".

In addition, an incentive (Dillman, 1978) was provided with the initial mailing in anticipation of maximizing the response rate. A separate form was enclosed in the initial mailing providing each subject with the opportunity to participate in a drawing for a gift subscription to a professional journal of their choice (see Appendix C). Subjects were informed that three individuals would be randomly selected to receive this gift. At the close of the data collection, three individuals were randomly selected and subscriptions were purchased by the researcher. Recipients were notified by postcard.

Approximately 2-1/2 weeks after the initial mailing, a follow-up survey, cover letter (see Appendix D), and stamped return envelope were mailed to individuals whose responses had not yet been received. A final survey, cover letter (see

Appendix E), and stamped return envelope were mailed to non-responders approximately 2-1/2 weeks after the first follow-up mailing.

Missing Data and Double-Marked Responses

Missing data and double marked responses were handled in the following manner. If there was a missing response to a question employing a Likert scale, the missing response was assigned a "3", or neutral response. This was based on the reasoning that missing values would not provide comparable meaning of scale scores across responders. Therefore, assigning a neutral value to a missing response was expected to preserve the integrity of scale scores and provide consistency across item clusters forming scales such as the PIS and ANPAS. If a response was missing for an item on the NAQ (Werner & Roy, 1985), the missing response was treated as a "0" value.

Missing responses for any non-Likert scaled items (items 15 through 21, and items 51 through 57) were treated as non-responses and not included in the data analysis. Double responses to Likert scaled items were scored according to the response closest to the center of the scale. Double responses to non-Likert scale items were treated as missing data. Surveys containing 6 (10%) or more missing and/or double responses were not utilized in data analysis.

Analysis of Data

Data analyses were accomplished using the Statistical Analysis System (SAS Institute, 1985), Number Cruncher Statistical System (Hintze, 1985), Statistical Package for the Social Sciences, Version X (SPSS Inc., 1986), and two unpublished programs designed for use with the Commodore personal computer, ANOVAMS.C and SHEFFE.PR. The statistical procedures used for data analysis are discussed below.

For the purpose of investigating research questions #3 and #4, scale FS of ANPAS (the measure of endorsement of general professional activity) was considered the primary criterion measure. Subscales ED, RS, AP, and POL of ANPAS were considered secondary criterion measures. Predictor variables were those variables relating to: frequency of nuclear weapons activities (AN, PRO, BI), personal attitudes and beliefs concerning nuclear weapons and the likelihood of nuclear war (Q15 to Q21), professional issues relating to anti-nuclear weapons activism (Q22 to Q27), and demographics (Q51 to Q57).

Reliability Study of Scales PIS and ANPAS

The procedure Reliability (SPSS Inc., 1986) was used to conduct reliability analyses on the scales PIS and ANPAS during the pilot-test and data collection phases of this study. This procedure calculated Cronbach alpha reliability coefficients for each scale of interest.

Descriptive Characteristics of the Respondents

The mean ages, and standard deviations of male and female respondents were calculated using PROC MEANS (SAS Institute, 1985). Frequencies of occurrence, and percentages, for other demographic variables were calculated using PROC FREQ (SAS Institute, 1985).

Respondent, Non-respondent, and APA Membership Comparisons

Gender comparisons. Gender characteristics of respondents were available from survey questionnaire responses. Gender characteristics of non-respondents were obtained from the APA Membership Register (1988) by manually counting the number of female first names and male first names of non-responders. The APA Membership Register provided statistics on the gender composition of doctoral level members (p. vii). A chi-square analysis using gender frequency was hand calculated to test for representativeness (goodness of fit) of the APA.

Geographic comparisons. Prior to data collection, a master mailing list was prepared which listed the residential or business address of each subject. After data collection was completed, the mailing address (by state) of each respondent and non-respondent was manually recorded. Frequencies by state were manually tallied for respondents and non-respondents. States were grouped into nine geographic regions according to U.S.

Census groupings (U.S. Census Bureau, 1980) shown below:

1. New England: Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut.

2. Mid- Atlantic: New York, New Jersey, Pennsylvania.

3. East North Central: Ohio, Indiana, Illinois, Michigan, Wisconsin.

4. West North Central: Minnesota, Iowa, Missouri, North Dakota, South Dakota, Nebraska, Kansas.

5. South Atlantic: Delaware, Maryland, District of Columbia, Virginia, West Virginia, North Carolina, South Carolina, Georgia, Florida.

6. East South Central: Kentucky, Tennessee, Alabama, Mississippi.

7. West South Central: Arkansas, Louisiana, Oklahoma, Texas.

8. Mountain: Montana, Idaho, Wyoming, Colorado, New Mexico, Arizona, Utah, Nevada.

9. Pacific: Washington, Oregon, California, Alaska, Hawaii.

After states were grouped by region, frequencies and percentages of respondents and non-respondents were manually calculated for each region.

The geographic distribution of the APA membership was provided in the APA Membership Register (1988, p. vii). Geographic distribution statistics in the membership register

included the Associate (pre-doctoral level membership) category in the aggregate data, and it was not possible to partial out Associates for this analysis. The procedure used for obtaining frequencies of membership by geographic region for the APA membership was the same as the procedures used for respondents and non-respondents. A chi-square test for representativeness (goodness of fit) was hand calculated for the geographic distributions of respondents and non-respondents.

Mean years of APA membership comparison. It was not possible to compare all three groups (respondents, non-respondents, and the APA membership) on the same variable due to limitations of available data resources. Data concerning the ages of non-respondents was not available in the APA Membership Register (1988), and data concerning the mean number of years members held membership in the APA was not available from APA (G. Pion, personal communication, June 15, 1988). Respondents and non-respondents were compared on the mean number of years each group held membership in the APA. Respondents and the APA membership were compared on the mean age of each group.

The number of years a subject was a member of APA was obtained by subtracting the date of membership listed in the APA Membership Register (1988) from 1988 (the year this study was conducted). The procedure T-Test (Hintze, 1985) was used to calculate a two-tailed t-test for significant ($p \leq .05$) differences between the two groups.

Mean age comparison. Age data for respondents were obtained from survey responses. The mean age and standard deviation for respondents was computed using PROC MEANS (SAS Institute, 1985). The most current information regarding age for the APA membership was available for the year 1985, which was obtained from the Statistical Profile of APA Members: 1985 (Pion, 1985).

The mean age of the APA membership was calculated manually using a formula that accounted for the ages of both categories of doctoral level membership in APA (Members and Fellows). To calculate the mean age of doctoral level members, the product of the number of Members (n1 = 47,888) by the mean age of Members (m1 = 46.08 yrs) was summed with the product of the number of Fellows (n2 = 3,713) by the mean age of Fellows (m2 = 60.20 yrs). This sum was divided by the sum of the number of Members (n1) and number of Fellows (n2). A test for significant difference was not conducted because additional information was lacking.

Two potential limitations concerning age data for the APA membership require attention. First, age data from 1985 may not reflect accurately upon the 1988 membership. It was suggested however, that any changes in the age composition of the APA membership since 1985 is likely to be insignificant (G. Pion, personal communication, June 15, 1988). Second, the available information concerning age was aggregated to include members from the U.S., U.S. possessions, and foreign countries. It was not

possible to partial out data for members from U.S. possessions and foreign countries.

Research question #1: How important do psychologists believe it is to publicly speak out on the issue of nuclear weapons compared to other societal issues?

Frequencies of response and response percentages to these items were calculated using PROC FREQ (SAS Institute, 1985). Mean item scores and standard deviations were calculated using PROC MEANS (SAS Institute, 1985). Analysis of variance using the procedure ANOVAMS.C (unpublished) was conducted to test for significant differences between the mean importance ratings of the five issues sampled. ANOVAMS.C used information concerning sample size, mean scores, and standard deviations to calculate an F-ratio. The procedure SHEFFE.PR (unpublished) was used to conduct post-hoc comparisons. SHEFFE.PR used information concerning sample size, mean, degrees of freedom of error term, and error mean square to conduct comparisons and identify where significant differences existed.

Research question # 2: How do full members of the American Psychological Association (APA) compare to other groups in terms of nuclear weapons activism?

Mean scores and standard deviations for the target sample and pilot-test groups on the Bi-Polar Activism, Anti-Nuclear

Activism, and Pro-Nuclear Activism scales of the Nuclear Activism Questionnaire (Werner & Roy, 1985) were computed using PROC MEANS (SAS Institute, 1985).

Analysis of Variance was conducted using the procedure ANOVAMS.C (unpublished) to test for significant differences between survey respondents, pilot-test subjects, and groups used in the Werner and Roy (1985) study. A post-hoc analysis using the procedure SHEFFE.PR (unpublished) was conducted to investigate where significant group differences lie on the Bi-Polar, Anti-Nuclear, and Pro-Nuclear activism scales of the NAQ.

Research question #3: Do areas of consensus exist among APA members concerning the acceptability of professional activities related to the controversial issue of anti-nuclear weapons advocacy?

Mean scores and standard deviations of each item of ANPAS were calculated using PROC MEANS (SAS Institute, 1985) to investigate the mean rating of approval and extent of spread that existed for each activity presented in ANPAS. Frequencies of response and response percentages for each item of ANPAS were calculated using PROC FREQ (SAS Institute, 1985) to investigate the proportion of respondents who disapproved, remained neutral, and approved of each activity presented in ANPAS .

Research question #4: Where consensus does not exist among APA members concerning activities related to anti-nuclear weapons advocacy, can differences be described and explained by variables related to personal activism, personal attitudes and beliefs, professional issues, and demographics?

To investigate variables that related to differences among respondents regarding approval of professional anti-nuclear weapons activities (scales FS, ED, RS, AP, and POL) several statistical techniques were employed. For predictor variables that were interval in nature, Pearson r correlation coefficients were computed using PROC CORR (SAS Institute, 1985). Predictor variables that were categorical in nature (selected demographics) were analyzed using the procedure ANOVA (Hintze, 1985). A Fisher LSD (Hintze, 1985) comparison, which is exact for unequal sized groups, was conducted to identify statistically significant differences.

The procedure Regression (Hintze, 1985) computed multiple correlation and multiple regression coefficients for variables combined with one another, to investigate the strength and direction of relationship between selected groups of predictor variables and scale FS. The procedure Regression (Hintze, 1985) was used to compute an overall multiple regression coefficient for predictor variables (combined) determined to have a theoretically and/or statistically significant individual

relationship with scale FS.

Correlations and multiple correlations with subscales ED, RS, AP, AND POL. Correlations of predictor variables with each subscale of ANPAS (ED, RS, AP, and POL) were conducted to investigate the relationships between predictor variables and secondary criterion variables using PROC CORR (SAS Institute, 1985). Multiple correlations of each category of predictor variable (personal activism, personal attitudes and beliefs about nuclear weapons, professional issues, and demographics) with each subscale were computed using the procedure Regression (Hintze, 1985).

Supplementary Analyses

Supplementary analyses were conducted to provide additional descriptive information about respondents' personal attitudes and beliefs regarding nuclear weapons and the likelihood of nuclear war, and respondents' opinions concerning issues related to professional anti-nuclear weapons advocacy. Frequencies and response percentages to items sampling personal attitudes and beliefs about nuclear weapons and the likelihood of nuclear war (Q15 to Q21) were calculated using PROC FREQ (SAS Institute, 1985). Frequencies and response percentages for items sampling professional issues (Q22 to Q27) were calculated using PROC FREQ (SAS Institute, 1985). Means scores and standard deviations for

items sampling professional issues were calculated using PROC MEANS (SAS Institute, 1985).

Pre-determined Level of Statistical Significance

The level that was pre-selected to determine if findings were statistically significant was alpha = .05.

CHAPTER IV

RESULTS

The role of the profession of psychology regarding important societal issues has been raised in the professional literature. There appears to be a lack of consensus regarding whether it is acceptable for psychologists to become professionally active and advocate particular positions on important societal issues, or whether psychologists should remain neutral and not engage in societal advocacy at the professional level. The major purposes of this research were to: (a) examine how doctoral level members of the APA compared to other groups in terms of nuclear weapons activism; (b) explore the extent to which consensus existed among doctoral level members of the APA concerning the acceptability of professional activism in a controversial societal issue, specifically anti-nuclear weapons advocacy; and (c) examine factors that help to explain differences where consensus was not found.

Four hundred doctoral level members of the APA were mailed survey questionnaires. Of this sample, 262 surveys acceptable for analysis were received. The data were analyzed with the assistance of: the Statistical Analysis System (SAS Institute, 1985), Statistical Package for Social Sciences, Version-X (SPSS Inc, 1986), Number Cruncher Statistical System (Hintze, 1985), and ANOVAMS.C (unpublished) and Sheffe.PR (unpublished).

The findings of this research are presented in seven sections. The sections are as follows:

1. Descriptive characteristics of respondents.
2. Respondents, non-respondents, and APA membership comparisons.
3. Research Question #1.
4. Research question #2.
5. Research question #3.
6. Research question #4.
7. Supplementary descriptive analyses.

Due to the large number of variables examined, it was necessary to develop a variable coding system. A list of variable codings used in data presentation is provided in Table 1.

Descriptive Characteristics of the Respondents

The respondent group consisted of 109 (41.6%) female and 153 (58.4%) male respondents. The average age of respondents was 46.17 years, with a standard deviation of 11.05 years, and a range of 30 to 81 years. The mean age for female respondents was 42.99 years with a standard deviation of 9.53 years. The mean age for male respondents was 48.40 years, with a standard deviation of 11.52 years. Additional descriptive characteristics of the respondents are presented in Table 2.

Table 1

Codes for Variables Used in Study of Psychologists' Opinions about Anti-Nuclear Weapons Activism

Code	Variable
BI	Bi-Nuclear Activism score
AN	Anti-Nuclear Activism score
PRO	Pro-Nuclear Activism score
Q15	Concern about the possibility of nuclear war
Q16	Estimate of human destruction
Q17	Desire to survive a nuclear war
Q18	Support level of nuclear weapons production
Q19	Efficacy of citizen involvement
Q20	Likelihood of nuclear war
Q21	Support for SDI
Q22	Role separation nuclear freeze/disarmament
Q23	Publicly speaking out as a psychologist on nuclear war
Q24	Competence to speak out on nuclear war issues
Q25	Imperative to protect human welfare
Q26	Maintaining scientific objectivity
Q27	APA advocacy on issue of nuclear war
PIS	Professional Involvement Scale score (items 22-27)
Q28	Encourage teaching about nuclear war in primary and secondary schools
Q29	Write college textbook on psychological aspects of war, peace, and nuclear weapons
Q30	Lead awareness groups that focus on member concerns about war, peace and nuclear weapons
Q31	Be a paid or volunteer consultant to a peace group
Q32	Encourage students in your class to debate various strategies to prevent nuclear war
Q33	Write to the editor of a publication advocating against nuclear weapons
Q34	Distribute anti-nuclear weapons literature or petition at place of employment
Q35	Conduct research into factors most effective to promoting an anti-nuclear weapons public policy
Q36	Attempt to persuade a political leader through letters, phone calls, or personal meetings to support an anti-nuclear weapons position

(table continues)

Table 1, Continued

Code	Variable
Q37	Discuss client concerns about nuclear war in therapy, if client initiates discussion
Q38	Encourage concerned therapy client to discuss feelings about nuclear war with family and friends
Q39	Run for political office as a psychologist
Q40	Encourage students to become active working for peace
Q41	Conduct research into mental health implications of nuclear war and threat of nuclear war
Q42	Present current research findings on war, peace, and nuclear weapons to peace groups
Q43	Conduct research into factors that influence the decisions and actions of nuclear policy makers
FS	Full scale ANPAS score
ED	Education-related subscale score of ANPAS
RS	Research-related subscale score of ANPAS
AP	Applied practice-related subscale score of ANPAS
POL	Political activity-related subscale score of ANPAS
Q44	Psychologists competence to speak out on important issues
Q45	APA influence on important societal issues
Q46	Opinion on importance of abortion issue
Q47	Opinion on importance of AIDS issue
Q48	Opinion on importance of Discrimination issue
Q49	Opinion on importance of nuclear war issue
Q50	Opinion on importance of pornography issue
GEN	Gender
RACE	Race
AGE	Age
MAR	Marital status
PO	Professional orientation
TO	Theoretical orientation
PA	Political affiliation

Table 2

Biographical Characteristics of Respondents

Variable	Freq	%
Gender[a]		
Female	109	41.6
Male	153	58.4
Race[b]		
Black	6	2.3
Caucasian	238	91.5
Hispanic	5	1.9
Native American	5	1.9
Other	6	2.3
Age (years)[c]		
30-39	81	31.3
40-49	98	37.8
50-59	48	18.4
60 +	32	12.1
Marital Status[c]		
Married	197	76.1
Divorced	26	10.0
Separated	2	0.8
Widowed	6	2.3
Never Married	28	10.8
Professional Orientation[b]		
Scientist	47	18.1
Scientist/Practitioner	54	20.8
Practitioner	159	61.1

(table continues)

Table 2, Continued

Variable	Freq	%
Theoretical Orientation[b]		
Behavioral/Cognitive	86	33.1
Psychodynamic/Freudian	41	15.8
Existential/Humanistic	23	8.8
Eclectic	82	31.5
Other	28	10.8
Political Affiliation[d]		
Democrat	161	61.7
Republican	33	12.6
Independent	64	24.5
Other	3	1.1

Note. [a] $n = 262$, [b] $n = 260$, [c] $n = 259$, [d] $n = 261$.

Respondent, Non-respondent, and APA Membership Comparisons

Respondents were compared with non-respondents and the general membership of the APA on several demographic variables to assess how representative survey respondents were of the APA membership. The following demographics were used for comparisons: gender, geographic distribution by region of the United States, years of membership in the APA (respondents and APA membership), and mean age (respondents and non-respondents).

Gender comparisons. The analysis of gender representation (see Table 3) indicated that females were statistically overrepresented in the respondent group compared to the APA

membership group [$\underline{X}^2$ (.05,1) = 4.99]. The gender composition of the non-respondent group was nearly identical to the gender composition of the APA membership group. The data indicated that the respondent group was composed of approximately 6% more females and 6% fewer males in comparison to females and males comprising the APA membership and non-respondent groups.

Geographic Comparisons. Examination of data (see Table 4) regarding the geographic distribution of respondents, non-respondents, and the APA membership revealed that the geographic distribution of respondents was not different from the APA membership group in a statistically significant way, and non-respondents did not significantly differ from the APA membership. This finding suggested that the geographic distribution of respondents and non-respondents was comparable to the APA membership.

Table 3

Comparison of Respondents, Non-Respondents, and APA Membership (Combined Members and Fellows) by Gender

Group	Female Freq.	Female %	Male Freq.	Male %	Total Freq.	Total %
Respondents*	109	41.60	153	58.40	262	100
Non-Respondents	46	35.66	83	64.34	129	100
APA Membership	20,595	35.12	38,054	64.88	58,649	100

* χ^2 (.05,1) = 4.99.

Table 4

Distribution of Respondents, Non-Respondents, and APA Membership by Geographic Region

Region	Respondents[a] Freq.	Respondents[a] %	Non-Respondents[b] Freq.	Non-Respondents[b] %	APA Membership Freq.	APA Membership %
New England	20	7.63	6	4.65	5,852	9.04
Mid Atlantic	50	19.08	30	23.26	14,431	22.29
E. North Central	39	14.88	21	16.28	9,258	14.30
W. North Central	17	6.48	4	3.10	3,718	5.74
South Atlantic	48	18.32	16	12.40	10,206	15.76
E. South Central	14	5.34	3	2.32	2,095	3.24
W. South Central	10	3.81	11	8.53	4,077	6.30
Mountain	17	6.48	3	2.32	3,395	5.24
Pacific	47	17.90	35	27.13	11,713	18.09
Total	262	99.95	129	99.99	64,745	100.00

a χ^2 (.05,8) = 9.06; do not reject H_0.

b χ^2 (.05,8) = 10.97; do not reject H_0.

Years of APA membership comparison. No significant difference was found between respondents and non-respondents for mean number of years of membership in APA. The data for mean years of membership in APA is presented in Table 5.

Table 5

Years of Membership in APA for Respondents and Non-Respondents

	Respondents (n = 262)		Non-Respondents (n = 129)		
Category	M	SD	M	SD	t
Yrs. Membership	11.00	9.89	12.91	8.98	-.62

$p > .05$

Mean age comparisons. Visual inspection of Table 6 suggested that no practical difference was found to exist between the mean age of respondents and the mean age of the APA membership in 1985.

Table 6

Mean Age (in years) of Respondents and 1985 APA Membership

Category	Freq.	Mean
Respondents	262	46.17 yrs.
APA Membership (1985)	51,601	47.10 yrs.

Research Question #1: How Important Do Psychologists Believe It Is to Publicly Speak Out on the Issue of Nuclear Weapons Compared to Other Societal Issues?

Two items (Q44, Q45) elicited respondents' opinions concerning the role of psychologists and the APA regarding speaking out publicly on important societal issues (see Table 7). For the convenience of the reader response categories "1" and "2" were combined to represent "disagreement, and response categories "4" and "5" were combined to represent "agreement". Response category "3" was designated a "neutral" response. Regarding the statement "Psychologists possess special knowledge and skills that enable them to speak out on important social and political issues in the public arena," 2 1/2 times as many respondents agreed as disagreed, and 3 times as many respondents agreed as remained neutral.

Regarding the statement "The American Psychological Association ought to use its status as a scientific and

professional organization to help influence public opinion and public policy regarding important social and political issues," 2 1/2 times as many respondents agreed as disagreed.

Table 7

Frequencies, Percentages, Means, and Standard Deviations of Respondents Regarding Important Societal Issues

(N=262)

	Response							
	Disagree 1 - 2		3		Agree 4 - 5			
Variable	f	%	f	%	f	%	M	SD
Q44	59	(22.5)	50	(19.1)	153	(58.4)	3.48	1.20
Q45	68	(26.0)	51	(19.5)	142	(54.4)	3.36	1.36

Note. (Q44) = "Psychologists possess special knowledge and skills that enable them to speak out on important social and political issues in the public arena". (Q45) = "APA should use its status as a scientific and professional organization to help influence public opinion and public policy regarding important social and political issues".

The data suggested that while a majority of respondents agreed that psychologists possess special knowledge and skill, and that the APA ought to use its status to help influence public opinion and public policy regarding important social and political issues, consensus of opinion was not unanimous.

Respondents were asked to rate on a 5-point Likert scale several societal issues on how important each issue was for psychologists to publicly speak out on. Table 8 presents frequencies of response, percentages mean ratings of importance, and standard deviation for each issue, ranked according to mean rating of importance. Analysis of variance [$F(4,305) = 28.951$, $p \leq .05$] revealed that significant differences were found between issues. Sheffe post-hoc pairwise comparisons indicated no significant differences between discrimination and AIDS, and no significant differences between pornography, nuclear war, and abortion; however discrimination was found to significantly differ from pornography, nuclear war, and abortion ($F = 10.01$, $F = 12.93$, $F = 19.45$, respectively, $p \leq .05$), and AIDS was also found to significantly differ from pornography, nuclear war, and abortion ($F = 5.75$, $F = 8.00$, $F = 13.27$, respectively, $p \leq .05$).

Table 8

Frequencies, Percentages, Means, and Standard Deviation of Respondents Regarding Important Societal Issues, Ranked by Mean Score

(N = 262)

Variable	Not Important 1		2		3		4		Extremely Important 5			
	f	%	f	%	f	%	f	%	f	%	M[a]	SD
Discrimination	14	(5.3)	7	(2.3)	24	(9.2)	64	(24.4)	153	(58.4)	4.28	1.09
AIDS	17	(6.5)	8	(3.1)	32	(12.2)	75	(28.6)	130	(49.6)	4.12	1.15
Pornography	25	(9.5)	19	(7.3)	59	(22.5)	86	(32.8)	73	(27.9)	3.62	1.23
Nuclear War	30	(11.5)	21	(8.0)	64	(24.4)	74	(28.2)	73	(27.9)	3.53	1.29
Abortion	34	(13.0)	14	(5.3)	72	(27.5)	77	(29.4)	65	(24.8)	3.36	1.20

[a] $F(4,304) = 28.951$, $p \leq .05$

Examination of frequencies of response revealed that when response categories "4" and "5" were combined to represent a rating of "important", discrimination was rated important by 217 (82.8%), and AIDS was rated important by 205 (78.2%), whereas pornography, nuclear war, and abortion were rated importrant by significantly fewer respondents [159 (60.7%), 147 (56.1%), and 139 (54.2%) respectively]. Nuclear war, along with pornography and abortion were issues in which respondents were most clearly divided in terms of importance for psychologists to publicly speak out on.

Research Question # 2: How Do Full Members of the American Psychological Association (APA) Compare to Other Groups In Terms of Nuclear Weapons Activism?

APA members and psychology students (TAMU). Examination of mean levels of nuclear weapons activity reported by APA respondents and the pilot-study group [doctoral level psychology students Texas A&M University (TAMU)], on the Nuclear Activism Questionnaire (NAQ) indicated that both groups have engaged in anti-nuclear weapons and pro-nuclear weapons activities within the 4 years prior to participating in this study (see Table 9). Examination of the data indicates that APA respondents and psychology students (TAMU) had higher mean activity levels for anti-nuclear weapons activities than pro-nuclear weapons

Table 9

Group Mean Frequencies and Standard Deviations on Nuclear Activism Questionnaire (NAQ)[t]

Group	(N)	Bi-Polar activism M	Bi-Polar activism SD	Anti-nuclear activism M	Anti-nuclear activism SD	Pro-nuclear activism M	Pro-nuclear activism SD
APA Respondents	(262)	5.20	6.53	5.91	5.52	0.71	2.27
Psychology students (TAMU)	(30)	2.61	5.00	3.90	3.60	1.35	2.86

[t] table adapted from Werner & Roy (1985).

activities. This finding suggested that APA respondents and psychology students (TAMU) were slightly to moderately more inclined to engage in activities against nuclear weapons than activities in support of nuclear weapons. Differences between APA respondents and psychology students (TAMU) however, on three measures of nuclear weapons activities were found to be non-significant (see Table 13, p. 143). This finding suggested that APA respondents and psychology students (TAMU) were not significantly different ($p \geq .05$) in the extent of their reported anti-nuclear weapons and pro-nuclear weapons activities within the preceding 4 years. Data also suggested that these two groups were not significantly different ($p \geq .05$) in their activity levels of combined anti-nuclear weapons and pro-nuclear weapons

activities (Bi-Polar Activism).

APA respondents and psychology students (TAMU) compared with other groups. Comparing APA respondents and psychology students (TAMU) to groups studied by Werner and Roy (1985): peace activists; religious teachers; psychology students at the California School of Professional Psychology in Berkeley, California (CSPP-Berkeley); Republicans; and defense workers; indicated that significant differences were found in mean levels of activity regarding nuclear weapons on several measures.

Results of analysis of variance using the program ANOVAMS.C (unpublished) to analyze data are presented in Tables 10, 11, and 12. Table 10 presents results indicating significant group differences in mean bi-polar activism scores [F (6, 519) = 73.974, $p \leq .05$]. Table 11 presents results indicating significant group differences in mean anti-nuclear activism scores [F (6, 519) = 65.197, $p \leq .05$]. Table 12 presents results indicating significant group differences in mean pro-nuclear activism scores [F (6, 519) = 50.073, $p \leq .05$].

Table 10

ANOVA of Mean Scores for all 7 Groups on the Bi-Polar Activism Scale of the NAQ

Source	df	SS	MS	F
Between	6	18293.411	3048.902	73.974*
Error	513	21143.724	41.216	
Total	519	39437.135		

* $p \leq .05$

Table 11

ANOVA of Mean Scores for all 7 Groups on the Anti-Nuclear Activism Scale of the NAQ

Source	df	SS	MS	F
Between	6	10478.568	1746.428	65.197*
Error	513	13741.750	26.787	
Total	519	24220.318		

* $p \leq .05$

Table 12

ANOVA of Mean Scores for all 7 Groups on the Pro-Nuclear Activism Scale of the NAQ

Source	df	SS	MS	F
Between	6	2242.353	373.726	50.073*
Error	513	3828.817	7.464	
Total	519	6071.170		

* $p \leq .05$

Post-hoc pairwise comparisons were conducted using the procedure SHEFFE.PR (unpublished) to identify group differences. Difference scores and F-ratio's resulting from the pairwise comparisons of APA respondents and psychology students (TAMU) with the five groups studied by Werner and Roy (1985): peace activists, religious teachers, psychology students (CSPP-Berkeley), Republicans, and defense workers, are presented in Table 13.

Significant differences were found when APA respondents and psychology students (TAMU) were compared to the other five groups. On bi-polar activism, APA respondents differed significantly from all five groups studied by Werner and Roy (1985), and psychology students (TAMU) differed significantly from all groups except defense workers.

Table 13

Comparison of Mean Score Differences of APA Members, Psychology Students (Texas A&M) and Werner and Roy (1985) Reference Groups on Activism Scales

Pairwise	Bi-Polar		Anti-Nuclear		Pro-Nuclear	
Comparison	Diff	F	Diff	F	Diff	F
1 - 2	2.59	.75	2.01	.70	-.64	.25
1 - 3	-11.98	24.78*	-11.34	34.16*	.63	.38
1 - 4	-7.09	8.68*	-6.72	11.99*	.38	.99
1 - 5	-6.82	7.22*	-6.58	10.34*	.24	.99
1 - 6	10.72	16.82*	4.89	5.39*	-5.84	25.57*
1 - 7	6.78	6.17*	1.44	.86	-5.34	21.13*
2 - 3	-14.57	16.55*	-13.35	21.38*	1.27	.69
2 - 4	-9.68	7.31*	-8.73	9.14*	1.02	.45
2 - 5	-9.41	6.57*	-8.59	8.43*	.88	.32
2 - 6	8.13	4.77*	2.88	.92	-5.20	10.77*
2 - 7	4.19	1.21	-.57	.03	-4.70	8.42*

* $p \leq .05$

Note. 1 = APA members, 2 = psychology students (TAMU), 3 = peace activists, 4 = religious teachers, 5 = psychology students (CSPP-Berkeley), 6 = Republicans, 7 = defense workers.

On anti-nuclear activism, APA respondents differed significantly from all groups in the Werner and Roy (1985) study except defense workers. Psychology students (TAMU) were significantly different from peace activists, religious teachers, and psychology students (CSPP-Berkeley) in anti-nuclear activism, but not Republicans and defense workers.

APA respondents and psychology students (TAMU) differed significantly from Republicans and defense workers on pro-nuclear activism, but not from peace activists, religious teachers, and psychology students (CSPP-Berkeley). For the convenience of the reader, Table 14 illustrates how APA respondents and psychology students (TAMU) ranked with the groups studied by Werner and Roy (1985). Table 14 is an expansion of the format presented in Werner and Roy (1985) which ranked groups in descending order according to mean bi-polar activism scale scores.

Examination of the rankings presented in Table 14 suggested that APA respondents ranked 4th and psychology students (TAMU) ranked 5th on bi-polar activism. When compared to Republicans and defense workers on bi-polar activism, APA respondents and psychology students (TAMU) were significantly different. Upon closer examination however, these differences were less related to the average frequency of activities, than to the direction in which activities were geared. Since bi-polar activism rankings were weighted in the direction of anti-nuclear weapons activities, and because APA respondents and psychology students (TAMU) engaged in more anti-nuclear weapons activities and fewer pro-nuclear weapons activities than Republicans and defense workers, APA respondents and psychology students (TAMU), ranked higher on this scale. This explanation is further

corroborated by findings from pairwise comparisons indicating: (a) no significant differences between APA respondents, defense workers, and psychology students (TAMU) and Republicans and defense workers in anti-nuclear activism; and (b) significantly fewer pro-nuclear weapons activities reported by APA respondents and psychology students (TAMU) compared to Republicans and defense workers. A reversal is noted on anti-nuclear activism for psychology students (TAMU), who ranked between defense workers and Republicans. Werner and Roy (1985) noted a reversal between Republicans and defense workers on anti-nuclear activism and pro-nuclear activism when compared to how these groups ranked on bi-polar activism. On pro-nuclear activism, APA respondents and psychology students (TAMU) ranked between psychology students (CSPP-Berkeley) and defense workers.

Table 14

Group Mean Frequencies and Standard Deviations on the NAQ[t]

Group	(N)	Bi-polar activism[a] M	SD	Anti-nuclear activism[b] M	SD	Pro-nuclear activism[c] M	SD
Peace activists	(51)	17.18	4.23	17.25	4.21	.08	0.44
Religious teachers	(51)	12.29	5.62	12.63	5.32	.33	1.18
Psychology students (CSPP-Berkeley)	(45)	12.02	6.46	12.49	5.42	0.47	1.83
APA respondents	(262)	5.20	6.53	5.91	5.52	0.71	2.27
Psychology students (TAMU)	(30)	2.61	5.00	3.90	3.60	1.35	2.86
Republicans	(42)	-5.52	6.68	1.02	2.81	6.55	5.49
Defense workers	(38)	-1.58	9.19	4.47	6.33	6.05	4.58

[a] F (6, 519) = 73.974, $p \leq .05$.

[b] F (6, 519) = 65.197, $p \leq .05$.

[c] F (6, 519) = 50.073, $p \leq .05$.

[t] Table adapted from Werner and Roy (1985)

Research Question #3: Do Areas of Consensus Exist Among APA Members Concerning the Acceptability of Professional Activities Related to the Controversial Issue of Anti-Nuclear Weapons Advocacy?

In order to answer this question mean scale scores and standard deviations were examined on the Anti-Nuclear Weapons Professional Activities Scale (ANPAS), which was composed of items 28 through 43 on the survey instrument Opinions on Anti-Nuclear Weapons Activism. In general, it appeared that there was no overall consensus about the acceptability of psychologists professionally engaging in anti-nuclear weapons activities. Respondents leaned in the direction of approving anti-nuclear weapons professional activities as measured by the mean score on scale FS of ANPAS (M = 60.08, range = 12-80), but as a group there appeared to be a moderate degree of divergence of opinion about the acceptability of all activities (SD = 12.02).

Specific areas of actitivy. It was possible however, to establish and identify select areas of activity where respondents were in greater agreement. Respondents were most uniformly approving of research-related (RS) activities (M = 17.35, range = 4 - 20; SD = 2.92). Respondents leaned towards approval of applied practice-related (AP) activities (M = 15.33, range = 4 - 20), while there was a moderate degree of divergence of opinion regarding how acceptable these activities were (SD = 3.24).

Education-related (ED) activities followed applied-practice related activities fairly closely in terms of average group approval rating (M = 14.94, range = 4 - 20), and extent of divergence of opinion about the acceptability of these activities (SD = 3.52). Respondents were least favorably disposed towards political-related (POL) activities (M = 20.52, range = 6 - 30), and were most divergent in their opinions about the acceptability of these activities (SD = 6.03).

Individual activities. As the next step in answering this research question and clarifying areas of agreement and disagreement, individual item analyses were performed (see Table 15). To facilitate discussion of the data, response categories "1" (strongly disapprove) and "2" (disapprove) were combined into one category representing a disapproving opinion, and response categories "4" (approve) and "5" (strongly approve) were combined into one category representing an approving opinion. Response category "3" represented a "neutral" response for purposes of this discussion. For the convenience of the reader, items comprising each area of anti-nuclear weapons activities are reviewed below:

Education-related (ED): items Q28, Q29, Q32, Q40.

Research-related (RS): items Q35, Q41, Q42, Q43.

Table 15

Response Frequencies, Percentages, Means, and Standard Deviations on ANPAS Items

	Response							
	Disapproving				Approving			
	1 - 2		3		4 - 5			
Item	n	(%)	n	(%)	n	(%)	M	SD
Q28	55	(21.0)	51	(19.5)	251	(59.6)	3.54	1.27
Q29	14	(5.4)	21	(8.0)	227	(86.6)	4.37	0.94
Q30	29	(11.1)	46	(17.6)	187	(68.3)	3.92	1.10
Q31	30	(11.5)	63	(24.0)	169	(64.6)	3.76	1.14
Q32	36	(13.7)	35	(13.4)	191	(72.9)	3.91	1.16
Q33	61	(23.3)	54	(20.6)	147	(56.1)	3.50	1.33
Q34	124	(28.6)	73	(27.9)	65	(24.8)	2.62	1.35
Q35	25	(9.5)	47	(17.9)	190	(72.5)	4.00	1.13
Q36	61	(23.3)	54	(20.6)	147	(56.1)	3.51	1.33
Q37	16	(6.1)	32	(12.2)	214	(81.7)	4.26	1.07
Q38	56	(21.3)	74	(28.2)	132	(50.4)	3.38	1.29
Q39	107	(25.6)	67	(25.6)	88	(33.5)	2.85	1.43
Q40	87	(33.2)	63	(24.0)	112	(42.7)	3.13	1.42
Q41	7	(2.6)	20	(7.6)	235	(89.7)	4.49	0.80
Q42	10	(3.8)	30	(11.5)	222	(84.7)	4.33	0.89
Q43	4	(1.5)	21	(8.0)	237	(90.4)	4.53	0.77

Note. (Q28) = "Encourage teaching about nuclear war in primary and secondary schools." (Q29) = "Write college textbook on psychological aspects of war, peace, and nuclear weapons." (Q30) = "Lead awareness groups that focus on member concerns about war, peace and nuclear weapons." (Q31) = "Be a paid or volunteer consultant to a peace group." (Q32) = "Encourage students in your class to debate various strategies to prevent nuclear war." (Q33) = "Write to the editor of a publication advocating against nuclear weapons." (Q34) = "Distribute anti-nuclear weapons literature or petition at place of employment." (Q35) = "Conduct research into factors most effective to promoting an anti-nuclear

(table continues)

Table 15, Continued

Note, continued. weapons public policy." (Q36) = "Attempt to persuade a political leader through letters, phone calls, or personal meetings to support an anti-nuclear weapons position." (Q37) = "Discuss client concerns about nuclear war in therapy, if client initiates discussion." (Q38) = "Encourage concerned therapy client to discuss feelings about nuclear war with family and friends." (Q39) = "Run for political office as a psychologist advocating a nuclear freeze/disarmament." (Q40) = "Encourage students in your class to become active working for peace." (Q41) = "Conduct research into mental health implications of nuclear war and threat of nuclear war." (Q42) = "Present current research findings on war, peace, and nuclear weapons to peace groups." (Q43) = "Conduct research into factors that influence the decisions and actions of nuclear policy makers."

Applied-practice-related (AP): Q30, Q31, Q37, Q38.

Political-related (POL): Q31, Q33, Q34, Q36, Q39, Q42.

Five activities (Q29, Q37, Q41, Q42, Q43) were approved by greater than 80% of all respondents. Item Q29, "Write a college textbook on the psychological aspects of war, peace, and nuclear weapons" was an education-related (ED) activity in which 86.6% (n = 227) of the respondents approved, while 5.4% (n = 14) disapproved, and 8.0% (n = 21) remained neutral. Item Q37, "Discuss client concerns about nuclear war in therapy if client initiates discussion" was an applied practice-related (AP) activity which was approved by 81.7% (n = 214), while 6.1% (n = 16) disapproved, and 12.2% (n = 32) remained neutral. The following three items were research-related (RS) activities, one of which (item Q42) overlapped with political-related (POL) activities. Item Q41, "Conduct research into the mental health

implications of nuclear war and the threat of nuclear war" was approved by 89.7% (n = 235), while 2.6% (n = 7) disapproved, and 7.6% (n = 20) remained neutral. Item Q42, "Present current research findings on war, peace, and nuclear weapons to peace groups" was approved by 84.7% (n = 222) while 3.8% (n = 10) disapproved, and 11.5% (n = 30) remained neutral. Item Q43, "Conduct research into factors that influence the decisions and actions of nuclear policy-makers" was approved by 90.4% (n = 237), while 1.5% (n = 4) disapproved, and 8.0% (n = 21) remained neutral.

Two activities, one education-related (Q32), and the other research-related (Q35) were each approved by 72% to 73% of respondents. Six activities, one of which was education-related (Q28), three of which were applied practice-related (Q30, Q31, Q38), and two of which were political-related (Q33, Q36), were approved by 50.4% (Q38) to 68.3% (Q30) of the respondents. Three activities, two of which were political-related (Q34, Q39), and the other which was education-related (Q40) were approved by fewer than 50% of the respondents. In fact, two political-related activities, were disapproved by a greater percentage of respondents than approved: "Distribute anti-nuclear weapons literature or petition at one's place of employment" (Q34) was disapproved by 47.3% (n = 124), while 24.8% (n = 65) approved, and 27.9% (n = 73) remained neutral; and "Run for political office as a psychologist advocating a nuclear freeze or

disarmament" (Q39) was disapproved by 40.9% (n = 107), while 33.5% (n = 88) approved, and 25.6% (n = 67) remained neutral.

Research Question #4: Where Consensus Does Not Exist Among APA Members Concerning Activities Related to Anti-Nuclear Weapons Advocacy, Can Differences Be Described and Explained by Variables Related to Personal Activism, Personal Attitudes and Beliefs, Professional Issues, and Demographics?

In order to evaluate whether a respondent's endorsement of anti-nuclear weapons professional activities was related to position on professional issues (PIS), personal attitudes and beliefs about nuclear weapons and nuclear war, frequency of personal nuclear weapons activities, and demographics, correlation and multiple correlation analyses were conducted. A total of 19 predictor variables were included in correlational analysis. Correlation analysis indicated that at least 12 variables correlated significantly with endorsement of anti-nuclear weapons professional activities, therefore only variables with correlations greater than $\pm$ .45 are discussed. For a discussion of why a cutoff of $\pm$ .45 was selected, see Borg and Gall's discussion of decision rules concerning determination of the practical significance of correlation magnitudes (1983, pp 623-624).

It was found from correlation analysis (see Table 16) that some very strong relationships were found among the variables

Table 16

Correlations (Pearson r) and Multiple Correlations of Activism, Personal Attitude, Professional Issue, and Demographic Variables with ANPAS Scales FS, ED, RS, AP and POL

(N=262)

Variable	Scale FS	ED	RS	AP	POL
I Activism					
Anti-Nuclear (AN)	.50*	.46*	.35	.32	.50*
Pro-nuclear (PRO)	-.24	-.12	-.21	-.13	-.30
Multiple R	.51*	.46*	.36	.33	.53*
Bi-Polar (BI)	.51*	.43	.36	.32	.52*
II Personal Attitudes					
Concern about nuclear war (Q15)	-.38	-.46*	-.24	-.24	-.30
Population survival estimates (Q16)	.18	.09	.15	.15	.21
Wish to survive nuclear war (Q17)	.14	.07	.11	.04	.19
Weapons production support (Q18)	.48*	.32	.39	.34	.51*
American public involvement (Q19)	.25	.23	.24	.19	.19
Likelihood of nuclear war (Q20)	-.02	-.09	-.01	.04	.01
Support for SDI (Q21)	.43	.31	.35	.31	.45*
Multiple R	.59*	.55*	.46*	.46*	.57*
III Professional Issues					
Separate roles (Q22)	-.60*	-.53*	-.34	-.42	-.64*
Appropriate professional role (Q23)	-.61*	-.54*	-.38	-.44	-.63*

(table continues)

Table 16, Continued

Variable	Scale FS	ED	RS	AP	POL
III Professional Issues					
Professional knowledge and skills (Q24)	.59*	.58*	.39	.37	.58*
Promote human welfare (Q25)	.58*	.49*	.31	.43	.61*
Preserve scientific objectivity (Q26)	-.59*	-.52*	-.39	-.41	-.61*
APA use status to influence (Q27)	.67*	.61*	.42	.47	.68*
Multiple R	.77*	.70*	.49*	.54*	.78*
Scale score (PIS)	.75*	.66*	.47*	.53*	.77*
IV Demographics					
Gender	-.20	-.15	-.13	-.15	-.21
Age	-.05	-.01	-.01	-.09	-.06
Professional	.08	.13	-.03	.03	.09
Multiple R	.20	.20	.14	.17	.22

* $r \geq +.45$ and $r \leq -.45$, $p \leq .001$

Note: Correlations with magnitudes between .13 and .15, $p \leq .05$
Correlations with magnitudes between .18 and .20, $p \leq .01$
Correlations with magnitudes between .21 and .44, $p \leq .001$

examined. Variation in a respondent's level of endorsement of professional anti-nuclear weapons activities was found to be related to: position on professional issues (professional issues); attitudes and beliefs about nuclear weapons and nuclear war (personal attitudes); and frequency of personal nuclear weapons activities (personal activism). Demographics were found to have very slight relationships with all measures of anti-nuclear weapons professional activities, indicating that the demographic variables contributed very little to predicting how strongly an APA member might accept or reject anti-nuclear weapons professional activities.

In general, it was found that one's stand on professional issues was more strongly related to one's endorsement of anti-nuclear weapons professional activities than personal attitudes, and personal activism. This finding suggests that an APA member's standing on professional issues plays a much stronger role in the acceptance or rejection of anti-nuclear weapons professional activities than personal variables.

Correlations were consistently stronger for education-related activities (ED) and political-related activities (POL) than for research-related activities (RS) and applied practice-related activities (AP). As reported previously it was found that respondents were in greatest agreement about research-related activities, ($\underline{M}$ = 17.35, range = 4 - 20; $\underline{SD}$ = 2.92) and to a lesser extent respondents were also in general agreement about

applied practice-related activities (M = 15.33, range = 4 - 20; SD = 3.24). Knowing an individual's score on items related to professional issues, personal attitudes, personal activism, did not help predict scores on scales RS and AP, as well as they helped predict scores on scales POL and ED. Though no causality was suggested, this finding suggested that where less consensus existed regarding endorsement of anti-nuclear weapons professional activism, knowing about an APA member's standing on: professional issues, personal attitudes, and personal activism, helped to predict how strongly anti-nuclear weapons professional activities will be accepted or rejected. A discussion of each group of variables found to be related to anti-nuclear weapons professional activities is discussed below.

Professional issues. Respondents who tended to agree with positions that leaned towards acceptance of professional advocacy against nuclear weapons (scale score PIS) tended to be more accepting of anti-nuclear weapons professional activities (FS) in general (r = .75, $p \leq .001$). Examination of individual professional issue items in the Professional Involvement Scale yielded interesting results. A moderately strong negative correlation (r = -.60, $p \leq .001$) was found between one's position concerning a separation of professional and private roles in anti-nuclear weapons activism and endorsement of anti-nuclear weapons professional activities. This finding suggested that the

more an individual endorsed not separating roles, the more likely an individual was to endorse anti-nuclear weapons professional activities generally.

Respondents who tended to agree with the statements "Psychologists possess special knowledge and skills that justify speaking out in the public arena on issues concerning nuclear weapons and nuclear war" (Q24), "Promoting and protecting human welfare necessitates taking a stand as a psychologist in support of a nuclear freeze/disarmament" (Q25) and "The American Psychological Association ought to use its status as a scientific and professional organization to help influence public opinion and public policy regarding nuclear weapons" (Q27) were more likely to approve of anti-nuclear weapons professional activities ($\underline{r}$ = .59, $\underline{p} \leq .001$; $\underline{r}$ = .58, $\underline{p} \leq .001$, $\underline{r}$ = .67, $\underline{p} \leq .001$, respectively). These findings suggested that respondents who tended to agree: that psychologists possessed competence regarding nuclear weapons issues, in the necessity for psychologists to promote and protect human welfare, that the APA had a duty to use its influence regarding nuclear weapons, were more likely to endorse psychologists professionally engaging in anti-nuclear weapons activities.

Respondents who disagreed with the statement "Psychologists should separate their roles as professionals from their roles as private citizens when addressing the issue of nuclear freeze/disarmament" (Q22) were more likely to approve of anti-

nuclear weapons professional activities than respondents who agreed with this statement (r = -.60, $p \leq .001$). A similarly strong negative correlation (r = -.61, $p \leq .001$) was found for the statement "To speak out publicly as a psychologist (rather than as a private citizen) on the issue of nuclear disarmament is an inappropriate use of the professional role" (Q23), indicating that those who disagreed with this statement were more likely to approve of anti-nuclear weapons professional activities. Respondents who tended to disagree with the statement "Preserving scientific objectivity necessitates refraining as a psychologist from activities designed to influence public policy concerning nuclear weapons" (Q26) were more likely to approve, while those who tended to agree were more likely to disapprove of anti-nuclear weapons professional activities (r = -.59, $p \leq .001$).

Similarly high magnitudes of correlation were found between these statements and endorsement of particular kinds of professional activities. When all these statements were combined and examined in relation to each particular area of activity (research, applied practice, education, and political-related activities), relationships ranging from moderately strong to very strong were found (R = .49, R = .54, R = .70, and R = .78, respectively; $p \leq .001$). However, when each statement was individually examined in relation to a particular activity area, education-related activities (ED) and political-related activities (POL) had correlations of similar strength and

direction as for anti-nuclear weapons professional activities (FS) in general. As discussed earlier, this was consistent with the finding that research-related activities and applied practice-related activities were more uniformly endorsed than education related activities and political-related activities. A moderately strong positive correlation was found however, between a respondent's position regarding the APA's use of status to help influence public opinion and policy, and applied practice-related activities ($r = .47$, $p \leq .001$). All other professional issues statements did not meet the .45 cutoff discussed earlier, although two (Q23 and Q25) were close ($r = -.44$ and $r = .43$, respectively; $p \leq .001$).

Personal attitudes and beliefs. When the seven personal attitude and belief items were combined and correlated with anti-nuclear weapons professional activity areas, moderately strong correlations were found ranging from .46 for research-related and applied practice-related activities to .59 for anti-nuclear weapons professional activities in general. This finding suggested that when several personal attitudes and beliefs about nuclear weapons and nuclear war were sampled and considered in combination, they possessed moderate predictive power in determining how strongly an APA member would accept or reject anti-nuclear weapons professional activities.

Examination of individual attitude and belief items did

not reveal any clear pattern of relationship with specific areas of activity. Respondents who expressed greater concern in response to the question "How concerned are you about the possibility of nuclear war?" (Q15) were more likely to approve of education-related activities (r = -.46, $p \leq .001$) than research-related, applied-practice-related, and political-related activities. This finding suggested that respondents who expressed greater concern about the possibility of nuclear war saw education as a more acceptable professional way of dealing with the perceived threat.

The level of support a respondent expressed regarding nuclear weapons production as measured by the question "At what level do you support production of nuclear weapons by the United States?" (Q18) correlated with endorsement of anti-nuclear weapons professional activities in general, and political-related activities in particular (r = .48, r = .51, respectively; $p \leq .001$). Respondents who favored a freeze in production or reduction in the weapons stockpile were more likely to approve of anti-nuclear weapons professional activities in general, and political activities against nuclear weapons in particular. A respondent's position regarding space-based weapons as measured by the question "Do you support the development of the space-based Strategic Defense Initiative (SDI)?" (Q21) was also related to how strongly one endorsed political-related activities (r = .45, $p \leq .001$). Respondents who did not support the

development of SDI were more likely to endorse political-related activities against nuclear weapons than those who supported SDI.

Endorsement of anti-nuclear weapons professional activities (either generally, or in particular areas of activity) was found to have no significant linear correlation with the perceived likelihood of nuclear war (Q20); negligible to slight correlation with estimates of human damage in the event of a nuclear war (Q16; maximum $\underline{r}$ = .21, $\underline{p} \leq .001$), and the desire to survive a nuclear war (Q17; maximum $\underline{r}$ = .19, $\underline{p} \leq .01$); and a slight correlation with belief about the efficacy of public involvement in the nuclear weapons issue (Q19; maximum $\underline{r}$ = .25, $\underline{p} \leq .001$).

Personal activism. The frequency of a respondent's personal anti-nuclear weapons activities was found to be related to how strongly anti-nuclear weapons professional activities were approved or disapproved. Respondents who engaged in more frequent personal anti-nuclear weapons activities were more likely to endorse professional activities in general (AN: $\underline{r}$ = .50, $\underline{p} \leq .001$), and education-related and political-related activities in particular ($\underline{r}$ = .46, and $\underline{r}$ = .50; $\underline{p} \leq .001$ respectively). Similar magnitudes of correlation for professional activities in general, and education-related and political-related activities in particular were found when a respondent's personal anti-nuclear weapons and pro-nuclear weapons activities were combined ($\underline{R}$ = .51, $\underline{R}$ = .46, and $\underline{R}$ = .53;

$p \leq .001$, respectively). This finding suggested that respondents who had been more active in anti-nuclear weapons activities were more likely to approve of professional activities generally. Upon closer examination, this relationship was more pronounced for education-related and political-related activities, than for research-related and applied practice-related activities. Although a respondent's prior level personal activism was not by itself a strong predictor regarding approval of professional anti-nuclear weapons activities, personal anti-nuclear weapons activism made a modest contribution to prediction ($R^2 = .26$)

Demographics. One-way analysis of variance on categorical variables indicated that a respondent's race [F (1,258) = 3.66, $p > .05$] marital status [F (4,254) = .80, $p > .05$], and theoretical orientation [F (4,255) = 1.11, $p > .05$] had no significant relationship to how strongly anti-nuclear weapons professional activities generally (FS), were accepted or rejected. A respondent's political affiliation (see Table 17) was found to significantly relate to how strongly anti-nuclear weapons professional activities were endorsed [F (3, 260) = 12.84, $p \leq .001$]. Democrats (M = 63.26) were the most approving of anti-nuclear weapons professional activities, whereas Republicans (m - 51.09) were least approving, and Independents (M = 57.34) fell in-between Democrats and Republicans (see Table 18).

Table 17

ANOVA of Political Affiliation (PA) on Scores on Scale FS of ANPAS

Source	df	SS	MS	F
Between	3	4806.158	1602.053	12.84*
Error	257	32056.880	124.735	
Total	260	36863.040		

* $p \leq .001$

Table 18

Significant Group Differences on PA using Fisher LSD Means Test on Scale FS

Group	N	Mean	Std. Error	Effect
All	262	60.20		57.09
Democrat	161	63.26	.88	6.17*
Republican	33	51.09	1.94	-6.00*
Independent	64	57.34	1.40	.25*
Other	3	56.67	6.44	-.42

* $p \leq .001$

Relationship of Prediction Variables (Combined) to Professional Activism

When predictor variables were combined, it was found that they became a powerful predictor of the extent of approval or

disapproval given to anti-nuclear weapons professional activities. It was found that knowing a respondent's: extent of personal anti-nuclear weapons (AN) and pro-nuclear weapons (PRO) activism, level of concern about nuclear war (Q15), personal estimate of human damage in a nuclear war (Q16), desire to survive a nuclear war (Q17), level of support for nuclear weapons production (Q18), belief about the efficacy of public involvement in the nuclear weapons issue (Q19), belief in the immediacy of a nuclear war (Q20), support for SDI (Q21), position regarding professional/citizen role separation (Q22), position on the appropriateness of public statements by psychologists (Q23), position on the competence of psychologists (Q24), position on the necessity for psychologists to support a freeze/disarmament (Q25), position on scientific objectivity precluding public activity (Q26), position regarding the APA in public advocacy (Q27), gender (GEN), professional orientation (PO), and political affiliation (PA) would be able to help predict a respondent's endorsement of anti-nuclear weapons activism by psychologists acting in their professional roles. Table 19 presents results of multiple correlation and multiple regression analyses for several variations of predictor combinations. Table 19 indicated a marginal maximum difference (.04) between the weakest and strongest combination of predictors.

Table 19

Multiple Correlation and Multiple Regression Analysis of Personal Activism, Personal Attitudes, Professional Issues, and Demographic Variables on Scale FS

Variable Combinations	R	R^2
1) AN, PRO, Q15-Q21, Q22-Q27, Gen, PO, PA	.84	.70***
2) BI, Q15-Q21, Q22-Q27, Gen, PO, PA	.83	.69***
3) AN, PRO, Q15-Q21, PIS, Gen, PO, PA	.82	.67***
4) BI, Q15-Q21, PIS, Gen, PO, PA	.81	.66***

*** $p \leq .001$

It is interesting to note that a respondent's frequency of personal activism, personal attitudes and beliefs, and demographics added very modestly to increased predictive power (+10% to +11%) over that contributed by a knowledge of respondent's position on professional issues related to advocacy (Q22 to Q27, $R^2 = .59$; or PIS, $r^2 = .56$) alone. This finding suggested that one's standing on professional issues regarding professional activism was a significant core predictor which was modestly enhanced by a respondent's personal activism level, personal attitudes and beliefs, and demographics.

Supplementary Descriptive Analyses

The following results are presented to provide a description of respondents' opinions concerning professional issues related

to anti-nuclear weapons advocacy personal attitudes, and respondents' attitudes and beliefs regarding nuclear weapons and the likelihood of nuclear war.

Professional issues related to anti-nuclear weapons advocacy. Analysis of individual professional issues indicated that respondents were clearly divided regarding their opinions about professional issues related to anti-nuclear weapons activism by psychologists (see Table 20). To facilitate discussion of response frequencies, response categories "1" and "2" were combined to represent disagreement, response categories "4" and "5" were combined to represent agreement, and response category "3" represented a neutral response.

There were only two issues where greater than 50% of the respondents leaned in the same direction: 149 (53.1%) respondents did not feel that it was inappropriate for psychologists to speak out publicly on the issue of nuclear disarmament (Q23), and 170 (64.9%) respondents did not agree that preserving scientific objectivity precluded involvement in activities designed to influence public policy regarding nuclear weapons (Q26).

There was greater diversity of opinion on the four remaining issues: whether psychologists should separate professional and personal roles in addressing the issue of a nuclear freeze/disarmament (Q22), whether psychologists possess special

Table 20

Response Frequencies, Percentages, Means, and Standard Deviations on Individual Items of the Professional Involvement Scale

	Response							
	Disagree				Agree			
	1 - 2		3		4 - 5			
Item	n	(%)	n	(%)	n	(%)	M	SD
Q22	118	(45.0)	41	(15.6)	103	(39.3)	3.00[b]	1.42
Q23	139	(53.1)	37	(14.1)	86	(32.8)	2.76[b]	1.43
Q24	104	(39.7)	59	(22.5)	99	(37.7)	2.94[a]	1.31
Q25	104	(39.7)	55	(21.0)	103	(39.3)	2.92[a]	1.32
Q26	170	(64.9)	46	(17.6)	46	(17.5)	2.29[a]	1.23
Q27	103	(39.4)	47	(17.9)	112	(42.8)	2.98[a]	1.41

[a] Standard error of the mean = .16 at 95% C I

[b] Standard error of the mean = .17 at 95% C I

Note. (Q22) = "Psychologists should separate their roles as professionals from their roles as private citizens when addressing the issue of nuclear freeze/disarmament." (Q23) = "To speak out publicly as a psychologist (rather than as a private citizen) on the issue of nuclear disarmament is an inappropriate use of the professional role." (Q24) = "Psychologists posses special knowledge and skills that justify speaking out in the public arena on issues concerning nuclear weapons and nuclear war." (Q25) = "Promoting and protecting human welfare necessitates taking a stand as a psychologist in support of a nuclear freeze/disarmament." (Q26) = "Preserving scientific objectivity necessitates refraining as a psychologist from activities designed to influence public policy concerning nuclear weapons." (Q27) = "The American Psychological Association ought to use its status as a scientific and professional organization to help influence public opinion and public policy regarding nuclear weapons."

knowledge and skills that justify speaking out publicly on the issue of nuclear disarmament (Q24), whether promoting and protecting human welfare necessitates taking a public stand as a psychologist in support of a nuclear freeze/disarmament (Q25), and whether the APA should use its organizational status to help influence public opinion and policy regarding nuclear weapons (Q27).

Personal attitudes and beliefs regarding nuclear weapons. Analysis of respondents' personal attitudes and beliefs about nuclear weapons and the likelihood of nuclear war suggested that the majority of respondents: had concern about the possibility of a nuclear war (Q15), did not believe a nuclear war is likely to occur within the next 25 years (Q20), estimated extensive human damage in the event of a nuclear war (Q16), favored a freeze/reduction in nuclear weapons (Q18), believed the American public can decrease the likelihood of nuclear war through direct involvement on the issue (Q19), and did not support the development of the space-based Strategic Defense Initiative (Q21). Respondents were nearly evenly divided in their desire to survive an "all-out" nuclear war (Q17).

Item response frequencies and percentages are presented in the following discussion. In response to "How concerned are you about the possibility of nuclear war?" (Q15), 69 (26.3%) were extremely concerned, 139 (53.1%) were somewhat concerned, 47

(17.9) were not very concerned, and 7 (2.7%) were not at all concerned. When asked to estimate the percentage of the U.S. population likely to survive a nuclear attack (Q16), a very large majority (92.7%) estimated 50% or less of the U.S. population would survive. Three (1.2%) predicted 75%-100% would survive, 16 (6.2%) predicted 50%-75% would survive, while 45 (17.4%) predicted 25%-50% would survive, 152 (58.7%) predicted 1%-25% would survive, and 43 (16.6%) predicted 0% would survive.

When asked if respondents would want to survive an all-out nuclear war (Q17), 78 (29.9%) indicated "yes", 94 (36.0%) indicated "don't know", and 89 (34.1) indicated "no". When asked, "At what level do you support production of nuclear weapons by the United States?" (Q18), 7 (2.7%) favored an increase over current levels, 48 (18.7%) favored maintaining production at current levels, 45 (17.5%) favored a freeze in production, and 157 (61.1%) favored reducing the weapons stockpile.

In response to "Does the American public's direct involvement in the nuclear war issue increase/have no effect/or decrease the likelihood of nuclear war?" (Q19), 25 (10.2%) indicated "increase", 85 (34.6) indicated "no effect", and 136 (55.3%) indicated "decrease". When asked, "Do you believe that a nuclear war is likely to occur within the next 25 years?" (Q20), 55 (21.7%) said "yes", and 199 (78.3%) said "no". When asked, "Do you support the development of the space-based

Strategic Defense Initiative (SDI)?" (Q21), 61 (24.3%) responded "yes" and 190 (75.7%) responded "no".

Summary

There were 262 usable responses to the survey, yielding an effective response rate of 67.01%. Females comprised 41.6% (n = 109) and males comprised 58.4% (n = 153) of the final sample. The average age of the total sample was 46.17 years (SD = 11.05 years, range 30-81 years). Respondents were significantly overrepresented by females compared to non-respondents and the APA membership by six percentage points. Respondents did not significantly differ from non-respondents and the APA membership on other demographic variables.

Nuclear war was ranked next to last (4th out of 5) in terms of the perceived importance of the issue for psychologists to publicly speak out on. Respondents were found to engage in a greater mean frequency of anti-nuclear weapons related activities compared to pro-nuclear weapons related activities. In comparison to peace activists, religious teachers, and psychology graduate students in Berkeley, Ca., respondents were found to engage in a significantly smaller mean frequency of anti-nuclear weapons activities. The mean frequency of pro-nuclear weapons activities reported by respondents was slight, and not significantly different from peace activists, religious teachers, psychology graduate students in California, and psychology

graduate students in Texas.

Consensus of opinion was not found regarding support for anti-nuclear weapons professional activities in general; however, respondents were found to lean towards being favorably disposed towards these activities. When respondents' opinions regarding anti-nuclear weapons professional activities were examined in relation to specific areas of professional expertise, it was found that research-related activities were most uniformly approved, whereas political-related activities were least uniformly accepted. Education-related and applied practice-related activities fell in the middle in terms of acceptability by respondents.

It was found that respondents' stands on professional issues related to nuclear weapons were most highly correlated with support of anti-nuclear weapons professional activities in general, and political-related and education-related activities in particular. Several personal attitudes, and frequency of anti-nuclear weapons activities were significantly correlated with support of anti-nuclear weapons professional activities in general, and political-related and education-related activities in particular; however the magnitudes of these correlations were not as great as those for stands on professional issues. Support of anti-nuclear weapons professional activities was slightly, but significantly correlated with gender, and moderately affected by political affiliation. Knowing a respondent's stand on

professional issues, personal attitudes, frequency of anti-nuclear weapons activities, gender, professional orientation, and political affiliation combined, proved to be a very effective predictor of support for anti-nuclear weapons professional activities ($\underline{R}^2$ = 70%).

Data suggested that a large majority (> 75%) of respondents were concerned about nuclear war, estimated large numbers of casualties, favored a nuclear freeze or disarmament, did not support SDI, and did not believe a nuclear war was imminent. Yet despite negative attitudes and beliefs about nuclear war by a large majority, respondents were clearly divided in their opinions on professional issues related to the acceptability of anti-nuclear advocacy by psychologists.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

The major purpose of this study was to examine the extent to which APA members supported advocacy efforts by psychologists on an important societal issue, namely nuclear war. The major questions of this study concerned: (a) the relative importance of psychologists speaking out on the issue of nuclear war compared to other controversial societal issues, (b) the level of APA members' nuclear war related activities compared to other groups, (c) whether areas of consensus existed among APA members regarding anti-nuclear weapons professional activities, and (d) factors that helped describe and explain differences among APA members where consensus was not found.

To accomplish the purpose of this research project, a 57-item questionnaire was developed which gathered information regarding respondents' nuclear war related activities, personal attitudes and beliefs about nuclear war, opinions on professional issues related to anti-nuclear weapons advocacy by psychologists, opinions on the importance of psychologists publicly speaking out on several societal issues, opinions regarding the acceptability of 16 specific anti-nuclear weapons professional activities, and demographics. Survey items came from several sources, including replication of the Nuclear Activism Questionnaire (Werner & Roy, 1985), and replication of items used in prior research with APA

members (McConnell et al., 1984, 1986; Polyson, Stein, & Sholley, 1986, 1988). Cronbach alpha internal consistency reliability coefficients were computed for two investigator-constructed scales (Professional Involvement Scale, and Anti-Nuclear Weapons Professional Activities Scale) using pilot-test and target samples. Items not replicated from prior research were based on issues, attitudes, and suggestions discussed in the professional literature.

The target sample consisted of 400 APA members randomly selected from the 1988 APA Membership Register Of 400 subjects, 278 returned surveys, and 262 surveys were used in data analysis. A response rate of 67.01% was achieved. The response rate for the present study was higher than the response rate achieved by Polyson, Stein, and Sholley (1986, 1988), and more than double the response rates achieved by McConnell et al. (1984, 1986) and Jarrett and Fairbank (1987).

The data analyses were divided into 7 major sections:

1. Basic descriptive statistics were computed to provide information concerning the biographical characteristics of respondents.

2. Respondents, non-respondents, and the APA membership in general were compared on several variables using frequencies, percentages, means, and standard deviations. A t-test was conducted to test for a significant difference between groups on mean years of membership in APA. Chi-square analyses testing for

goodness-of-fit were conducted to test for significant differences between groups on gender, and geographic distribution.

3. Frequencies, percentages, means, and standard deviations were computed for respondents' opinions on the perceived importance of psychologists speaking out on several societal issues. Societal issues were ranked by order of importance based on mean importance ratings, and one-way ANOVA and a Sheffe post-hoc analysis tested for significant differences among societal issues perceived important to psychology.

4. Means and standard deviations were computed for the target sample and pilot-test group's responses to the NAQ. The target sample's mean scores and the pilot-test group's mean scores on three scales of the NAQ were compared to five other groups with known mean scores using one-way ANOVA and Sheffe post-hoc analyses.

5. Frequencies, percentages, means, and standard deviations were computed to evaluate the acceptability of anti-nuclear weapons professional activities, based on responses to ANPAS.

6. Pearson product-moment correlations were computed between measures of anti-nuclear weapons professional activities, and predictor variables (personal nuclear weapons activities, personal attitudes, and stands on professional issues). One-way ANOVA compared scores on the criterion measure and non-interval demographic variables, and a Fisher LSD post-hoc comparison was

conducted for one statistically significant demographic variable.

7. Frequencies, percentages, means, and standard deviations were computed for respondents' responses to items relating to personal attitudes and stands on professional issues, providing additional descriptive data about respondents.

A summary of the results of data analysis is presented in the following sections.

Characteristics of Respondents and Sample Representativeness

Females comprised 41.6% (n = 109) and males comprised 58.4% (n = 153) of the final sample. The average age of respondents was 46.17 years (SD = 11.05 years, range = 30-81 years). The mean age of males was 48.40 years (SD = 11.52 years), and the mean age of females was 42.99 years (SD = 9.53 years). The final sample was overwhelmingly caucasian (91.5%, n = 238), and 76.1% (n = 197) were married. "Practitioners" comprised 61.1% (n = 159), "Scientist/Practitioners" comprised 20.8% (n = 54), and "Scientists" comprised 18.1% (n = 47). Based on theoretical orientation, 33.1% (n = 86) identified as "Behavioral/Cognitive", 31.5% (n = 82) identified as "Eclectic", 15.8% (n = 41) identified as "Psychodynamic/Freudian", 8.8% (n = 23) identified as "Existential/Humanist", and 10.8% (n = 28) identified as "other". Democrats comprised a large majority (61.7%, n = 161), followed by Independents (24.5%, n = 64), Republicans (12.6%, n = 33), and "other" (1.1%, n = 3).

The mean age and gender composition of respondents was comparable to the mean age of respondents in the Polyson et al. (1986, 1988) study. Respondents in the present study and respondents in the McConnell et al. (1984, 1986) study differed slightly on mean age, and differed in large magnitudes on gender. Theoretical orientations of APA members in the present study and McConnell et al. (1984, 1986) study were comparable.

The higher response rate in this study compared to Polyson, Stein, and Sholley (1986, 1988), McConnell et al. (1984, 1986), and Jarrett and Fairbank (1987) suggested an increasing likelihood that results of the present study were representative of the APA membership. This conclusion was supported by findings that respondents in the present study did not differ from non-respondents and the APA membership in mean years of membership in APA, mean age, and geographic distribution. The finding that females in the present study comprised a significantly larger percentage of respondents than non-respondents and the APA membership may suggest some limitations on generalizability of results. The gender difference was relatively small (6 percentage points), however, and gender was only slightly significantly correlated with the main criterion measure (ANPAS), suggesting that gender differences may be of little practical significance.

The suggestion that the sample in the present study was likely to be representative of the APA membership was reinforced

by findings from two studies (Dreher, 1977; Gough & Hall, 1977) which examined non-response bias in mail surveys. Gough & Hall (1977) found small but significant differences between respondents and non-respondents on 12 out of 128 variables examined, in a study in which 75% of the target sample (physicians) responded. Gough & Hall concluded that mail survey respondents who represent 75% of the target sample and are represented in sufficiently large numbers do not present a biased sample of a professional group. Dreher (1977) compared 692 respondents and 635 non-respondents in a survey of professional, managerial and technical workers' salaries at a large oil company. A small significant difference was found on only one out of 10 variables examined between respondents and non-respondents. Dreher suggested that response rates around 50% in large samples were likely to give results that were representative of a survey's target population.

The response rate of the present study was felt to meet criteria for sample size and exceed the response rate suggested by Dreher (1977). The sample in the present study was also felt to be sufficiently large to meet sample size criteria suggested by Gough & Hall (1977), and sufficiently close to the suggested response rate (8 percentage point difference) to suggest representativenes of the present sample.

Relative Importance of the Nuclear War Issue

Data suggested that nuclear war was an issue of importance for a sizable proportion of respondents; however, far greater proportions felt that discrimination and AIDS were issues of importance for psychologists to publicly address. Nuclear war was not significantly different from pornography and abortion in the proportions of respondents attributing importance to these issues. This finding is probably reflective of the more politically controversial nature of nuclear war, pornography, and abortion in American society, compared to discrimination and AIDS, suggesting that the controversial nature of these issues divided APA members more than discrimination and AIDS.

The finding that nuclear war ranked relatively low compared to other societal issues was also found by Jarrett and Fairbank (1987). These findings do not necessarily imply that nuclear war is perceived as unimportant, but rather that APA members consider other societal issues more relevant and important to psychology than nuclear war. Polyson et al. (1988) made a similar observation based on findings that APA members saw nuclear war as personally important, but that a sizable number did not see it as an appropriate issue for APA to address.

APA Members' Nuclear Weapons Related Activism

Based on responses to the NAQ (Werner & Roy, 1985), data

indicated that respondents engaged in anti-nuclear weapons activities more frequently than pro-nuclear weapons activities. Data also suggested that the level of APA members' anti-nuclear weapons activities was moderate compared to peace activists, religious teachers, and psychology graduate students in Berkeley, California, but significantly greater than Republicans and defense workers. Respondents' pro-nuclear weapons activities were on the average slight, and not significantly different from peace activists, religious teachers, and psychology graduate students in Berkeley and Texas, but were significantly less than Republicans and defense workers.

Moderate levels of anti-nuclear activity by APA members was reported in McConnell et al. (1984, 1986). Although direct comparisons were difficult to draw between the present study and McConnell et al. (1984, 1986) because of differences in instrumentation, the data seemed to suggest that APA members were modestly engaged in anti-nuclear weapons activities.

Data comparing the mean frequencies of nuclear weapons activities by subjects in the present study (pilot-test group included) with the normative groups used by Werner and Roy (1985) must be interpreted with caution for several reasons: (a) differences in sampling procedures; (b) larger sample size in the present study (n = 262) compared to group sample sizes (range: 38-51) in Werner and Roy (1985); (c) group means and standard deviations for APA members and psychology graduate students

(TAMU), were based on responses to the 14-item NAQ, whereas means and standard deviations for the normative groups in the Werner and Roy study were derived from responses to the initial 58-item instrument; and (d) mean frequencies of activity on the anti-nuclear and bipolar scales of the NAQ between psychology graduate students (TAMU) and psychology graduate students in Berkeley were significantly different. This last finding raised important questions about the national representativeness of the normative groups employed by Werner and Roy (1985), and suggested limitations on the ability to compare the activity levels of APA members and psychology graduate students (TAMU) relative to peace activists, religious teachers, Republicans, and defense workers across the nation.

Consensus of Opinion: Attitudes and Professional Issues

Personal Attitudes and Beliefs

Data suggested that a large percentage (>75%) of respondents were concerned about nuclear war, estimated large numbers of human casualties, favored a freeze or disarmament, did not support SDI, and did not believe nuclear war was imminent. Over half believed in citizen efficacy to reduce the likelihood of nuclear war, and respondents were evenly divided in their desire to survive a nuclear war.

In Polyson, Stein, and Sholley (1986, 1988) large majorities

of APA members also expressed concern, perceived extensive human casualties, were supportive of the APA Council's bilateral freeze resolution, and believed that citizen involvement can reduce chances for nuclear war, and did not perceive nuclear war as imminent. Respondents in Polyson, Stein, and Sholley's (1986, 1988) study were similarly evenly divided over their desire to survive a nuclear war.

Data from the present study and from Polyson et al. (1986, 1988), suggested that APA members' attitudes about nuclear war were stable over time and across samples of APA members. The conclusion can be drawn that issues related to nuclear war have strong personal significance to a majority of APA members.

Professional Issues

Respondents were fairly evenly divided regarding whether: psychologists should separate their professional and personal roles; psychologists possessed competence; there was an imperative based on protecting human welfare; APA should exercise influence on public opinion and public policy on issues related to nuclear weapons and nuclear war. Slightly more than half of APA members in the present study believed it was appropriate for psychologists to speak out publicly, and interestingly, nearly two-thirds did not believe that scientific objectivity was compromised by professional activism in nuclear war issues.

In comparison to data from McConnell et al. (1984, 1986),

the present sample of APA members was more supportive of maintaining a role separation regarding advocacy, and less supportive of the notion that psychologists had an imperative based on promoting and protecting human welfare to speak out publicly on the issue of a nuclear freeze/disarmament. A greater proportion of APA members in the present study remained neutral about the propriety of using the professional role to speak out publicly on nuclear disarmament, compared to data from McConnell et al. (1984, 1986).

Several conclusions can be drawn from the available data. First, data from the present study and McConnell et al. (1984, 1986) indicated considerable divergence of opinion on professional issues related to anti-nuclear advocacy by psychologists, suggesting the issue of anti-nuclear advocacy was consistently controversial across time and samples of APA members. Second, APA members were less endorsing of professional positions in support of anti-nuclear advocacy by psychologists in the present study compared to McConnell et al. (1984, 1986). Third, in reference to APA members' personal attitudes about nuclear war and opinions on professional issues, it appeared that issues related to nuclear war were personally important to a large percentage of APA members; however, APA members did not support advocacy efforts by psychologists at the professional level of involvement in as large a number as their personal attitudes might have indicated. APA members appeared to make

distinctions between their personal attitudes and perceived professional responsibilities.

Consensus of Opinion: Professional Activities

Consensus of opinion was not found regarding approval of the full range of anti-nuclear weapons professional activities (ANPAS-FS) presented to APA members in the present study. The activities examined in this study represented a sampling of possible activities psychologists could engage in, but did not exhaustively cover the full spectrum of all possible activities. As such, the activities examined in this study were considered representative of a range of activities that psychologists may choose to engage in. APA members were found to lean in the direction of favoring anti-nuclear weapons professional activities; however, a clear indication of general consensus was found for research-related activities only. Respondents approved of research-related activities in margins ranging from 72% to over 90%. Political-related (POL) activities were found to be the most controversial. Two of six political-related activities, (distributing literature, and running for political office) were approved by only 24.7%, and 33.5% of respondents respectively. One activity (presenting research findings to peace groups) overlapped with research-related activities, and it's high approval rating may have been related to the research presentation component of this activity.

Opinions regarding applied practice (AP) activities were divergent, with approval ratings ranging from 50.4% (encouraging client to discuss feelings with family and friends) to 81.7% (discussing client concerns about nuclear war in therapy). Respondents were more divergent in their opinions about education-related activities, demonstrated by approval ratings ranging from 42.7% approving encouraging students to get involved in peace work to 86.% approving writing a college textbook about the psychological aspects of war, peace, and nuclear weapons.

Correlates of Anti-Nuclear Advocacy

Anti-Nuclear Activities in General

An APA members' approval of anti-nuclear weapons professional activities (ANPAS-FS), was more highly correlated with professional issues, than with personal attitudes and personal activities. Positions on individual professional issues were moderately to highly correlated with ANPAS-FS; however, multiple correlation analysis indicated that an individual's positions on six professional issues combined was very highly correlated with ANPAS-FS and a very strong predictor of support for anti-nuclear weapons professional activities. Data suggested that the stronger an APA member agreed with professional issues supportive of advocacy, the more likely that individual was to approve of a range of anti-nuclear weapons professional

activities.

Several personal attitudes (weapons production policy support, support of SDI, and concern about nuclear war) correlated with ANPAS-FS at modest levels. The single strongest predictor was weapons production policy support, indicating that APA members who supported a nuclear freeze or disarmament were more supportive of anti-nuclear weapons professional activities. When all 7 personal attitudes were combined in multiple correlation analysis, it was found that personal attitudes were modest predictors of support for anti-nuclear weapons professional activities.

Frequency of personal anti-nuclear weapons activities (AN) was moderately correlated with ANPAS-FS, suggesting that the frequency of an APA member's personal anti-nuclear weapons activities was singlely predictive of support for anti-nuclear weapons professional activities to a slight extent. Although McConnell et al. (1984, 1986) did not correlate professional issues with anti-nuclear activity, an interesting observation could still be made. McConnell et al. (1984, 1986) reported more activity while identifying as private citizens than as professionals, suggesting differentiation of roles when deciding to engage in anti-nuclear weapons activities. The current study examined the relationship of personal activities on attitudes towards professional activities. The moderate correlation found between personal activities and support of professional

activities appeared to suggest that APA members made differentiations between their personal attitudes and activities, and their perceived professional responsibilities.

Demographically, gender and political affiliation were found to be statistically significant. Gender had a slight negative correlation with approval of anti-nuclear weapons professional activities, suggesting that females were slightly more likely to approve of anti-nuclear weapons professional activities than men. Polyson, Stein, and Sholley (1986, 1988) found small, but statistically significant gender differences, whereas McConnell et al. (1984, 1986) did not find gender differences in their research. The available data concerning gender differences among APA members regarding nuclear war related issues suggested that overall, gender was not a strong factor affecting APA members' attitudes, activities, or support for anti-nuclear weapons professional activities. Democrats were more supportive of professional activities, and Republicans were least supportive. This finding was not especially surprising in light of the recent modernization of U.S. military and nuclear forces initiated by the Reagan Administration in the early 1980's.

When professional issues, personal attitudes and beliefs, personal activities, and gender, political affiliation, and professional orientation were combined in multiple regression analyses, it was found that this combination accounted for between 66% to 70% of total variance in scores related to

approval of anti-nuclear weapons professional activities. Interestingly, the addition of personal attitudes, personal activity, and demographic variables into the multiple regression analysis added only a modest 10% to 11% of variance beyond that contributed by professional issues alone. One may conclude that an APA member's adherence to certain positions on professional issues related to anti-nuclear advocacy exercised a strong influence on support for anti-nuclear weapons professional activities, suggesting that an APA member's perception of psychology's foundation and role in society had stronger predictive power than personal nuclear war related attitudes and activities.

Specialized Areas of Professional Activity

Support of political-related (POL) activities was highly correlated with predictor variables, especially professional issues; education-related activities (ED) were also highly correlated with professional issues. These findings suggested that professional issues played a greater role in the more controversial areas of professional activity (POL, ED). It was interesting to note that education-related activities correlated with personal concern about nuclear war more highly than political, research, and applied practice-related activities. This finding suggested that APA members who were more concerned about nuclear war believed that providing information and

knowledge to primary, secondary, and college students was acceptable. This finding may connect with several research teams (Doctor et al., 1987; Hamilton et al., 1987; Nair, 1987) who suggested that stimulating concerned students' learning about nuclear war would reduce feelings of helplessness and improve their coping abilities.

Areas of professional activity (research and applied practice) which were less controversial, were less correlated with predictors, especially research activities. Although support of research and applied practice activities was not free from association with professional issues, data suggested that APA members had a lesser extent of concern about the professional implications of these activities than political and education-related activities. The finding that research-related activities had the least professional issues implications was not surprising given that psychologists conduct and utilize research in a number of ways to advance and apply knowledge of human behavior. This finding was consistent with positions advanced in the literature calling for the utilization of psychological research to help reduce risks of nuclear war (Blight, 1987, 1988; Klineberg, 1984; Smith, 1986; Tetlock, 1983, 1986).

Implications for Psychology

This study proceeded on a consensus sampling model, and as such, was successful in identifying an area of professional

activity (research) in which APA members were in agreement for the most part. Consensus in and of itself does not necessarily indicate that an activity is possessed of professional, moral, or ethical soundness, nor does it indicate that the activity would be performed in an ethical or professional manner. Consensual acceptance does not release a psychologist from exercising professional responsibility while engaging in an activity.

For instance, while engaged in research-related activities, psychologists are not released from the responsibility of carefully attending to sound procedures and methodology, reporting results in an objective manner, discussing limitations of the research, seeking alternative explanation of findings, and challenging misrepresentation and misuse of psychological data. In education-related activities, psychologists have a responsibility to present all relevant facts, promote critical thinking, and acknowledge personal values and biases. Psychologists should avoid engendering fear to promote a cause, and avoid presenting as fact what is merely opinion. In applied practice work with clients, a psychologist retains primary responsibility to the client's welfare, and sensitivity to power differentials in the therapist-client relationship (Flanagan & Sommers, 1986). Psychologists have a responsibility to determine whether clients can handle increased awareness of nuclear war issues, determining the extent of the client's capacity to cope with these issues, and allowing clients to make decisions that

may run counter to the therapist's own values and beliefs (Flanagan & Sommers, 1986).

On the other hand, lack of consensus does not automatically relegate an activity to unprofessional or unethical status. Lack of consensus implies that psychologists and APA should not act as if certain actions were consensually supported by all psychologists or by all members of APA. As Robinson (1984) pointed out, the issue of who is represented by APA resolutions remains unclear until organizational bylaws are amended to clarify the organizational position on societal advocacy. Even if organizational bylaws were amended, there is no guarantee that societal advocacy would not engender dissension and division among APA members.

Lack of consensus does not imply lack of ethics, rather it may suggest that equally ethical psychologists have arrived at different positions on an issue. APA members may subscribe to different positions based on a variety of factors, including differing interpretations of the Ethical Principles of Psychologists. The Ethical Principles provide guidelines for appropriate professional behavior, and provide guidelines to assist in making decisions in complex ethical and professional situations based on consensually accepted standards, but the Ethical Principles does not prescribe specific actions (Reese & Fremouw, 1984). Data from the present study lends support to the conclusion that prescriptions for ethical and professional

behavior are difficult to make concerning anti-nuclear advocacy by psychologists. Psychologists will remain confronted with having to walk a fine line on societal advocacy issues. They are ultimately left to utilize their individual professional judgments (Kitchener, 1984) when making decisions about societal advocacy.

If we were to argue for or against anti-nuclear advocacy on ethical grounds, then it appears that conflicts would arise because of conflicts in how ethical principles and standards might be interpreted. One APA member may base support of advocacy on the basis of one ethical standard, while another APA member may not support advocacy based on another ethical standard. For instance, one APA member may invoke a client's right to self-determination in supporting legalized abortion, whereas another APA member may invoke the promotion and protection of human welfare in supporting a position of the right to life for an unborn fetus.

Even APA members who adhere to the same ethical standard, may support different positions on an issue. For instance, anti-nuclear and pro-nuclear advocates may subscribe equally strongly to psychology's mission of promoting and protecting human welfare, but one may believe nuclear disarmament is the best road to promoting world peace, while the other may believe that nuclear disarmament might destabilize the superpower balance and threaten world peace. The difference of opinion reflected in

these two positions is likely to translate into support or non-support of anti-nuclear weapons professional activities.

One may conclude that consensus found in the present research offered some guidelines regarding acceptable anti-nuclear advocacy behaviors, but prescripted or proscripted action was not established. Psychologists will continue to grapple with important professional and ethical issues related to anti-nuclear weapons in particular, and societal advocacy in general.

Recommendations for Future Research

1. Future research might focus more extensively on professional and ethical issues related to anti-nuclear weapons professional advocacy. The present study examined six relevant issues; however, operationalizing relevant standards and principles in the Ethical Principles of Psychologists may provide for a more thorough empirical investigation of the ethical and professional dimensions of anti-nuclear weapons professional advocacy.

2. Future research might use the model employed in this study in the investigation of advocacy on other important societal issues. Other studies would identify attitudes, beliefs, and activities relevant to particular societal issues, and could utilize the professional issues identified in this study to draw comparisons between APA members' opinions regarding advocacy on other societal issues with the nuclear war issue.

3. Future research might also examine in greater detail the philosophical traditions and epistemological foundations of psychology as identified by Kimble (1984), and examine relationships between differing philosophical/epistemological foundations and support for anti-nuclear weapons and advocacy on other societal issues.

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APPENDIX A

OPINIONS ON ANTI-NUCLEAR WEAPONS ACTIVISM

This questionnaire is designed to help provide a better understanding of how APA members perceive the role of psychologists and the profession of psychology concerning the issue of anti-nuclear weapons activism.

Instructions for answering questions are provided at the beginning of each section. Please be sure to answer all questions on both the **front and back** of each page.

If you would like to qualify any of your answers or make comments, feel free to use the space provided in the margins or on the reverse side of the last page. Thank you for your time and cooperation.

Please return your completed questionnaire in the enclosed prepaid return envelope to:

Bob Parker
144 S. W. 332nd Place, #2806
Federal Way, WA. 98023

Nuclear Activism Questionnaire *

Instructions: Each of the questions below describes an activity that relates to the issue of nuclear weapons. Read each item carefully, and then indicate on the scale to the right of each activity the number of times you have performed that activity during the last four years by circling the appropriate number.

To shorten the items, the following "shorthand" terms are used:

"pro-nuclear weapons" means "favoring a United States policy of developing, stockpiling, and deploying nuclear weapons."

"Anti-nuclear weapons" means "favoring a policy of freezing, reducing, or eliminating nuclear weapons by the United States".

	NUMBER OF TIMES			
	NEVER	ONE	TWO	3 OR MORE
1) Turning a conversation to the subject of nuclear weapons so you could present an "anti-nuclear weapons" view.	0	1	2	3
2) Turning a conversation to the subject of nuclear weapons so you could present a "pro-nuclear weapons" view.	0	1	2	3
3) In a conversation, saying that production by the U. S. of nuclear weapons should be stopped or decreased, when the subject came up.	0	1	2	3
4) In a conversation, saying that production by the U. S. of nuclear weapons should be maintained at its current level or expanded, when the subject was brought up.	0	1	2	3
5) Trying to convince a friend or acquaintance that production by the U. S. of nuclear weapons should be maintained at its current level or expanded.	0	1	2	3
6) Trying to convince a friend or acquaintance that production by the U. S. of nuclear weapons should be decreased or stopped.	0	1	2	3
7) Contributing money to an organization that attempts to change public opinion or laws in an "anti-nuclear weapons" direction.	0	1	2	3
8) Contributing money to an organization that attempts to change public opinion or laws in a "pro-nuclear weapons" direction.	0	1	2	3
9) Trying to convince a relative that the U. S. should freeze production and deployment of nuclear weapons.	0	1	2	3
10) Trying to convince a relative that the U. S. should continue to produce and deploy nuclear weapons.	0	1	2	3
11) Signing an "anti-nuclear weapons" petition.	0	1	2	3
12) Signing a "pro-nuclear weapons" petition.	0	1	2	3

	NEVER	ONE	TWO	3 OR MORE
13) Attending a meeting of an organization or group that attempts to change public opinion or laws in a "pro-nuclear weapons" direction.	0	1	2	3
14) Attending a meeting of an organization or group that attempts to change public opinion or laws in an "anti-nuclear weapons" direction.	0	1	2	3

* Werner, P. D., & Roy P. (1985). Measuring activism regarding the nuclear arms race. Journal of Personality Assessment, 49, 181-186. Reprinted with permission.

The following questions ask for your personal feelings and views about nuclear weapons and the likelihood of nuclear war. Please circle the number that most closely corresponds to your own view.

15) How concerned are you about the possibility of nuclear war?
1. EXTREMELY CONCERNED
2. SOMEWHAT CONCERNED
3. NOT VERY CONCERNED
4. NOT AT ALL CONCERNED

16) What percentage of the U. S. population would survive an all-out nuclear war ?
1. 75-100%
2. 50-75%
3. 25-50%
4. 1-25%
5. 0%

17) If there were an all-out nuclear war, would you want to survive it?
1. YES
2. NO
3. DON'T KNOW

18) At what level do you support production of nuclear weapons by the United States?
1. INCREASE OVER CURRENT LEVELS
2. MAINTAIN AT CURRENT LEVELS
3. FREEZE PRODUCTION
4. REDUCE STOCKPILE

19) Does the American public's direct involvement in the nuclear war issue increase/have no effect/or decrease the likelihood of nuclear war?
1. INCREASE
2. NO EFFECT
3. DECREASE

20) Do you believe that a nuclear war is likely to occur within the next 25 years?
1. YES
2. NO

21) Do you support the development of the space-based Strategic Defense Initiative (SDI)?
1. YES
2. NO

The following statements address professional issues related to nuclear weapons. Indicate how strongly you disagree or agree with each statement by circling the number on the scale that most closely corresponds to your view.

22) Psychologists should separate their roles as professionals from their roles as private citizens when addressing the issue of nuclear freeze/disarmament.

STRONGLY DISAGREE				STRONGLY AGREE
1	2	3	4	5

23) To speak out publicly as a psychologist (rather than as a private citizen) on the issue of nuclear disarmament is an inappropriate use of the professional role.

STRONGLY DISAGREE				STRONGLY AGREE
1	2	3	4	5

24) Psychologists possess special knowledge and skills that justify speaking out in the public arena on issues concerning nuclear weapons and nuclear war.

STRONGLY DISAGREE				STRONGLY AGREE
1	2	3	4	5

25) Promoting and protecting human welfare necessitates taking a stand as a psychologist in support of a nuclear freeze/disarmament.

STRONGLY DISAGREE				STRONGLY AGREE
1	2	3	4	5

26) Preserving scientific objectivity necessitates refraining as a psychologist from activities designed to influence public policy concerning nuclear weapons.

STRONGLY DISAGREE				STRONGLY AGREE
1	2	3	4	5

27) The American Psychological Association ought to use its status as a scientific and professional organization to help influence public opinion and public policy regarding nuclear weapons.

STRONGLY DISAGREE				STRONGLY AGREE
1	2	3	4	5

A number of articles and books in psychology have been published addressing nuclear weapons issues. Some authors advocate psychologists taking an active role in informing the public about the risks of nuclear war and influencing public policy regarding nuclear weapons. This section concerns your opinions about the acceptability of psychologists engaging in anti-nuclear weapons and peace activism. On the list of activies below, please indicate how strongly you disapprove or approve of psychologists, acting in their professional roles, engaging in each activity.

		STRONGLY DISAPPROVE				STRONGLY APPROVE
28)	Encourage teaching about nuclear war in primary and secondary schools.	1	2	3	4	5
29)	Write a college textbook on the psychological aspects of war, peace, and nuclear weapons.	1	2	3	4	5
30)	Lead awareness groups that focus on member concerns about war, peace, and nuclear weapons.	1	2	3	4	5
31)	Be a paid or volunteer consultant to a peace group.	1	2	3	4	5
32)	Encourage students in your class to debate various strategies for preventing a nuclear war.	1	2	3	4	5
33)	Write to the editor of a newspaper, magazine, or other publication advocating against nuclear weapons.	1	2	3	4	5
34)	Distribute anti-nuclear weapons literature or petition at one's place of employment.	1	2	3	4	5
35)	Conduct research into factors most effective to promoting an anti-nuclear weapons public policy.	1	2	3	4	5
36)	Attempt to persuade a political leader through letters, phone calls, or personal meetings to support an anti-nuclear weapons position.	1	2	3	4	5
37)	Discuss client concerns about nuclear war in therapy if client initiates discussion.	1	2	3	4	5
38)	Encourage concerned therapy client to discuss feelings about nuclear war with family and friends.	1	2	3	4	5
39)	Run for political office as a psychologist advocating a nuclear freeze or disarmament.	1	2	3	4	5
40)	Encourage students in your class to become active in working for peace.	1	2	3	4	5
41)	Conduct research into the mental health implications of nuclear war and the threat of nuclear war.	1	2	3	4	5

	STRONGLY DISAPPROVE				STRONGLY APPROVE
42) Present current research findings on war, peace, and nuclear weapons to peace groups.	1	2	3	4	5
43) Conduct research into factors that influence the decisions and actions of nuclear policy-makers.	1	2	3	4	5

To place the issue of professional activism concerning nuclear weapons and nuclear war into broader perspective, please respond to the following statements.

44) Psychologists possess special knowledge and skills that enable them to speak out on important social and political issues in the public arena.

STRONGLY DISAGREE				STRONGLY AGREE
1	2	3	4	5

45) The American Psychological Association ought to use its status as a scientific and professional organization to help influence public opinion and public policy regarding important social and political issues.

STRONGLY DISAGREE				STRONGLY AGREE
1	2	3	4	5

Psychologists may take a stand and attempt to influence public opinion and public policy on various issues. How important do you feel each issue listed below is for psychologists, acting in their professional roles, to attempt to influence public opinion and public policy?

	NOT IMPORTANT				EXTREMELY IMPORTANT
46) ABORTION	1	2	3	4	5
47) AIDS	1	2	3	4	5
48) DISCRIMINATION (race, gender, etc.)	1	2	3	4	5
49) NUCLEAR WAR	1	2	3	4	5
50) PORNOGRAPHY	1	2	3	4	5

Complete the following questions by circling the appropriate response or filling the blank.

51) Gender:
1. FEMALE 2. MALE

52) Race:
1. BLACK 4. NATIVE AMERICAN
2. CAUCASIAN 5. OTHER (please specify)_____
3. HISPANIC

53) Present age (as of last birthday): _____

54) Marital status:
1. MARRIED 4. WIDOWED
2. DIVORCED 5. NEVER MARRIED
3. SEPARATED

55) On the continuum below, please circle the number that most closely corresponds to your professional orientation:

SCIENTIST		SCIENTIST-PRACTITIONER		PRACTITIONER
1	2	3	4	5

56) Theoretical Orientation (CIRCLE ONLY ONE):
1. BEHAVIORAL AND/OR COGNITIVE
2. PSYCHODYNAMIC AND/OR FREUDIAN
3. EXISTENTIAL AND/OR HUMANISTIC
4. ECLECTIC
5. OTHER _____

57) Political affiliation:
1. DEMOCRAT 3. INDEPENDENT
2. REPUBLICAN 4. OTHER

This completes the questionnaire. Thank you for your time and cooperation. Your comments are welcome, and the reverse side of this page is reserved for this purpose.

APPENDIX B

TEXAS A&M UNIVERSITY
COLLEGE OF EDUCATION
COLLEGE STATION, TEXAS 77843-4225

Office of
THE DEPARTMENT OF
EDUCATIONAL PSYCHOLOGY

Room 704
M. T. Harrington Education Center
Phone: 409-845-1831

September 4, 1988

Dear :

Psychologists have become increasingly interested in the psychological and social dimensions of living in an age of nuclear weapons. Psychologists' professional activities have included scientific research and social activism in attempts to influence public attitudes and public policy. Debates about the role of psychologists and the profession of psychology have taken place in professional journals and meetings. There are unresolved questions however, about what roles and activities are proper for psychologists to pursue regarding issues related to nuclear weapons and nuclear war.

You have been selected to give your views concerning the proper role of psychologists and the profession of psychology in addressing nuclear arms related issues. Your name was randomly selected from the 1988 Membership Register of the American Psychological Association (APA). I would appreciate your taking fifteen minutes and completing the enclosed questionnaire. For the results to be truly representative of all members of APA, your perspective is needed. Please complete this questionnaire and return it in the enclosed prepaid return envelope.

This study is being conducted as part of my dissertation under the direction of Dr. Christopher Borman, which will lead to a Ph.D. in Counseling Psychology at Texas A&M University. Your responses will be treated with complete confidentiality. The questionnaire has an identification number for mailing purposes only. This is so I may check your name off the mailing list when your questionnaire is returned.

You may receive a summary of the results by writing "copy of results requested" on the back of the return envelope and printing your name and address below it.

Please write or call if you have questions about this study. I am currently on internship and my address is 144 S.W. 332nd Place #2806, Federal Way, WA 98023. My home phone number is 206-874-9677.

Thank you for your time and cooperation.

Sincerely,

Bob Parker
Doctoral Candidate

APPENDIX C

I would like to offer my gratitude for your participation in this research project. I will randomly select 3 respondents to receive a 1 year gift subscription to a journal of their choice in the field of psychology. If you would like to have an opportunity to recieve a gift subscription or subscription renewal, please provide the information requested in the spaces below. Return this form with your completed questionnaire in the enclosed prepaid return envelope. To insure confidentiality, this form will be separated from your questionnaire upon receipt.

Name:

_____

Address:

_____

_____

Phone number:

_____

Journal name:

_____

Publisher:

_____

_____

APPENDIX D

TEXAS A&M UNIVERSITY
COLLEGE OF EDUCATION
COLLEGE STATION, TEXAS 77843-4225

Office of
THE DEPARTMENT OF
EDUCATIONAL PSYCHOLOGY

Room 704
M. T. Harrington Education Center
Phone: 409-845-1831

September 22, 1988

Dear :

Two weeks ago a questionnaire seeking your views about the roles and professional activities of psychologists in nuclear weapons related issues was mailed to you. This study is being conducted in an effort to help answer questions about the propriety of professional activism by psychologists in this area. I am conducting this research as part of my dissertation under the direction of Dr. Christopher Borman in the Counseling Psychology program at Texas A&M University.

If you have already completed and returned a questionnaire, please accept my thanks. If not, please do so today. Another questionnaire is enclosed for your convenience. Because this questionnaire was sent to a small randomly selected sample of APA members, it is important that your responses be included so the results may accurately reflect the views of the APA membership. Please take the next 15 minutes to complete this questionnaire and return it to me in the enclosed prepaid return envelope. The identification number on the front of the questionnaire is for mailing purposes only. At no time will your name be placed on the questionnaire. If you would like to receive a summary of the results, write "copy of results requested" on the back of the return envelope, and print your name and address below it. Please do not put this information on the questionnaire itself.

I will be glad to answer any questions you may have about this study. Please write or call. I am currently on internship and my address is 144 S.W. 332nd Place #2806, Federal Way, WA 98023. My home phone number is 206-874-9677.

Thank you for your time and cooperation.

Sincerely,

Bob Parker
Doctoral Candidate

APPENDIX E

TEXAS A&M UNIVERSITY
COLLEGE OF EDUCATION
COLLEGE STATION, TEXAS 77843-4225

Office of
THE DEPARTMENT OF
EDUCATIONAL PSYCHOLOGY

Room 704
M. T. Harrington Education Center
Phone: 409-845-1831

October 9, 1988

Dear :

About four weeks ago I wrote to you seeking your views about the activities of psychologists concerning issues related to nuclear weapons and nuclear war. As of yet I have not received your completed questionnaire. This study is being undertaken to help answer questions raised at professional meetings and in journals concerning the propriety of professional activism by psychologists in this area.

I am writing to you again because of the significance your perspective has for this study. Your name was drawn at random from the 1988 Membership Register of the American Psychological Association (APA). This study is being conducted under the direction of Dr. Christopher Borman in the Counseling Psychology program at Texas A&M University, and your completed questionnaire is important for the results to accurately reflect the views of the membership of APA.

A replacement questionnaire and prepaid return envelope are enclosed for your convenience. Your responses will be treated with complete confidentiality, and all data will be group analyzed only. At no time will your name be placed on the questionnaire. The identification number on the front of the questionnaire is for mailing purposes only. If you would like to receive a summary of the results when the analysis is complete, write "copy of results requested" followed by your name and address on the back of the return envelope. Please do not put this information on the questionnaire itself.

Your cooperation is greatly appreciated for the success of this project, and I send you a final note of thanks for your time and effort.

Sincerely,

Bob Parker
Doctoral Candidate

APPENDIX F

CSPP
CALIFORNIA SCHOOL OF PROFESSIONAL PSYCHOLOGY

BERKELEY
FRESNO
LOS ANGELES
SAN DIEGO
PRESIDENT'S OFFICE

BERKELEY CAMPUS
1900 ADDISON ST.
BERKELEY, CA 94704
(415) 548-5415

September 3, 1987

Mr. Bob Parker
Counseling and Assessment Clinic
701 M. T. Harrington Center
Texas A&M University
College Station, TX 77843

Dear Mr. Parker:

I apologize for the delay in responding to your letter of July 9. You certainly have my permission to reproduce for use in your dissertation either the 14 item activism scale described in the Werner and Roy (1985) article, or the longer activism scale that is enclosed. I'm sending two copies of the 58-item scale. One could be used as a master for making copies for distribution. The second is marked to indicate which are the "pro-nuclear" items and which are the "anti-nuclear" items. For any given behavior (e.g., sending a telegram to a lawmaker) the two items appear successively, but the "pro" item in each set comes first only half the time. The Journal of Personality Assessment article explains how to combine people's numerical scores into unidirectional activism measures, a bidirectional activism measure, or a "magnitude of activism" measure.

Good luck with your dissertation. If you do use my measures, I'd appreciate your sending me a copy of the dissertation's abstract.

Sincerely,

Paul Werner

Paul D. Werner, Ph.D.
Associate Professor

PDW:us
enclosures

WRIGHT STATE
Wright State University
Dayton, Ohio 45435

School of
Professional Psychology
513/873-3490

May 27, 1988

Bob Parker
701 Cherry Circle
College Station
Texas 77840

Dear Bob:

Enclosed are copies of the Psychologists' Attitudes and Activities Regarding Nuclear Arms manuscript and a copy of The Nuclear Freeze Resolution: A Question of Empowerment manuscript. Thought you may also be interested in the latter; it was published as a comment in 1987(?) in AP.

In regard to the psychologists and nuclear arms survey, you have my permission to use items directly from the survey.

Best to you in your important work.

Let me know if I can be of further assistance.

Sincerely,

Stephen C. McConnell, Psy.D.
Associate Professor

SCM/lg

Enclosures

University of Richmond, Virginia 23173

Center for Psychological Services

May 25, 1988

Mr. Bob Parker
701 Cherry Circle
College Station, TX 77840

Dear Mr. Parker:

I hereby grant to you permission to use any and all items from my survey of psychologists' nuclear war attitudes (Polyson, Stein, & Sholley, 1987). I'll look forward to learning the results of your study.

Sincerely,

James Polyson, Ph.D.

VITA

NAME: Robert Edward Parker

PLACE OF BIRTH: Bronx, New York

DATE OF BIRTH: January 18, 1953

PARENTS: Harold and Miriam Parker

EDUCATION:

1974 B.A. Sociology
State University of New York
Binghamton, NY

1977 M.S.W. Virginia Commonwealth
University, Richmond, VA

PAST POSITIONS:

1986-1988 Staff Clinician, Counseling and Assessment Clinic, Texas A&M University

1985-1986 Graduate Assistant, Department of Educational Psychology, Texas A&M University

1979-1985 Counselor, Hanover Family Counseling Center, Ashland, VA

1979-1984 Coordinator of Alcohol Education, Capital Area ASAP, Richmond, VA

1977-1979 Clinical Social Worker, Richmond Metropolitan Hospital, Richmond, VA

1977-1979 Coordinator of Alcohol Education, J. Sargeant Reynolds Community College, Richmond, VA

Permanent Address: 144 S.W. 332nd Place, #2806
Federal Way, WA 98023