

**Using Psychology to Help Abolish Nuclear Weapons:
A Handbook**

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Introduction

This Handbook is designed to provide information about the potential contribution that psychology can make in our efforts to abolish nuclear weapons. It is supported by the Society for the Psychological Study of Social Issues and is produced under the auspices of Psychologists for Social Responsibility (a member of the Abolition Coalition). Dr. Marc Pilisuk, co-chair of the PsySR Action Committee on Global Violence and Security is conducting the project with the assistance of Jamie Rowen.

The goal for this brief handbook is to be useful for the following audiences:

- Abolition coalition activists and organizers,
- Peace movement activists,
- Supporters of other progressive causes,
- Psychologists who wish to apply their professional knowledge to the task of abolishing the dangerous threat of nuclear weapons, and
- Any member of the public concerned with preventing nuclear war.

Abolishing nuclear weapons is a complex and multidisciplinary task. Since attitudes• and behaviors of people are involved, psychology may have something constructive to contribute. Our intentions here are to share some knowledge and ideas to increase the efficacy of people and groups working to abolish or reduce reliance on nuclear weapons and to remind psychologists of some handles for professional involvement in this issue. The Handbook allows you to look up a general group that you might wish to understand or to influence. It also includes a list of psychological concepts that can be applicable to the tasks of both understanding and action in the human response to weapons of mass destruction. These terms may be helpful for psychologists and others to frame• discussions of nuclear weapons policies. The symbol • indicates a term elaborated in the list.

Mental Health Benefits of Activism

A number of studies support the view that participation in an activist group is beneficial to one's mental health and can serve as an antidote to depression• and despair•. Participation in activity with others to control the proliferation of the most destructive weapons known can represent a confidence in overcoming deeply entrenched giants. It can make people more powerful in matters that count in their roles as parents and as citizens and give them a psychological sense of community and of empowerment•. Psychological health requires such feelings of efficacy. Good mental health is not the absence of problems but rather the capacity to work on them constructively. Large threats to humanity can only be addressed by cooperative action and by working together with other caring people. This can be as rewarding as it is empowering•. Cooperative action encourages creativity and aligns people with what is healthy in the world.

Compelling Issues with Psychological Aspects

Human beings limit their attention to information that they can assimilate into their existing systems of belief and values. Some issues appear to be quite salient and relevant to commonly held values and beliefs.

The morality of threatening to use weapons, now many times more powerful than those that destroyed Hiroshima and Nagasaki, is clearly questionable.

Nuclear deterrence is a tragic failure if the threat does not actually prevent an attack. To work, it requires good communication, which is unlikely during a crisis. In the minds of many people, nuclear weapons were justified to deter a nuclear attack from another nuclear power by the threat of "mutual assured destruction." This only works if (A) your opponent is sane and does not wish to die, and (B) you know the return address of those who delivered the weapon. MAD clearly will not work well in the 21st century.

3) Humans with inadequate equipment and pushed to make rapid decisions are likely to make bad ones regarding the source of, or the intention behind, a nuclear attack

(E.g., retaliation following an accident would mean escalation). Most nuclear weapons and missile systems remain in US and Russian possession. However, there are now many nuclear powers from which an attack may originate. Aging Russian systems of control for launching missiles pose a high degree of danger. Nuclear weapons launched by other nations could be mistakenly detected as coming from the US, thereby precipitating a Russian nuclear response. As horrible as nuclear terrorism would be, the nuclear destruction of a single city pales in comparison to cataclysm which would be unleashed by an accidental nuclear war between the US and Russia. People need time to process the possibilities for human and mechanical errors. Taking weapons off hair-trigger alert gives people more time to consider their information and options.

4) Threats against leaders of nations fearing attack increase the paranoia.

Without the adherence to non-aggression treaties, countries with nuclear capabilities, like North Korea or Iran, have incentives to develop weapons to deter an attack. Threats against these states can make leaders defensive. Any actions by a nuclear power to build new weapons or threaten their use weaken a nation's responsibilities under the nuclear non-proliferation treaty. Weapon development in one nation reduces the incentives for other nations to accept nuclear non-proliferation. As long as we believe that only a few nations have the "right" to maintain nuclear arsenals, then there is no hope that the NPT (Nuclear

Proliferation Treaty) will survive. Leadership by major nuclear powers is essential to maintain multilateral relationships that can reduce levels of threat.

5) Postures of force are typically perceived as intent to use force

NPT already appears toothless to leaders of those states who are told, "it is immoral for you to possess one nuclear weapon" by nations which have tens of thousands of nuclear weapons. The upholders of the nuclear status quo will tell you that it is "a question of intent"; i.e., that the "rogue nations" seeking to obtain nuclear weapons are dangerous because they intend to use them. However, possession implies intent. Possessing hundreds of ICBM's tipped with nuclear warheads implies intent. Possessing a fleet of Trident subs which silently patrol the seas with thousands of nuclear warheads implies intent. If we have no intention of launching a nuclear attack, why then do we keep thousands of nuclear warheads at high-alert status 24/7?

Even if they are unlikely to work, missile defense systems can signal an indication of US intention to use nuclear weapons without risk of retaliation. The message sent by such programs increases threats to leaders in other countries. Expressed Intentions are often not accepted on face value. Stretching to understand the views and the culture of an adversary is essential to understanding "why do they hate us?" Understanding what adversaries think can avoid war. Saving lives is realistic, patriotic and a shared value.

6) Proliferation is frightening

More nations with nuclear weapons programs means more scientists and engineers with critical information about nuclear weapons, making it more difficult to control that knowledge. Allied nuclear nations can turn into adversaries. The more nations, the more likely to find these people assisting the nuclear weapon capacity among other nations and risking the use of nuclear weapons by extremist groups. Those who focus only upon new nuclear weapon states ignore the most important and enforceable way to eliminate the nuclear weapons threat, by demanding strict adherence to the Nuclear Non-Proliferation treaty by all nations. The treaty requires that nuclear powers refrain from any new weapons development and negotiate in good faith the elimination of existing stockpiles. As long as we believe that only a few nations have the "right" to maintain nuclear arsenals, then there is no hope that the NPT will survive.

7) Martyrs are willing to sacrifice their own lives to inflict harm on enemies.

Hence, their cause cannot be deterred by threats since they are already willing to face death. Threats to destroy opponents with "usable" nuclear weapons, violent actions against terrorist groups, and the abuse of prisoners in interrogation are sure ways to increase the number of martyrs willing to inflict acts of terror. Threatening words and actions promote the recruitment of people who will retaliate with anger and make the world more dangerous.

8) Enemy images • When a group feels threatened, its leaders shape the image of the “enemy”.

The process of "enmification" is fueled by a variety of factors, including ingroup insecurity and its members' desire to bolster collective defenses against the threat. The exaggeration of the enemy's threat can promote a particular political agenda, as well as support powerful military and corporate interests. Enemy images are often used to justify military interventions, e.g. demonization of a "rogue state" is often a prelude to such steps.

In order to challenge an irrational exaggeration of the enemy's threat and diabolical nature, activists need to target the promoters of such enemy images, not the ingroup per se. If a clear distinction between an administration, corporation, or officials (e.g. in the DOD or DOE) is not distinguished from the country, the activist may be seen as unpatriotic. For example, the concept of the U.S. as a people embodying certain principles can be separated from the concept of the U.S. as its current administration. The interests of corporations such as Lockheed-Martin, General Electric, Halliburton, or Bechtel can be presented separately and distinguished from the public interest. The role of corporate military profiteers, their cost-plus contracts, no-bid contracts and profit pyramiding through sub-contracts, all stand in sharp contrast to the loss of lives by soldiers and civilians in acts of war.

9) Contamination from nuclear wastes or accidents stems from greed and from assumed certainty in systems actually subject to human error.

The contamination and the exposures from Hanford, Rocky Flats, Oak Ridge and Chernobyl continue to produce leukemia, still births, and genetic deformities. Nuclear weapons development, due to faulty provisions to control toxic chemical and radioactive waste, can kill even if the weapons are never used. This danger stems from greed and underscores the certainty that systems, designed by humans, are subject to human error. Under-funding clean-up and lowering standards for safety, problems often associated with greed, are compelling issues because of the particularly greater risks to children.

10) Community protests do not always effectively demonstrate tradeoffs to local residents.

The money moving from communities to fund weapons programs does not come back to the community. Education and community services are being cut with painful consequences. Activists can help to focus public concern by providing clear information about how much tax money is going from their city or community for weapons and how that money could provide, at the local level, for school programs, hospital emergency services, child and older adult services, and drug abuse programs.

The Psychology of Specific Audiences and Constituencies

A) Political Leaders and Public Officials

Leaders elected to the Senate or to Congress represent large constituencies of individuals unknown personally to them. While congressional and senatorial offices provide some services to individuals with a grievance, their psychological distance from the people who must vote for them is often great. They have personal relationships with their largest donors and the agenda of these donors is often pre-occupying. These same donors provide even more extensive support for lobbying efforts. Such efforts assure access and, in many instances, the revolving door makes former public officials and retired military officers ideal links for corporate donors to affect both executive and legislative decisions. Lobbyists often provide the documentation for decisions that then become policy, often with wording provided by the lobbyists.

In the area of major weapons procurement, the federal government is the sole customer and the products often involve secret, classified dealings. Corporate sponsors also provide tax-exempt support to non-profit think- tanks. These organizations employ scholars who provide rationales for weapon systems and assure distribution of pro-military policy reports to legislative staffers. These same corporate sponsors of think tanks also provide support for campaigns of elected officials and also give legislators an opportunity to get federal monies into their districts. The mind-set of the officials may well be infused with assumptions about the value and the inevitability of nuclear weapons and delivery system preparedness. "Groupthink"• contributes to the untested assumption that military measures are the basis for security.

The language of such reports is typically" decontextualized "•. It is abstract, often using insider terms to describe weapons and warfare scenarios. Reports are devoid of any context that might include the human impacts of casualties. The reports are sometimes abetted by statistical accounts that convey a tone of professional competence. A larger value of competition• in the culture helps the political leader to accept a game theory• inspired analysis that identifies adversaries and defines the task as beating them. The formal framework of game theory• is not actually used, but weapons lobbyists and many political leaders assume that the policy task is to find the appropriate moves to best an enemy who is determined to win over one's own side. Political leaders find advantage in identifying enemies, arousing fear• of enemies and supporting means to defeat them. Once the game-conflict mode of thinking is assumed, the strategies are presented as rational moves to maximize both safety and competitive advantage. Concern over casualties is viewed as if it were irrational mourning for the loss of pawns in a chess game when the objective of winning should be foremost. Moreover, media reports often equate massive contracts for defense spending with security or even with supporting our troops, providing little incentive for elected members of Congress to oppose any weapon system.

Political selection rewards persons with ability to attract affluent supporters and people who are concerned with acquiring and maintaining status and power. Like all persons, political leaders rely upon appraisal of a close network of colleagues and supporters, not only for their material or financial support but also for the validation of their core beliefs• and their positive self-concept•.

In organizational settings, like a congressional or executive office, control over the flow of information is built into the system and power reflects the ability to penetrate that flow of information and to establish an ongoing channel for information and advocacy for other views. Whether such alternative views can be entertained relies to a major degree on the demonstration of a viable constituency behind them.

Some implications of the above analysis are:

- ✓ Legislators need to be approached consistently rather than sporadically.
- ✓ Established links with legislative aides can be useful and need to be nourished. Some elected public officials are willing to have an aide meet regularly with a group of academic or other specialists in an area of concern.
- ✓ Visits are typically short so they should be well planned with detailed information packets available for aides to read.
- ✓ Human stories from within a legislator's geographic area are very powerful.
- ✓ Documenting the vested interests (psychological as well as economic) of pro-weapons development advocates may help to document the potential bias in information that a decision-maker has received.
- ✓ Provide elected officials with the opportunity to have their responses on an issue circulated to a community group or carried in a local newsletter. This offer can sometimes induce attention to an issue.
- ✓ Inviting a congress member to participate in an event (or be part of panel) can build ties and may succeed in showing constituency concerns about an issue, even if the member does not ultimately attend.

Comparisons of existing policies with the positions taken by organizations like the Union of Concerned Scientists, Physicians for Social Responsibility, Psychologists for Social Responsibility, the Institute for Policy Studies and many of the non-profit organizations associated with the Abolition Coalition, may help to indicate that there not only are alternative policies, but also a constituency behind such alternatives.

B) Reaching The Media on Nuclear Weapons Issues

Most Americans get their information about the world from television. Many validate the reality of events by whether they were seen on television and many evaluate the importance of events by how long an item runs on TV or commands newspaper headlines. A pro-corporate ideology holds that individuals and not corporations should be responsible for matters of health. Exercise and watch your diet messages are much more frequent than calls to ban, or even require labeling of, carcinogens in food products. This is similar for education -- Pass the tests rather than provide resources to increase learning. Regarding the environment, we hear "recycle" rather than, "limit wasteful or dangerous production." The nuclear threat is typically not dealt with, but where it is, the message is similar. "Prepare your household for a disaster" rather than "demand that the threat be removed." The pro-corporate bias in the media is a reflection of media ownership with direct implication for nuclear issues. Nuclear power and weapons contractors, General Electric and Westinghouse, for example, are now the parent companies for NBC and CBS. Independent media, present a different picture but to a much smaller audience. Framing• of issues, so that they fit into prevailing assumptions is important. Frequently, the media will repeat the frames• of the DOE: E.g. "The risks• are all in the acceptable range;" "This is only a small percentage of the radiation from natural background sources." Some alternative ways of framing• are possible. E.g., "A physician's group warns that the radiation releases will create 1,000 cases of childhood leukemia and 1200 cases of skin cancer;" "A group of radiation survivors say the risks• are just not acceptable."

The media often portray activists, even when they have mobilized many thousands of people in a demonstration, as poster wielding rabble-rousers. The media do not offer sufficient opportunity for protest organizers to present a full explanation of their concerns.

First hand reporting has diminished in news coverage. Most reports are from the PR officers of major government agencies and corporations. Other items to be included must often meet criteria of sensation, conflict, mystery, celebrity, deviance, tragedy and proximity as criteria for what is to be considered newsworthy. Awareness of these criteria for inclusion can help progressive groups to frame• their own messages.

People working in mainstream media have often been exposed in their educational background to values of truth and integrity in reporting. Nonetheless, they work within institutions that provide a groupthink• mentality to the legitimacy of sources of information. Releases by spokespersons from government or industry frequently replace direct information about events. Inquiries providing direct challenge to powerful interests are often minimized and can result in limited access for reporters to get information from government or corporate officials. Some journalists are openly embedded into selected streams of

information and others have accepted remuneration for promoting a particular bias. Progressive dissenters can help to counter impressions from such biased sources by exposing the ties that bias some journalists.

Alternative media, progressive magazines and websites can offer important outlets for relevant information about the abolition of nuclear weapons. But these do not typically reach the larger audiences of the mainstream media. They can, however, provide the data that individuals and groups can use for informed dissent. Equally important, alternative media keep activists informed about the size, vitality and creativity of protest activities and movements for progressive agendas. Such information helps to avert feelings of despair• that one's efforts may be trivial.

One important point of entry for anti-nuclear groups is to work with health spokespersons who are called frequently to advise people on how to beat the odds when faced with cancer or birth defects induced by radioactive or chemical contaminants. The opportunity may be present to raise the issue on how to *change* the odds by reducing the risks from these contaminants or weapons.

Despite the enormous budget for weapons development, the daily operations of awarding contracts, research, and stockpile safety are not big news items. Occasionally an accident, a major violation of secrecy, or an act of revealed corruption creates a small public window to a set of transactions that typically go unnoticed. These incidents provide some opportunity for media coverage. Framing• the issues for public interests and concerns is always helpful.

From the perspective of activists concerned with danger of nuclear weapons, there are relatively few media events that are presented. In recent times the exceptions have been to call attention to the dangers of nuclear weapons but only when they are in the hands of adversary nations and when their potential use by "terrorists" is being used to support particular governmental priorities. This may provide some opportunity for well-informed groups in the Abolition coalition to earn invitations to bring in the issue of nuclear non-proliferation. The options include writing letters to the editor, calling in to radio talk shows, and composing Op-Ed pieces

Activists may view media as a way to impart information or as an opportunity for advocacy. Media advocacy goes beyond the customary imparting of information to raising questions about underlying causes and offering people opportunities for involvement. The national media watch group FAIR, has been offering well-documented criticism of media bias and censorship since 1986. They provide key questions to identify types of potential media bias. Their website and that of Psychologists for Social Responsibility, and Media Watch Project are all helpful resources for providing corrective feedback to biased media reporting.

C) Involving Community Activists in Peace and Nuclear Disarmament Activities

Psychology can help us understand what drives the activist community and may contribute to strategies to enhance the efficacy of community activity. Some activist groups have face-to-face meetings in particular communities. Some are affiliated with public interest groups and some with professional societies. Activist groups often help transform the private concerns of participants into public issues for policy remediation. Most are issue oriented and some work with coalitions of related groups. Their types of activities frequently depend upon their tax code status (e.g. non-profit educational, religious or legal defense groups). Members bring their particular interests and talents to address a problem in the community. The motivation is sometimes for ideological commitment to ameliorate suffering or to remove danger to others. It can also be to build something new and better. Some work with a sense of obligation or even compulsion; others are able to find joy, companionship and meaning in their activist work. The appeal for many is that activism offers a rare opportunity to involve oneself in activities that address one's moral ideals. The commitment may have a religious or a secular foundation but is typically supportive of the individual's positive self-image•. Activists do not settle for absorbing themselves in feelings of helplessness• or for defining their lives solely in terms of self-advancement, making money, or enjoyment and escape. For many there is a spiritual component in attaching themselves to larger forces of helping and renewal.

Social action can include anything from a letter or phone call to a legislator to joining in a protest movement. The diversity of actions and of people presents challenges to focusing on particular tasks or goals. Different talents add resources. Yet different motivations sometimes produce inter and intra-group conflict. (See section on Resolving Conflict in Activist Groups)

The activist community includes:

- 1) Individuals threatened by nuclear waste in their communities,
- 2) Professionals or students who study the economic and health dangers of nuclear proliferation,
- 3) Individuals who want to be part of the activist community and may have little knowledge or experience in activist work,
- 4) Community members who have a long history of activist work and remain committed to their ideals and values.

People directly threatened by radioactive or toxic chemical dangers are likely to experience a need for immediate action. Yet, they may find it difficult to mobilize an endangered community. Residents in some endangered neighborhoods may represent less powerful segments in society and will use activism to manifest their sense of empowerment•. Powerless individuals often create their identity as a community group only in opposition to or conflict with

groups that are more powerful than themselves. A particular plant or facility is often the target.

Frequently facility management and local health agencies try to pacify concerns and to minimize perceived risks. Newfound sources of contamination could lead to plant closings and the threat of losing a community's primary source of employment, or making worthless an individual's heavily mortgaged home. Sometimes a local group of concerned people must do its own investigations to determine the extent of risk. In this activity, links with researchers in universities and others providing legal assistance may be useful. Even with these obstacles, health risks present an opportunity to engage people who have not before been politically active.

Individuals in the second group (professionals and students) are well educated. Some are employed in careers related to the area of their concern. These individuals may also be in the Group 4 category (long term involved activists) or they may not see themselves as activists. Some professionals may be wary of the term "activist" as the media often portray activists in a negative light. Some are prone to speak or to write only as professionals and find little time for egalitarian participation in social action groups. Others may find talking with ordinary people to be a rewarding break from their demanding professional work. Some professional groups like The Union of Concerned Scientists take on long-term objectives, like global warming or nuclear disarmament. They provide excellent information but typically are unavailable for action in local communities. Even local academic groups are prone to have too many chiefs and planners and too few people to carry out the next small steps of calling a press conference or visiting a legislator. Typically groups show differences over whether to take modest steps that might gain broader support (signing a petition) or more radical steps that might bear moral witness (blocking a train carrying nuclear wastes). Group members sometimes differ on the appropriateness of coalitions with other groups. Group success can be measured against the ability to generate public visibility on an issue, the mobilization of pressure for change and the creation of an enduring group of committed people. Some of the most successful groups are able both to engage broad support for their major activity and to accommodate and encourage individual initiatives and creativity as well.

The third group (individuals looking to become involved), may often be found among students at all levels and among retired people. The important concerns here are outreach (direct peer contacts and visible announcements) to let them know where and how their energies can be used. New activists can be helped with linkage to existing groups, and by recognition for their efforts. New participants may need a buddy to call and remind them to come again. Some may be less likely to work directly within an organization but may be perfectly willing to contact people through a website or to send letters on their own.

The fourth group (long term activists) has often begun with a particular experience that led them on the path to peace-work. Most activists can recall an experience that led them to recognize their desire to change their community or the world. There are particular moments of insight and personal breakthroughs when individuals will recognize that they want to change something and feel ready to take action. Some will likely be leaders of their organizations as education fosters a sense of empowerment• and long-term activists have the experience and commitment needed for organizing and advocacy work. Long-term activists may provide knowledge and support in the empowerment• of those newly concerned and in so doing may create new activist leaders. There are well developed models for helping a group with a shared concern, identify and prioritize their issues and develop action plans to work on them.

In general, all types of community activists need to maintain their sense of empowerment• through action. The most important element is successful collaboration. Collaboration works best when participants share a goal, when differences are dealt with constructively and joint ownership of decisions is developed. This means that individuals assume collective responsibility and the process of working together is recognized as a valuable component of the group's work. Community consciousness may be seen in the values, visions, communication, awareness, identity•, and affirmation of the given action. Attention to good communication within and between groups pays off in effective actions.

In addition, community activists need to focus on strategies that prevent burnout•; Activists may need support groups to address the challenge of depression• and helplessness•. They also need to develop communication strategies to address a variety of audiences. Community activists can also benefit from evaluating their efforts, goals and strategies.

D) Reaching Those Only Active On Local Issues

A somewhat different group of community members includes those individuals who involve themselves in local issues but are relatively apathetic with regard to national or global concerns. Some are active in certain political arenas and inactive in others. They may not realize that nuclear development affects their daily lives, particularly their economic security. There is a NIMBY, 'not in my backyard' phenomenon. Affluent communities protest the development of a nuclear reactor and leaders have most often built nuclear reactors or waste facilities in poor neighborhoods where people do not have the education or time to challenge the construction.

For people only involved in local issues, the obvious need is to drive home the local implications--the portion of the tax dollar going for nuclear weapons development and not available for the school stop sign, or the local fire department, or drug clinic. The commonly expressed feeling that people are

powerless in dealing with issues affecting change in state or federal expenditures (on weapon development) can be used as a beginning step to encourage coalitions with other schools, clinics, etc., facing similar straits. Joining a coalition can help to redirect some of the energy now spent in competition• for limited community resources to the shared issue, i.e., inadequate local funding is clearly related to inappropriate federal spending on weapons.

E) Burned-out Activists.

Some currently uninvolved people may have once been active previously but either did not see the efficacy of their actions or have lived to see many of the gains undone over time. Others may feel exhausted by the stress of activist work and decide to involve themselves in other pursuits. Former activists rarely need to be convinced about the issues involved. They more frequently need to be acknowledged for both what they have done in the past and for recognizing their need to step back and take care of themselves. Some may be willing to share with activist groups the contemplative, artistic and restorative practices that will help to prevent burnout• in other activists. Some may be willing to donate money but not effort to causes they support. And some may be ready to re-enter the realm of activists in limited or clearly circumscribed ways.

F) Apathetic or Uninvolved Community Members

Without the power to affect social change, individuals tend to internalize their concerns about world affairs. Internalization leads to psychological maladies characterized by denial•, dissociation•, psychic numbing• and a variety of defense mechanisms that hinder community action. Apathy can develop when an individual feels a significant amount of emotional stress and chooses to ignore an issue rather than address the underlying causes of the stress

Apathetic community members are apolitical for a variety of reasons. We distinguish:

- 1) Those who show no interest or concern on any public issue:
- 2) Those who express concerns if asked but feel there is nothing they can do
- 3) Those who have been active to some degree in the past but now feel burned out.

For 1 and 2, many community members are both unaware and uninformed about social action occurring in their community. Many see activism only as it is represented on TV and consider it something irrelevant to the pursuits of their daily lives. Many face real or perceived economic pressures and their lives are consumed by a struggle to work for themselves and their families. Stressful pressures reduce time available for citizen participation and also place high premiums on the use of discretionary time for activities of recreation and escape. Many also lack the formal and informal attachments to people who are in activist groups. With the pressure of daily survival, some are unable to extend their

social networks or recognize a sense of community around issues not of immediate personal concern. Most have never experienced the sense of empowerment• that comes from standing up with others and taking action on a matter of great concern. Many do not believe that they have the power to influence social change and the effects of apathy are self-reinforcing. Apathy increases as community members focus on their individual challenges rather than work together for a cause. Without strong social networks• encouraging participation, many individuals feel alienated• from the political processes that affect them. Ironically, alienation• and apathy contribute to the phenomenon of groupthink• in which the community defines itself by its apathy and learned helplessness•.

Disinterest in larger social issues occurs across all levels of society. However, apathy and despair• are among the psychological scars of poverty. Poverty, in western societies, often bears the stigma of "failure" and reduces the already low norms for expectations of learning about civic participation in the schools. Unequal access to education leaves areas of science and of social policy out of the reach of students from poor communities. Many have not heard anything to refute their assumptions that nuclear weapons are just other weapons rather than devices that can cause destruction of unimaginable magnitude.

An apathetic community is encouraged when political leaders rely on reports from the Department of Energy or the Department of Defense and from scientific experts as they formulate public policy. Many government agency reports are self-serving attempts to continue getting congressional support for work on weapons. Many of the scientists involved have studied in institutions that remove science from its social context. When leaders rely on scientists, they limit the democratic discourse that allows individuals to influence social change.

Moreover, individuals may not know how to involve themselves in politics. Courses in government and civics have been replaced by courses in the natural sciences. Many students and young people have little knowledge and interest in politics and governance. When leaders use decontextualized language• to discuss nuclear weapon developments, uneducated individuals cannot decipher the dangers that may follow. Without the ability to articulate their position, individuals would be hard-pressed to argue against experts who support nuclear weapons development. They trust that experts will be able to offer the best solutions. In addition, decontextualized language• serves to divert attention away from substantial threats. People often hear information about economic indicators but do not know how those indicators affect personal security. Without an educated citizenry, the authoritarian• nature of the political system increases. Poor education and restricted information sources leave community members with less power to influence social change.

Individuals who do not care about larger issues can sometimes be reached by going to the places and networks• in their lives, community colleges, welfare offices, community clinics, shopping malls and particularly churches. They need assurances that your group cares about them and they need easily formulated "memes"• that can be repeated in rap music, church sermons or radio call-in shows.

The Committed Opposition to Changing Nuclear Weapons Policies

We identify three groups actively opposing nuclear disarmament, i.e., radical and evangelical, right wing groups, nuclear weapons developers, and PR practitioners employed by industry and government. We have already described some of those most committed to the idea that nuclear weapons development is needed. They include corporate officials in companies pursuing contracts for such work with the federal government and some military planners, both in the government and employed by think tanks that enjoy extensive support from weapons contractors. Other defenders of nuclear weapons include some scientists and engineers whose life work has been in weapons development. The first line of defense against criticism within the nuclear establishment is through their public relations programs.

G) Radical and Evangelical Right Wing Groups

A group of opponents to nuclear disarmament are found among individuals associated with radical and evangelical right wing groups. Although public opinion generally favors control and reduction of nuclear weapons, there is some vocal opposition among segments of the US public. The description of authoritarian• belief systems• and the family practices that contribute to these modes of thought provide hints to understanding some of public opposition to abolishing nuclear weapons. Less sensitivity to suffering of others, belief in humans dominating nature and identifications with power• are attributes of some followers of extreme conservative ideologies.

These evangelical followers would be very difficult to reach without entering the worlds of churches and well-funded media ideologues who offer a sense of belonging and moral correctness to their lives. Some of them have been attracted to the promotion of nuclear power as safe and needed for economic growth and nuclear weapons development as a moral imperative for the forces of good. Some take extreme stands on traditional family morality and value weapons as a force to destroy those who would violate what they consider sacred. They value infusing literal biblical interpretation in government decisions. This position departs strongly from the rational scientific bias of many in government and industry with the largest vested interests in continuing nuclear weapons programs and who might find the support a source of dissonance,• and

a reason to distance themselves from some of their most devout public supporters.

It is important to make a distinction between those religious believers who may have some dogmatic and punitive tendencies in their background, (overly represented among lower and working class homes), and those who have had these tendencies satisfied by commitments to evangelical organizations. Ordinary people, rich or poor, dogmatic or open-minded, can find reasons to end the nuclear threat. We do need to understand however, that some of the devout opposition can be seen as part of an adaptation to the demands of a complex and competitive society upon them, by joining an ideological religious group that addresses their alienation• and need for belonging.

H) Nuclear Weapons Developers

Nuclear weapon developers are probably the most committed believers in the idea that nuclear weapons development is and will always be needed. They include corporate officials in companies pursuing contracts for such work with the federal government and some military planners. They work both in the government and employed by think tanks that enjoy extensive support from weapons contractors. Other defenders of nuclear weapons include some scientists and engineers whose life work has been in weapons development.

The depiction of Dr. Strangelove exaggerates but also captures an aspect of the motivation of individuals who have devoted their adult careers to the development of nuclear weapons. Most are engineers and physicists although a wide variety of disciplines are represented. Most work within a community of like-minded individuals either within one of the nation's primary weapons research or development facilities or as consultants. All work with security clearances and with instructions regarding the importance of their work and of the security measures used to protect this work from public circulation. Most work on rather specific tasks involving special technologies and special knowledge of applied and theoretical chemistry and physics. Some work in areas in which their knowledge of mathematical models and of computers is applied to problems of risk-assessment• and health and safety. Many have colleagues in private industry and in university laboratories who do work that is related -- but communication is sometimes restricted by the classified nature of their work. While many of them are convinced that their work serves an important national purpose, they are not called upon to defend the broader purposes of nuclear weapons research. That task is left to a public relations division of their agency. In mandated hearings for Environmental Impact Reviews, the procedures are often conducted by outside contractors, typically with little representation from the laboratories themselves.

For those who work in the labs, studies show an in-bred culture within a strong hierarchy of authority that some refer to as the priesthood. Many work on

assigned small portions of a larger project such as the test of a particular weapon. Most may be assumed to be intelligent, technically well educated and oriented toward achievement and success. Many are firm believers that the work they do represents a part of a scientific enterprise and that those who find fault with it are not scientific. The view is enhanced by internal communications employing technical language about the programs in which they work, about environmental safety, and about the organizational regulations that govern their work. They are captive audiences for reports that the Department of Energy wishes to have emphasized, a critical factor in an administration that has shown a propensity for selectively ignoring results of studies that it does not favor. Some weapon specialists feel that issues of the advisability of programs are matters of government decision and that their jobs are merely to fulfill the mandates. At higher levels, however, weapons developers testify and lobby the congress for new and expanded weapon systems. Private weapons contractors are large contributors to electoral campaigns and to think tanks that study strategic conditions and scenarios that would call for greater expenditures for weapons.

Nuclear weapons specialists have trouble recognizing that the shared and assumed values within the weapons labs do not represent a universal reality. The values of the nuclear weapons culture include such assumptions as: Wars are inevitable; national interests justify the use of violent force; the views of scientists are correct; and, the march of technology, despite its casualties, is inevitable. These views may also express deep psychological needs for masculine identity and power and may be reinforced by a clandestine organizational culture with cult-like attributes. With this understanding, we are able to appreciate more fully the “addictive” attachments that such beliefs may hold.

Because opportunities for prestigious and challenging research are relatively rare for nuclear scientists outside of the field of nuclear weapons development, these scientists, the majority of whom are male, are not easily persuaded to question the utility of their work or to leave voluntarily to work on something else. Some of their knowledge is transferable to such areas as nuclear medicine, clean-up of radioactive wastes, and complex computer modeling. Work in areas of alternative energy technology would for many require significant re-training. Yet, as career scientists, many are well aware of such issues as global warming, clean fuel technology, weapons inspection and detection and space technology. Some would likely welcome greater opportunities for open discourse with academic colleagues in University settings. Communication with respected colleagues who hold different views about the dangers of weapons development could provide some source of dissonance for these scientists. Another potential source of dissonance would be the opportunities to show how fanatic religious believers in an imminent Armageddon, who disdain science, are currently providing the political support required for major military spending.

Moreover, while agency materials tend to minimize health and safety risks, some nuclear scientists can be persuaded to take a hard look at the risks of certain weapons and weapons development. Some defect from weapons work at great personal risk to their careers. Acknowledgments of what these defectors have done, particularly from some of their peers, can be very important.

Nuclear weapons scientists want to maintain their status and their social network within the lab as well as maintain their livelihood. Individual nuclear scientists will not easily adopt negative views about the program that supports their social and economic lives. Never-the-less, some do emerge as whistle blowers and defectors.

I) Defectors and Whistle-blowers

Adherence to the prevailing organizational mode of thought often requires minimizing or even concealing the risks involved in weapons development. Whistleblowers may see evidence that the filters in the lab do not protect against radiation and the waste receptors are leaking, despite reports that suggest normal function. Some who may support the overall value of nuclear weapons programs, may none-the-less have serious reservations about the values of a particular program like missile defense.

Therefore, some individuals become strongly aware of the dissonance between norms in their work settings, and their responsibility as knowing insiders of serious risks that are not being addressed. Whistleblowers often face intense pressures to remain quiet when they raise questions internally. For them to raise questions to the public or the press takes great courage. An alternative source of support becomes essential to encourage their participation as whistleblowers.

Attitudes do change. Even modest reservations about work on nuclear weapons, when expressed by nuclear weapons scientists, can be quite a strong influence on the opinions of others. Despite the pressures of groupthink, individuals facing contradictions within their beliefs do sometimes change their views. The Republican governor of Illinois, for example, after examining the evidence on inaccurate and biased applications of the death penalty, was moved by conscience to break ranks with many in his political party in declaring a moratorium on the death penalty. A public relations manager at one of the leading nuclear weapons laboratories was assigned to attend protests and diffuse them. He was instead swayed by the arguments of Dr. Helen Caldicott and left his job to become one of the protestors.

In hearings or meetings between weapon developers and their critics, activists who take a moral stance benefit greatly from seeing informed scientists, lawyers, and former weapon developers supporting their desire to control or abolish nuclear weapons. Respect should be shown for the personal and

vocational difficulties that whistleblowers might face in being associated with opposition to practices in nuclear weapons facilities. A related implication is to realize how important it can be for those whistleblowers who are willing to make their voices public to be linked to others like themselves, to receive appreciation from activist groups without "outing" them before their peers to a degree greater than they would allow. Sometimes a whistle blower may wish to retain a reputation for unbiased judgment and not appear to be associated with dissenting groups. However, whistleblowers sometimes loose friendships and working relationships with peers and activist groups may offer a new set of supportive ties.

J) Public Relations Firms Undermining Social Action

People working for democratic social change should know the often successful ways in which we are targeted for defeat. Denise Deegan, a long time PR professional, summarizes these tactics for other PR professionals who serve corporations and government agencies involved with dangerous activities (fossil fuels, pesticides, genetically engineered foods, nuclear waste, toxic dumps, and animal testing). The view is that active protests such as boycotts, demonstrations, hunger strikes and acts of moral witness offer a threat to business as usual and, even worse, to the bottom line. She demonstrates the techniques for managing and limiting the impact of activists groups. The "good cop/bad cop" tactic, offering conciliatory discussions to some factions is used for dividing and conquering activists and depictions of tragic human consequences are dismissed as emotional appeals and countered by experts claiming that the risks• are acceptable, without indicating acceptable to whom.

General Hints for Enlisting Support and Participation

- ✓ For the purposes of this handbook, we have condensed materials from several sources into some practical suggestions to engage uninvolved community members:
- ✓ Recognize that anything asked of people represents an intrusion on busy lives.
- ✓ Invite people to participate on terms providing careful boundaries so they will not again be overwhelmed
- ✓ Indicate that very small steps do add up. Even signing a prepared post card or a petition gives encouragement to others and lets the nuclear weapons establishment know that it is being watched
- ✓ Include fun activities, humor, and catchy memes or metaphors in demonstrations and posters

- ✓ Clearly present nuclear weapons development as an issue that affects the individual directly. One can point out the declining resources for schools or after school programs, the increased tax burden or other manifestations of the resources diverted to fund nuclear weapons programs. Individuals will be more likely to work for an issue that directly affects them.
- ✓ Present a variety of program options. Some people may want educational programs to empower• them. Others may prefer letter writing campaigns or other ways to express themselves. Individuals need to believe that any and every action is a valid way to contribute.
- ✓ Set clear, tangible goals that will not overwhelm individuals. Some people may be turned off from action for fear that they will feel overwhelmed. Offering simple steps will encourage individuals to continue their work.
- ✓ Utilize rewards, particularly recognition, in order to motivate community members. Rewards can come in the form of material or verbal encouragement.
- ✓ Meetings, particularly including new participants, must fulfill social needs, People like name recognition. Introductions that include neighborhood locations can encourage car-pooling and friendship ties. Assignments even to small tasks (like calling one person with a reminder of an event); add to the sense of contributing. And never underestimate the value of refreshments.

Resolving Problems in Activist Groups

Activism in groups comes with problems. Participants bring different experiences that affect how they relate to fellow activists or to others whom they find either apathetic or in disagreement. Some may feel cowed or even bullied• by the assertiveness of others. Some have greater gifts for the process of working within groups and some are impatient with group progress. Some activists may want to foster a sense of empowerment• in others. Others may be motivated by a desire for power• and may try to dominate their local organization or display their own knowledge and individual abilities. Still others have an overwhelming need to be heard and, conversely, some find it hard to listen and may be impatient with a group process that appears to them to be inefficient in getting external tasks accomplished.

Since most involvement in progressive social change is both voluntary and dependent upon many people, it is important to find ways for the group to recognize and use the talents of everyone. People must make agreements on turns to speak and check-ins are useful to make sure that all who have some current concerns, personal or otherwise, have a chance to share them.

Communication can be aided by recognizing that some topics that come up will have to be dealt with at a later time (or assigned to subgroup to report back) so that the present discussion can stay focused

Differences will arise. In dealing with thorny disputes, trained mediators can be quite helpful and many psychologists would welcome the chance to be asked to help a group whose cause they admire. Some types of mediation have advantages beyond the resolution of a specific conflict and extend into a more transformative appreciation of where others are coming from and what underlying values may be shared despite differences. One place to find a mediator is www.mediate.com. Also, the American Psychological Association, Division 48 (The Society for the Study of Peace Conflict and Violence) has a working group on conflict resolution.

Nuclear Weapons Abolition and Track 2 (Citizen) Diplomacy

Official inter-government communication channels are often constricted for geopolitical reasons. Psychology has been a contributor to many efforts at citizen diplomacy, or Track 2 diplomacy, through which informal dialogues may occur between citizens even while their governments are taking confrontational positions. The value of such dialogues has special relevance to nuclear issues. First a broad base of informed scientists and activists communicating across national borders can help to call attention to issues about nuclear weapons that are being decided without public scrutiny. Second, in times of an escalating threat of use of nuclear weapons, non-official communication sources may provide contacts for information to correct erroneous assumptions about officials, their policies and their intent to use a nuclear weapon. For these reasons, Abolition Coalition members should continue and extend work across national boundaries and with government officials in informal as well as official venues. Letting some domestic officials know, quietly but in advance, that you plan to be meeting with important persons abroad, provides the opportunity for feedback when you return. Cross-cultural visits help to put a human face on people otherwise depicted as “the enemy.”

Relevant Psychological Terms

The following annotated list of terms may be helpful to individuals expressing opposition to nuclear weapon policies. Some psychological concepts can be helpful to understanding faulty assumptions about human behavior in the planning and justification for nuclear weapons. Other concepts may be helpful in describing motivations and vested interests of nuclear weapon advocates. Still others may be useful in understanding citizen potential for involvement and the issue of drawing attention to highly threatening possibilities. Our hope is that activists may find these concepts useful in their own presentations and in their requests to such groups as Psychologists for Social Responsibility, for psychologist participation in efforts to abolish nuclear weapons. They are presented alphabetically, but address four different areas of concepts within individual and social psychology. The four areas are illustrated by the following examples of terms:

- I. Dealing with how beliefs and attitudes about nuclear weapons are formed--Attribution error, belief systems, cognitive dissonance, groupthink, obedience;
- II. Relevant to the motivations of people in the nuclear weapons establishment--Achievement motivation, addiction, aggression and destructive motivation, decontextualized language, game theory, masculine identity, narcissism, patriarchy, professional identification;
- III. Dealing with individual coping with threats--Alienation, death wish and apocalyptic fantasies, denial, desensitization, dissociation, fear-arousing appeals, guilt, habituation, learned helplessness, paranoia, psychic numbing, repression;
- IV. Relevant to people opposed to nuclear weapons--Attitudes, empowerment, diffusion of information, self actualization, social networks.

Achievement Motivation: The desire and tendency to reach difficult and socially approved goals. Achievement motivation has various types. Perhaps the two most widely observed are success-seeking versus fear of failure and intrinsic versus extrinsic motivation (also sometimes called task versus success orientation).

Addiction: An uncontrollable need to persist in an activity. One may be addicted to activities injurious to oneself and others. The same addictive qualities may apply to preoccupation with aspects of one's work or personal life. Bomb building--for income, for professional identity, and for expression of needs for power, is addictive.

Aggression and Destructive Motivation: Humans have the capacity to harm others as a part of their constitutional endowment and a potential to use their cognitive capacities for attitudes of hatred. Aggression is augmented by

frustration of needs. Aggressive motives can be sublimated and channeled into constructive purposes. A distinguished interdisciplinary group of social scientists produced the Seville statement on Violence in which they refuted the belief that war is an inevitable result of human aggression. In fact some cultural settings have had no wars and not even a concept of war in their languages.

Alienation: Withdrawing from people or people's affections. Alienated individuals do not feel connected to each other and, therefore, do not feel inclined to work together even to address such threats as nuclear violence. They will not join groups on their own or form new ones. Alienation may be from work, from family, from community or from one's country. Treating people primarily by an artificial designation as commodities, as consumers or as producers, reduces their humanity and adds to feelings of alienation. People become alienated from governments that they see as irrelevant or dangerous to their needs and from government actions that they see as entirely separate from or antagonistic to their own deeper values. Feeling apart from meaningful participation in the larger world, people withdraw into smaller worlds of their own creation. Alienation is a form of subjugation. Recognition of it can help with understanding that some potential activists are seeking not only changes in policy but also a need for interpersonal and spiritual connection.

Attentive Listening: Much conversation or attempted dialogue results in little actual communication. Hearing the voices of others is a critical but necessary step in efforts to change beliefs and attitudes. The process requires a sincere attempt to get into the shoes of the other person's position, checking to see that it has been fully and accurately understood, and recognizing points of validity or agreement.

Attitudes: A mental predisposition to judge to evaluate and to act. An attitude is expressed by evaluating a particular entity with some degree of favor or disfavor. Attitudes focus on objects, people or institutions. Attitudes typically have four components:

- 1) Cognitions--Cognitions are our beliefs, theories, expectancies, cause and effect beliefs, and perceptions relative to the focal object.
- 2) Affect--The affective component refers to our feeling with respect to the focal object such as fear, liking, or anger.
- 3) Behavioral Intentions--Behavioral intentions are our goals, aspirations, and our expected responses to the attitude object.
- 4) Evaluation--Evaluations are often considered the central component of attitudes. Evaluations consist of the imputation of some degree of goodness or badness to an attitude object. When we speak of a positive or negative attitude toward an object, we are referring to the evaluative component. Evaluations are function of cognitive, affect and behavioral intentions of the object. It is most often the evaluation that is stored in memory, often without the corresponding cognitions and affect that were responsible for its formation.

Attribution Theory and Attribution Error: Explain the assignment of causality to one's own behavior and that of others. According to this theory, people tend to attribute either internal psychological reasons or external causes as the determining factor in behavior. The assignment of cause is typically subject to "attribution error" in which one attributes the positive behaviors by oneself, or significant others, to internal characteristics of the person while one's own negative behaviors are seen as unintended results of external forces. Conversely, it is difficult to recognize good intentions in the positive actions of people who are disliked. The psychological bias is to find external explanation for good behavior of one's enemies but to assign blame for bad intentions if the behavior is negative.

In the politics of nuclear proliferation, this theory applies to the rationalization of political leaders in calling for more nuclear arms. They suffer from the fundamental attribution error that reveals how individuals blame their shortcomings on external causes whereas they may blame shortcomings in others on internal personality traits or malevolent motivations. When a political leader in one country compares nuclear weapon development in his or her own country to that of another, he or she may explain domestic nuclear weapon programs (or missile defense) as safe (due to the peaceful nature of that country) and as a necessary measure to avoid threats from other nations. He or she may denounce another country's nuclear weapons program as dangerous (due to the unstable or problematic nature of that country or country's leaders).

Authoritarianism: A descriptive term for both a nation-state and for an individual personality. The authoritarian personality typically develops in a more punitive and strict family. Punishment is said to create a surface denial of weakness and a repressed rage that gets directed against nature and others who are considered unworthy or evil. Authoritarians show higher levels of death from anxiety. An authoritarian worldview includes an undue respect for authority figures whether in church or in politics, that a punitive attitude toward evil doers, a low tolerance for ambiguity or for fine distinctions, and a tendency to support authoritarian leaders viewed as strong and decisive. Authoritarian nation-states or organizations enforce strong and sometimes oppressive measures against the population. This is distinguished from totalitarianism, a political system in which a citizen is totally subject to a governing authority in all aspects of day-to-day life. Authoritarian administration or governance is considered to be less intrusive than totalitarian regimes and, in the case of organizations, not necessarily backed by the use of force. Authoritarian regimes do, however, limit free thought and action through a variety of coercive measures.

Belief systems: The sets of ideas that guide one's actions and interpretation of events. Belief systems develop throughout one's life as a result of personal experiences, education, and other societal influences. Individuals filter information through their pre-existing belief systems rather than accept the

information at face value. Belief systems of liberals often include a concept of justice are thought to reflect an upbringing that is accepting or non-punitive and tendencies to deny their own aggressive tendencies and capacities to be touched by the suffering of others. Belief systems of conservatives are more likely to include a belief in the inevitability of enemies. The importance here is to appreciate that discrete pieces of information have limited impacts on deeply formulated worldviews.

Bullying: This behavior is the willful attempt to affect behavior and induce submission of another person by verbal threat or actions that cause physical or emotional injury to another person. It may also be defined by an intentional display of force that would give the victim reason to fear harm. Those in power often use bullying to coerce others to follow a particular course of action. Bullying is quite common from the playground and the workplace to international politics. It is likely that specialists in military intelligence and in nuclear weapons experience bullying in the form of pressure from supervisors and coworkers. They continue their work under fear for their professional future and their desire to maintain positive relationships with their cohorts.

Burnout: The process of succumbing to the effects of stress following arduous activity over a sustained period of time, particularly when that activity comes without respite or sufficient compensation. Burnout is always a danger for activists who must work on other jobs beyond their work as activists and who often work against institutionalized opponents who are employed for their work.

Competitiveness and Power Motivation: This describes motivation that, unlike achievement motives, conveys a desire to do better than others. Motivation is extrinsic, based on the actions of another party. One will not be satisfied with work that does not surpass the work or the status of another. Poor whites and followers of extreme fundamentalist groups are sometimes manipulated through this motivation to accept their own harsh conditions with the belief that they are at least better than "blacks."

Cognitive complexity: An aspect of a person's cognitive functioning which at one end is defined by the use of many constructs with many uses in relation to one another and at the other end with few constructs with limited relationships to one another.⁵ The complexity applies to the variety of belief systems and relationships that individuals maintain throughout their lives. Individuals are able to integrate conflicting ideas due to their cognitive complexity.

Cognitive dissonance: This theory, proposed by Leon Festinger⁶, suggests that people often hold conflicting or inconsistent cognitions which produce a state of tension or discomfort also known as "dissonance." People strive to reduce dissonance, often by isolating the dissonant information as an exceptional case, by denying the validity of such information or by rationalizing or reinterpreting the intent of the behavior that has occurred. Hence, killing of civilians, destruction of

homes, torture of people being interrogated and even genocide can be rationalized to provide congruity with beliefs favoring the sanctity of life. Even so, reminders of dissonance may be precursors to change in attitudes. People believe that the prevalence of nuclear weapons gives rise to the threat of nuclear violence. Yet leaders support the opposing view that the development of new nuclear weapons in the US is necessary. The individual may actually change his or her beliefs to accommodate the idea that nuclear proliferation prevents nuclear violence. People may reduce the dissonance by either defining the nuclear danger as coming only from particular states or, conversely, by questioning the validity of what the nuclear developers are requesting. Several cognitive consistency studies suggest that people are capable of compartmentalizing dissonant beliefs and of reinterpreting the motives of actions in order to be consistent with their views of the person who committed the action or who sent the information. The implication of this is that beliefs tend to change not merely by factual refutation, but within a context of beliefs supported by respected others.

Decontextualized language: Language in which meaning is primarily conveyed via linguistic cues, such as cohesion devices, that are independent of the immediate communicative context. Comprehension depends significantly on knowledge of the language used. This language permits rather dry technical accounts of the destructive capabilities of weapons and of the risks produced by their development. Such reports display the psychological mechanism of isolation in which the contexts of the pain and suffering by people are left out of the discussion of costs, benefits and strategies and the technical language convinces people that the matter is one necessarily left to specialists.

Death wish: The belief that people have an unconscious wish to fulfill the ultimate destiny of all living forms. One form lies in apocalyptic fantasies. Fatalism and alienation often contribute to suicidal thoughts as well as to fantasies of engaging in destructive behavior. War provides opportunity to indulge such fantasies in socially sanctioned ways. Apocalyptic fantasies are often found in persons with serious psychiatric disturbance. The prophesied destruction of the world holds promise deep in the unconscious of some people to withdraw from harsh reality and end the pain of unmet needs. Charismatic leaders have been able to lead many followers into a belief in the demise of the evil world and a subsequent salvation of the believers.

Denial: Denial is a defense mechanism in which a person unconsciously rejects thoughts, feelings, needs, wishes or external realities that cause too much distress. People vary in their tolerance for dwelling upon threatening information. But all people reduce the salience of information that is so anxiety inducing as to disrupt the behavior required for daily functioning. Denial may result in people's unwillingness to believe threatening information or in their withdrawal from attention to the information. "That could not be true" or "that's just too disturbing to think about and I can't do anything about it anyway." Leaders may be in denial

that a nuclear attack could occur and that such an attack would do serious damage to their own country. Unconscious processes, like denial, occur typically without awareness.

Collective denial: permits an entire society to negate its past history of using the atomic bomb against civilians or of practicing slavery. The 1995 firing of a historian over his preparing information for the Smithsonian Institute offers an example, of institutional support for denial. The history being uncovered was of scientist and Nobel Peace Laureate, Joseph Rotblat, who worked on the bomb and quit in 1944 over the decision of its use. Denial prevents the re emergence into awareness of unresolved atrocities of the past, thereby precluding attempts at removing underlying guilt, providing opportunities for apology, restitution and forgiveness. Groupthink, defined below, contributes to collective denial.

Desensitization: A method to reduce or eliminate one's negative reaction to a substance or stimulus. This defense mechanism is less severe than denial and can be seen as a reaction from habituation. With long periods between reminders of nuclear war or nuclear accident, individuals will become less sensitive to their fears about nuclear weapons development.

Despair: The condition of having abandoned hope. This condition causes individuals to accept their circumstances passively rather than act to change the situation.

Diffusion of Information and "Memes": The spontaneous spreading of information via social networks. Sometimes with amazing speed, a new gadget, technology or an idea gains widespread acceptance. People who are opinion leaders may be central to the process. The concept of memes is related. A meme is an easily transmittable theme, image or metaphor that moves quickly from one person (or one media source), to another. "Axis of evil", "The peace dividend", "Black is beautiful", "not in our name", "tax and spend liberals", "military-industrial complex", "nuclear free zones", are examples of memes.

Dissociation: To separate from association or union with another. Psychologists recognize several dissociative states in which an individual is removed from ordinary reality and experiences extra-ordinary states of experience. Such states may be induced by drugs, by ritual discipline, by traumatic stress, or by mob hysteria. Dissociative states can be a basis for creativity and for openness to experiences either banned from consciousness or negated by language that does not recognize the experience, or that rejects experience that appears non-rational.

Emotional Intelligence: Emotional intelligence includes an ability to discern one's own feelings and the feelings of other people. Cognitive and conceptual reasoning and understanding present an important but limited comprehension of

the world. Emotional intelligence describes the capacity for appreciation of aspects of our experience that reflect the power of our senses, feelings and emotions to appreciate a wider range of reality. Although often discarded in rational discourse and in military planning, emotional intelligence may often reflect a wisdom of indigenous people or of ordinary people who are not considered to be experts.

Empowerment: Increasing the political, social, or economic strength of individuals or of groups. A sense of empowerment makes individuals feel that their efforts to change themselves or their social reality may be worth the effort. Studies show that participation in group protest activity can be an empowering experience and an aid to preventing or overcoming depression and despair.

Enemy Images: A negative stereotype through which the opposing side is viewed as evil in contrast to one's own side which is viewed as good. Enemy images, when promulgated by opinion leaders, are frequent preludes to hate crimes and to war. The power invested in enemy images is thought to be related to their use as a way to project one's own bad and rejected impulses onto an external source. In polarized conflicts, enemy images of the two sides often look like mirror images.

Fatalism: A doctrine that events are fixed in advance such that humans are powerless to change them. Individuals may believe that there is no hope to stop nuclear arms development. Many believe that their efforts will not make a difference in the community. Individual nuclear scientists may believe that nuclear arms will be created despite their efforts. They may not believe that they can influence the businesses that design and manufacture nuclear weapons. Therefore, they will not put themselves in professional or personal jeopardy and leave their position.

Fear-arousing Appeals: Mechanisms that motivate acceptance of action recommendation through appeals to individuals' fears. Such appeals, particularly when not accompanied by specific information on what preventive actions may be taken, are often ignored or dealt with by denial. Still, fear arousing appeals do generate attention and repetition of them may induce individuals to accept the judgments and behaviors of strong authoritarian leaders whom they trust to provide protection.

Framing: Providing the context for a message. Effective frames fit in with existing belief systems and use easily memorized metaphors.

Game Theory: The analysis of a situation involving conflicting interests (as in business or military strategy) in terms of gains and losses among opposing players. Individuals utilize game theory to decide on a particular course of action. Political leaders often employ game theory in their analyses. They justify their political decisions with respect to the amount of loss for a particular gain. The

model of thought in which situations are transformed into contests of strategy. is widely assumed in business and in foreign policy. The theory requires an assumption that winning, (or minimizing one's losses) is the objective and that a specific numerical value can be placed on each gain and loss. The theory is misapplied when one makes assumptions about the assigned costs of particular moves or decisions. One cannot calculate the cost of loss of human life or the destruction of a city. The type of thinking is also mis-applied when it is used to guide moves in games or situations in which there is no winnable solution. The theory is frequently misused in conflicts in which doing best for oneself requires compromise, conciliation and trust in other players in order to achieve what may be best for all parties.

Groupthink: When people within a group become so consumed with the group, maintaining cohesion, and doing what is important for the group, they often lose their ability to think independently and make sound judgments. Groupthink is made more likely by the tendency of organizations to select like-minded individuals and to exclude contradictory information. Groupthink was recognized in the willingness by officials to reject evidence in the build-up to the Iraq war in order to fit in with the pressures and opinions favoring a preemptive attack. Groupthink has applicability to nuclear weapons planning and development where, in certain circles, the expression of views that nuclear weapons should be abolished is considered unthinkable.

Guilt: Refers to an internalized, and frequently repressed from awareness, feeling of responsibility for some horrific happening. It can be distinguished from shame or embarrassment over having one's unsavory actions exposed before others. Feelings of guilt are often followed by denial or by withdrawal of attention to past atrocities. One might, for example, assume a degree of guilt over one's country's use of the atomic bomb against civilians. Denial may be collective and supported by opinion leaders and the media. With denial there is little guilt experienced over the historical facts of slavery or of the dropping of atomic weapons on a civilian population in Hiroshima or Nagasaki. But the facts while removed from daily discourse are known and the failure to experience and express remorse comes at a psychological and a social cost. Without expression of remorse there is little possibility of forgiveness and reconciliation. Opportunities to learn from those past experiences are missed, resentments remain and people live with a need to keep buried the darkness of their nation's past.

Habituation: Humans grow accustomed to things over time. The tendency to have decreased responsiveness to something is habituation. People may continue to accept the reality of malnutrition in wealthy countries as inevitable. Or they may persist in practices that they know contribute to environmental destruction, because the facts are so commonplace that they no longer command their strong attention. Nuclear scientists may question the risks of

producing nuclear arms until they become habituated to their jobs and forget to question what they are producing.

As nuclear proliferation increases, individuals forget that there was a time before nations' leaders believed that they needed nuclear power and nuclear arms. Leaders may not question the risks of storing nuclear weaponry as habituation leads them simply to accept nuclear weaponry as a fact of national security and nation-building.

Input Overload: A reaction to the limits of the human brain to process data. Input overload is manifested in allocating less time to each input, disregarding low-priority inputs, shifting the burden to the other party in some social situations, screening social contacts, creating filtering devices to diminish the intensity of inputs, and creating special social institutions to handle certain types of interactions.

Judgment under Stress: This theory relates to the challenge of making decisions under pressure from strong stimuli, (both physiological and psychological). Individuals facing challenges often fail to use all available information or to make good judgment when they are under stress.

Learned helplessness: A condition that occurs in laboratory animals and in people after repeated attempts to avoid negative outcomes to one's behavior prove unsuccessful. The response may be an apathetic withdrawal or even a compulsive repetition of failed behavior.

Masculine Identity: A strong association with the characteristics typically defined as masculine, such as the inclination towards competition, aggression, and other traits associated with violence. As leaders are overwhelmingly male, they identify with these traits and express these inclinations in their policies. They compete over their nuclear weaponry and use the threat of violence to meet their needs.

Narcissism: An infantile state of pre-occupation with one's own image and one's own well-being. Aspects of this are carried into adulthood and help to explain selfish and uncaring behavior. Some features of the Narcissistic Personality Disorder include a grandiose sense of self-importance, the expectation to be recognized as superior, preoccupation with fantasies of unlimited success, power, and brilliance, and the belief that one is "special" and unique. The narcissistic personality requires excessive admiration, has a sense of entitlement, and is interpersonally exploitative, taking advantage of others to achieve one's own ends. The narcissistic person lacks empathy and does not recognize or identify with feelings and needs of others. He/she is envious of others or believes others are envious of him/her and shows arrogant, haughty behaviors and attitudes. In a psychological sense, possession of nuclear weapons and the missiles to deliver them enhances the belief in omnipotence

among narcissistic leaders. The behavior of certain political leaders suggests these narcissistic traits. On a wider scale, narcissistic needs among insecure people may be met by identification with the narcissistic behavior of leaders.

Obedience: When one changes opinions, judgments, or actions because of someone in a position of authority. The key aspect to note about obedience is that just because one has behaved or changed in a particular way, it does not mean that one now agrees with the change. Under conditions of authoritative sanction, many people will engage in behavior that would otherwise violate their personal beliefs and values. Having done so, some will feel the need to identify even more strongly with the authorities and to distance themselves from those who may have been harmed by their actions.

Observational learning: The process of acquiring information by observing others. Political leaders formulate their models of governance by observing other leaders, thereby following similar patterns of leadership that perpetuate the idea that nations need nuclear weapons in order to remain influential in the international sphere. New nuclear scientists will tend to follow the model of their cohorts, thereby limiting their ability to challenge the nuclear weapons program. Observational learning includes learning by example. Leaders of non-nuclear nations observe this and other nuclear powers continue development and testing of nuclear weapons in violation of a provision of the nuclear non-proliferation treaty. The diffusion of innovation model explains how individuals adopt specific behaviors as new, widespread and expected practices. For a particular time period, there was a flow of nuclear free zones that were established. As the visibility of a small number of communities adapting this policy became known, the idea spread to a larger numbers of communities.

Paranoia: This is a psychological disorder in which the person has delusions of being persecuted by others or delusions of one's own grandeur. The concept describes a continuum from exaggerated and poorly founded fears that are held by many people, to a state of severe mental disability. Paranoid thinking often comes on gradually and develops into a very complex pattern of thought based on misinterpretations of real events. Leaders may have delusions that other nations pose direct threats or that they should have the strongest nuclear weapons in the world. Paranoid thinking is rampant among powerful nations who fear that less powerful nations will use nuclear arms to gain clout in the international political arena. The term paranoia is sometimes used to belittle fears that are actually justified but denied by others.

Patriarchy: The concept refers to a culture of male privilege and dominance over women. While nuclear weapons can destroy without regard to gender, the developers of these weapons are typically men working in patriarchal settings and with a disdain, in their language and decisions, for weakness that they regard as feminine. To the extent that women are more likely to accentuate

values of caring or of verbal rather than physical resolution of disputes, patriarchy serves to rule out such perspectives.

Post-traumatic stress disorder: Post-traumatic stress disorder is a psychological disorder in which individuals suffer emotional distress from a traumatic past experience or set of experiences. A stimulus that reminds them of the event or events can cause flashbacks and irritability. In light of the recent terrorist attacks, many individuals suffer stress at the thought of nuclear war. In order to protect themselves from emotional distress, they are more likely to avoid thinking about such topics.

Power Motivation: The experienced need for domination and control over other persons and groups.

Professional Identification: Attribution to yourself (consciously or unconsciously) of the characteristics of your profession. Specialization and lengthy time in training, education and socialization into a profession increase the intensity of professional identification. It is a likely attribute of nuclear weapon developers and of military strategists. Professions have self-monitoring standards of ethics, which could become difficult to bear for work seen to be inherently destructive or deliberately disseminating mis-information.

Projection: A mechanism of defense wherein objectionable characteristics of oneself are attributed to others. Those who initiate acts of violence often project their destructive intentions upon some perceived enemy imbued with malevolent intentions and in need of retribution.

Psychic Numbing: A form of desensitization defined by an incapacity to feel or confront certain kinds of experience, due to the blocking or absence of inner forms or imagery that can connect with such experience. The magnitude of a nuclear winter and of the suffering it portends lies beyond the comprehension and the threshold for emotional response for most humans and is met by psychic numbing and denial.

Rationalization: Rationalization: a defense mechanism used when people are not able to deal with the reasons they behave in particular ways. They protect themselves by creating self-justifying explanations for their behaviors.⁹ For nuclear scientists, rationalization serves a large role in the ability to justify the creation of nuclear arms as part of the necessity to maintain peace or the necessity to maintain one's livelihood as a natural scientist when much of the research funding goes to nuclear weapons development.

Reaction Formation: A defense mechanism where unacceptable impulses are converted to their opposite. A person repressing a motivation to injure helpless creatures might, for example, become a strident animal rights activist.

Repetition compulsion: A tendency to repeat the same behavior in a fixated way even when the behavior is not rewarding or even harmful to the individual. The behavior may be alleviating unconscious anxiety over images of even more harmful threats.

Repression: When we have memories, impulses, desires, and thoughts that are too difficult or unacceptable to deal with, we unconsciously exclude them from our consciousness. The threat of nuclear war may be too daunting to most community members, leading them to repress the thought of nuclear war. As activists must confront the thought of nuclear holocaust in order to advocate for disarmament, community members may not be willing to act.

Risk Assessment: Procedures used to determine the dangers involved in a particular course of action. The formal procedures used often depend upon extrapolations from limited data or guesses since some outcomes, like the health effects from radiation exposure may not be known for many years after the exposure. Risk perceptions are the risks as experienced by individuals. Many scientists eager to affirm the safety of their work are satisfied to show very low rates of risk and to consider those calling attention to dangers that have not yet been proven to be unscientific. Many community members however, respond to their own experience of a sick or dying child or even a pet. Such people would much prefer the precautionary principle in which the industry must first prove that the product or the procedure is safe before it reaches the community.

Self-Actualization: Maslow's concept of the tendency and the desire for one to fulfill one's potential as a human being. The theory describes a hierarchy of human needs seeking fulfillment. Basic physical and security needs must be met to enable people to move on to higher levels. On the highest level these include needs to improve the well being of humanity

Self-concept: This is the total of all thoughts and feelings we have about ourselves as objects or beings. Efforts to maintain a positive self-concept sometimes require biased interpretations of one's own behavior. If a political leader relates his or her self concept on a national level, identifying with the self concept of a nuclear nation, he or she may try to protect the national identity by maintaining a nuclear weapons program. Moreover, nuclear disarmament may threaten the self-concept of a nuclear nation, limiting leaders' attempts to pursue disarmament. A positive self-concept is dependent in part on the positive regard of a network of other people.

Shadow Aspects of Personality: Jungian psychology uses this concept to describe the dark and unknown aspects of personality. The shadow is created by the oppositeness of life and the need for choice. The shadow is made up of the "unchosen" choices. The imperfectability of human nature is sometimes used as justification for the suspicion that any agreement, based upon trust, will be undone by unscrupulous individuals.

Social Networks: Groups of people connected through various social familiarities ranging from casual acquaintance to close familial bonds and including common membership in groups. Networks are important in the validation of beliefs. In confronting threats of great magnitude, support networks can be invaluable. The network concept also provides a useful way to study the interconnections of powerful weapons contractors to military and other government officials. The exposure of such typically clandestine connections can help people grasp the disparities between interests that serve a military and corporate elite and those that serve human needs.

Sublimation: The substitution for one behavior that cannot be fulfilled with another that provides an alternative form of satisfaction. A need to avenge a long past criminal attack against one's family might be sublimated by the work of an aggressive criminal prosecutor. Work on destructive weapons may sublimate needs to be personally destructive.

Super-ordinate goals: The necessity and opportunity to work together on a project with a shared objective has been shown to ameliorate hostile enemy images and harsh conflict. The concept has relevance to the association of all nations to agree upon means to eliminate the threat of nuclear annihilation. In a monitored and enforced agreement, there are no "rogue states." Since the development of nuclear weapons requires a great deal of supportive infrastructure, the cooperation of governments would be sufficient to keep such weapons out of the hands of fanatic groups. Hence there are strong reasons for supporting international collaborative agreements whether on reduction and refraining from development of nuclear weapons, or on controlling the spread of AIDS, stopping global warming, safeguarding air and rail travel etc.

Transformative Mediation: Among the many form of conflict resolution that are alternatives to winning by force, mediators, acting with no power other than to set the terms of communication, are often used. In transformative mediation, gains other than reaching a particular settlement are acknowledged. These include enhancing participants' understanding of the issues, increasing respect among parties to a conflict, getting better articulations of positions, and engaging more fundamental issues that underlie the conflict. The model of mediation with transformative goals can be useful in handling disputes within coalitions.

For More Information – Website Directory:

Abolition 2000- www.abolition2000.org--This organization is made up of over 2000 organizations in 90 countries working on a global treaty to eliminate nuclear weapons. The website provides opportunities for action and networking. They send daily updates to members of their list serve and provide up to date information on nuclear policies.

Center for Defense Information- www.cdi.org--Provides fact sheets and current information on the US military. The organization offers the perspective of persons with a military background on alternatives to current military policies. The website includes links to publications and policy papers on military affairs.

Department of Energy- www.doe.gov--Offers current and past information about nuclear energy policies and nuclear weapons policies. Provides links to press releases, congressional testimony and DOE offices and facilities.

Global Resource Action Center for the Environment- www.gracelinks.org -- Grace works to coordinate research, policy and grassroots community action on areas related to sustainability, replacing nuclear power, and eliminating nuclear weapons.

Nuclear Age Peace Foundation- www.wagingpeace.org– www.nuclearfiles.org- this organization provides current information and web links regarding nuclear weapons, peace and war, international law and security and nuclear weapons and waste. It sponsors various awards, contests and speakers on peace activism. NAPF offers a free monthly e-newsletter, The Sunflower, which people can sign up for at the waging peace site. They have also initiated a “Turn the Tide Campaign” to chart a new course in US nuclear policy at the waging peace site.

Physicians for Social Responsibility- www.psr.org--A public policy organization that offers resources for health professionals and community members to advocate on behalf of the environment, promote health and safety, and deter violence. Founded by Dr. Helen Caldicott, this organization began as a vehicle for medical professionals to expose the physical dangers of nuclear proliferation. The website offers links to local and international chapters of PSR. It provides current information about nuclear weapons policies and links to recent publications.

Psychologists for Social Responsibility- www.psysr.org--This organization offers resources from its action committees to foster social action and advocacy among its members and the general public. It includes links to media, and to other peace groups and professionals involved in the peace movement.

Tri Valley Cares- www.trivalleycares.org--This organization provides information

about nuclear activities at the Livermore labs. It offers links to anti-nuclear and anti-war political organizations as well as information about current actions. The website also provides current analyses of nuclear weapons and Department of Energy policies.

Union of Concerned Scientists- www.ucsusa.org--Offers resources for scientists and community members on issues of food, vehicles, environment, energy and security. The website provides links to current articles on science related policies. It offers resources for those interested in networking on issues of security and nuclear deterrence. This group works on issues of missile defense, nuclear terrorism, nuclear weapons, space weapons, U.S.-China relations, international cooperation, and scientific integrity in government..

United Nations Institute of Disarmament Research- www.unidir.org--provides the United Nations with information from intergovernmental organizations, the diplomatic disarmament community, and governmental ministries. Its mandate is to offer scientific research to UN policy makers working on issues of nuclear disarmament.

Western States Legal Foundation- www.wslfweb.org--This organization offers research and analysis on current nuclear weapons policies. It provides links to other anti-nuclear organizations as well as web resources on military spending, weapons inspections and other current nuclear-related issues.

www.mediate.com www.mediate.com--lis a major source of listings for mediators.

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