

Nonkilling Psychology

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Center *for* Global Nonkilling



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“Since wars begin in the minds of men, it is in the minds of men
that we have to erect the ramparts of peace.”

(Preamble of the UNESCO constitution, 1945)

Contents

Introduction

- The Psychology of Killing, Nonkilling, and Personal Transformation 11
Daniel J. Christie

Psychological Causes and Consequences of Killing

- Neurobiology of Human Killing 23
Tracy A. Bedrosian and Randy J. Nelson
- Natural Born Nonkillers 43
Marta Miklikowska and Douglas P. Fry
- Nature and Nurture 71
Rubén Ardila
- Psychology of Nonkilling 85
Rachel M. MacNair
- Dehumanization as a Prerequisite of Atrocity and Killing 107
Michael B. Salzman
- Some Causes and Consequences of Direct and Structural Violence 125
Mitch Hall and Marc Pilisuk

The Prevention of Killing: From Interpersonal to International

- From Empathy to Altruism 145
V. K. Kool and Rita Agrawal
- Nonkilling Empathy as a Natural Human Tendency 175
Luis Moya Albiol and Joám Evans Pim
- Prevention of Homicide by Treating
Proactive Aggression in Schoolchildren 189
Annis Lai-chu Fung and Bess Yin-hung Lam

8 Nonkilling Psychology

Overcoming Psychological Obstacles within the Movement toward a Nonkilling World <i>Joseph de Rivera</i>	213
Peace Theory and Activism in an Imperialist World <i>Milton Schwebel</i>	245
Personal Transformation: From Killing to Nonkilling	
The Transformation from Holocaustic Intergenerational Trauma to Nonkilling Intergenerational Wisdom <i>Danica Borkovich Anderson</i>	269
An Educational Model for Teaching a Nonkilling Ethic <i>Todd Junkins and Darcia Narvaez</i>	295
The Deconstruction of Enemy Images for a Nonkilling Society <i>Adriano Zamperini, Luca Andrighetto and Marialuisa Menegatto</i>	321
The Psychology of Nonviolence and Nonkilling <i>Daniel M. Mayton II</i>	341
Lifeism and Nonkilling <i>Anthony J. Marsella</i>	361
Conclusions <i>Piero P. Giorgi</i>	381

Introduction



The Psychology of Killing, Nonkilling, and Personal Transformation

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This content of this book owes its inspiration to Glenn Paige who developed the simple and elegant concept of a “nonkilling society.” According to Paige (2009: 21):

A “nonkilling society” ... is a human community, smallest to largest, local to global, characterized by no killing of humans and no threats to kill; no weapons designed to kill humans and no justifications for using them; and no conditions of society dependent upon threat or use of killing force for maintenance or change.

Paige is a political scientist but his perspective invites a multi-disciplinary approach, especially when he points out that “nonkilling” is a concept that can be applied from the “local to global” level. The discipline most represented within the covers of this book is psychology, a perspective most often associated with the individual level of analysis. Psychology is an appropriate lens for understanding killing. After all, acts of killing involve human cognitions, feelings, and actions, all of which fall within the purview of psychology. Moreover, human psychology is involved in killing whether the level of analysis is interpersonal or international. As the preamble of UNESCO noted in 1945: “... since war begins in the minds of men, it is in the minds of men that the defences of peace must be constructed.”

While psychological processes are important, psychologists recognize that additional variables (e.g., economic, political, environmental, etc.) emerge and psychological analyses cannot fully apprehend the complexity of killing behavior without taking into account other levels of analysis that are associated with other disciplines. The human psyche and killing behavior are always embedded within a particular social, political, cultural, and historical context. At the same time, killing behavior can be examined on a more mi-

cro-level that brings into question the neuropsychological substrates of overt actions. Not surprisingly, today, psychologists view individual behavior, including killing, as a result of the interaction of micro-phenomena at the biological level of analysis, and macro-phenomena that include multiple layers of environmental influences. In this sense, psychology is well positioned as a foundational discipline that sits between micro and macro-level influences. Unlocking the mysteries of psychology ought to give a great deal of insight into the prevention of killing.

The book is organized into three sections: (I) psychological causes and consequences of killing; (II) The prevention of killing: from interpersonal to international; and (III) personal transformation: from killing to nonkilling.

The first section of the book unlocks some of the mysteries that bear on the question of why humans kill and what happens to humans when they do kill another human being. The chapters are organized from micro to macro-levels of analysis. The first chapter, for example, examines the neurophysiological basis of killing while the last chapter in the first section of the book examines macro-level factors that contribute to killing on a large scale. What unites the chapters in the first half of the book is the general proposition that humans are not genetically wired to kill (see also *Seville Statement on Violence*, 1990 [1986]), and although killing can be complex with multi-level causes, it is possible to prevent killing by intervening and removing the causes of killing.

Psychological Causes and Consequences of Killing

The first chapter focuses mostly on the individual unit of analysis and examines what we know about the neurobiological basis of killing. An underlying assumption is that the establishment of a nonkilling society will require an understanding of the neurophysiological mechanisms that explain killing behavior in order to develop preventative approaches. In this chapter, Bedrosian and Nelson review research on factors that predispose individuals to aggression and killing. These factors include early experiences in human development, the interaction of genetic and environmental influences, and personality dispositions. Interventions to prevent and mitigate aggressive behavior are also reviewed and underscore the importance of adequate diet and nutrition, and minimizing stress particularly during early developmental stages. Bedrosian and Nelson offer a key distinction between reactive (impulsive) types of aggression and instrumental (planned) types of aggression, noting that differential diagnosis may be important and correspond to different neurophysiological correlates and intervention strategies.

Chapter 2 continues to explore biological influences on killing behavior, but this time using a natural selection framework. The question raised in the chapter is the same as the title of the chapter: Natural Born Killers. The authors, Miklikowska and Fry, critique an influential proposition in evolutionary psychology, namely, the contention that killers-have-more-kids than nonkillers, and therefore there is a selection bias that favors the propensity to kill. The heart of their critique focuses on methodological and replication problems. They also point to rival research evidence that identifies many societies that are peaceful. Perhaps most importantly, the authors provide cogent evidence for an interpretation that is exactly opposite of the famous “killers-have-more-kids” hypothesis. Based on their analysis, the weight of the evidence supports the “killer-have-fewer-kids” hypothesis, which makes more sense from an evolutionary perspective. The authors also suggest that “killing” is more dependent upon psycho-social factors than biologically-based predispositions.

Continuing with the theme that both genetic and environmental factors influence killing behavior, Rubén Ardila (Chapter 3) discusses the nature and nurture of killing behavior. His chapter rightly notes that most of the organized inter-group violence that has taken place in recent years has occurred in developing parts of the world, very often between rival ethnic groups. Ardila also points out that a tremendous number of lives are lost in low-income countries because of a lack of resources and therefore, the inability to satisfy basic human needs. Lifespan is short in many parts of the world and especially in sub-Saharan Africa and parts of Asia and Latin America. There are enough resources to satisfy everyone’s needs worldwide, but not enough to satisfy everyone’s greed, to paraphrase Gandhi (Gandhi, 1993). Hence, the problem in developing parts of the world is mainly “structural violence” rather than direct forms of violent episodes (Galtung, 1969). Ardila does not use the term “structural violence,” but other authors in the book use the term and also address the problem (see chapters by Hall and Pilisuk, and by Schwebel). As Ardila points out, the distinction between direct and structural violence is important because worldwide, more people actually die from structural rather than direct forms of violence. After examining some of the psycho-social causes of killing, Ardila concludes with a proposition that finds wide agreement among psychologists, namely that humans are not genetically programmed to kill, nor is killing inevitable. Instead, human behavior is largely learned and therefore we see great variability and flexibility in people’s actions. Because of learning, humans are capable of violence but also harmony and solidarity.

In Chapter 4, MacNair continues with the theme that humans have to learn to kill and are not naturally well equipped to kill and then identifies some of the consequences of killing. MacNair's work demonstrates that when humans do engage in violence, they pay a psychological price. For many years, psychologists have documented the adverse effects of experiencing violence. Post-Traumatic Stress Disorder (PTSD) is a well-known diagnostic category in the manual of mental disorders and has received a great deal of attention in the United States especially in recent years with the wars in Iraq and Afghanistan. MacNair's work has documented the existence of a cluster of adverse responses that occur not only when someone observes violence but also when someone perpetrates violence. Perpetrator-Induced-Traumatic-Stress is a cluster of symptoms that can be distinguished from the symptoms associated with PTSD, the latter of which for example might characterize victims of concentration camps. The upshot of MacNair's work is that killing is not good for the human mind, a proposition that calls into question the whole notion that humans are well suited for killing.

As MacNair's research shows, when humans kill, they often suffer psychological consequences. Therefore, it is not surprising that people often "dehumanize" someone they are about to kill. In Chapter 5, Salzman examines some of the psychological states or mechanisms that are responsible for dehumanizing others. Salzman's review of the literature focuses on two psychological mechanisms that often trigger the dehumanization process: fear and threat. Of course, threats are an important precursor of fear. Threats can arise in many ways: drawing on intergroup threat theory (Stephen and Mealy, 2012), Salzman notes that some threats are realistic (e.g., competition for a limited resource necessary for survival) while others are symbolic (e.g., threats to cultural symbols). There are other kinds of threats reviewed in the chapter. A key proposition discussed in the chapter is "mortality salience" which is to say, any circumstance that brings to mind our own mortality (i.e., mortality salience) can be a catalyst for our dividing the world into US vs THEM and aggressing against those who threaten our very existence. Salzman's covers a lot of ground in this chapter. I might add that although there are many conditions that lead to dehumanization and violence, the reverse also occurs, that is, dehumanization is often a consequence of violent acts as we seek to justify our behavior. An assumption throughout the chapter is that, theoretically, it should be possible to prevent killing and atrocities by disengaging mechanisms, such as threats and fears, responsible for dehumanization. Interrupting the process of dehumanization would seem to be a worthwhile endeavor to prevent violence;

so too would be processes that “humanize” an enemy though there is very little research in psychology on the “humanization” process.

Dehumanization can be directed at individuals and also entire groups and even nations. In Chapter 6, Hall and Pilisuk’s analysis focuses on killing at various levels, from micro to macro. They point out that worldviews are not simply a mirror on “reality” but instead are socially constructed by powerful forces. Today, the Western worldview is dominant and promotes the capitalistic values of material acquisition, individuality, inequality, and advancement of the interests of the powerful sometimes through military means. In order to advance the interests of the powerful, soldiers are needed and enemies must be created and dehumanized. As noted in other chapters, these soldiers who do the bidding of those with political and economic power wind up suffering with PTSD and a host of other debilitating conditions that affect their well-being. Hall and Pilisuk suggest there may be many reasons and justifications for killing. They point to research that suggests a child who is subjected to harsh and punitive parenting can grow up to see the world as a hostile place that requires obedience to authority and punishment of evildoers. Moreover, those who control the dominant narrative can advance their power and justify violence on a global scale by appealing to national interests and creating threats and enemies. Hall and Pilisuk substantially enlarge the discussion of killing by pointing out that although it is estimated that about 1.5 million people are killed worldwide each year, there is more to killing than direct violence because most of the people on the planet are killed by structural violence, that is, violence that is built into the structures of societies. These structures, which kill 14 to 18 million people each year, do so indirectly through the deprivation of human needs. Psychologists who identify themselves as peace psychologists have only recently taken up the issue of structural violence and the imperative to promote social justice (Christie, Wagner, and Winter, 2001).

The Prevention of Killing: From Interpersonal to International

Like many of the chapters in the book, Kool and Agrawal (Chapter 7) offer a wide ranging discussion of psychological research, but in this instance the thrust of the chapter is on positive cognitions and emotions that prevent killing. If fear, threats, anger, disgust, hatred, and dehumanization play a role in killing, perhaps empathy, trust, forgiveness, gratitude, compassion and other positive emotions play a role in the prevention of killing. Moreover, if there is an evolutionary basis for nonkilling, then there ought to be

some neurophysiological evidence for nonkilling. Accordingly, Kool and Agrawal review some of the neurophysiological evidence for positive emotions such as “trust.” They focus especially on research that demonstrates a link between the hormone and neurotransmitter, oxytocin, and the development of trust. Oxytocin, they point out, is central to the establishment, maintenance, and enhancement of trust as well as the ability to infer emotional states in others. The authors also examine neurophysiological research in relation to “empathy.” The structure of the brain is consistent with a distinction between affective (feeling based) empathy and cognitive (perspective taking) empathy, with the former associated with the limbic or emotional center of the brain and the latter involving higher, frontal lobe mechanisms. In addition to neurophysiological research, Kool and Agrawal touch on a wide range of other topics including prospect theory and empathy training. They conclude with a useful discussion of Gandhi’s views on empathy and nonkilling. Just as the first chapter in this book offered some compelling evidence for a neurophysiological basis of killing, the current chapter provides evidence for a neurophysiological basis of affective and cognitive states that are associated with nonkilling.

Chapter 8 by Moya Albiol and Evans Pim continues where the previous chapter left off by examining some neurophysiological substrates empathy. They begin by noting that empathy is an important mental and emotional state for the inhibition of aggressive behavior. Just as dehumanization is often a cause and consequence of killing, the ability to feel what others feel and take their point of view makes it difficult to inflict harm on them. The authors examine controlled experiments in which neuroimaging techniques have identified neural circuits involved with the expression and regulation of empathy. In particular, they note the important role of the prefrontal and temporal context as well as the amygdala and other regions of the limbic system. Interestingly, because of neuroplasticity, these same structures are implicated in the development of indifference to others. The heart of the chapter can be found in their contention that empathy is a result of normal human development when nurtured by prosocial human models that effectively activate healthy empathic brain structures. In contrast, normal human development can be disrupted and neurophysiological structures damaged when there is a lack of such models or when the developing child experiences some form of neglect or maltreatment. Accordingly, the presence of prosocial human caregivers and models, particularly during infancy and early childhood, would seem to be an important condition to prevent violence and encourage the development of nonkilling individuals and societies.

In Chapter 9, Lai-chu Fung and Yin-hung Lam also focus on individual aggression but in this instance, they are looking at approaches that work with children in order to prevent them from becoming adults who engage in homicidal actions. Hence, as in all of the chapters in this section, the focus is on the prevention of killing. On the surface, child-based interventions to prevent later homicide might seem unrelated to the larger project of building nonkilling societies; however, even though homicides are relatively low frequency events, they still constitute a form of killing, the reduction of which is consistent with moving closer to the ideal of a nonkilling society. In their chapter on the Prevention of Homicide, Lai-chu Fung and Yin-hung Lam distinguish between reactive and proactive forms of aggression, the former of which is typically a reaction to provocation while the latter is often referred to as planned or instrumental aggression. Their focus is on the prevention of proactive aggression, the kind that is deliberate, goal-oriented, and very often associated with psychopathology. In addition to describing the features of proactive aggression and suggesting some links to psychopathology and homicide, they discuss several potential interventions with emphasis on Cognitive Behavior Therapy.

In Chapter 10, de Rivera takes on some of the macro issues related to killing and equates a nonkilling society with a “culture of peace.” de Rivera describes the structural basis of a “culture of peace” (e.g., human rights, gender equality, etc.) and some of the barriers to realizing such a culture. Tensions in the peace movement are also identified in this chapter. For instance, there are tensions between those who would like to see top-down leadership in the peace movement versus bottom-up change. Tensions also exist between those who place priority on harmony and compassion versus raging against social injustices. The thrust of the chapter proposes ways to attain a culture of peace through the development of caring communities and perhaps most importantly, the construction of powerful national organizations that can promote a positive agenda that makes it clear what the peace movement is for rather than what the movement is against. Part of the problem is that the peace movement has a number of agendas that are interrelated. Accordingly, de Rivera underscores the value of having a central organization that leads, integrates, and promotes the multiple agendas of the peace movement.

Schwebel (Chapter 11) also takes on the problem of forming an effective peace movement. The chapter begins with the problem of imperialism, a policy which creates death and destruction on an enormous scale as nations seek to consolidate and advance their interests through the use of military force. Schwebel offers a brief history of British and American impe-

rialism and then reviews some psychological perspectives that have been developed in an effort to understand and harness the forces of imperialism. Three psychological perspectives that were developed during the Cold War include: Graduated and Reciprocal Initiatives in Tension Reduction (GRIT); strategies to induce cooperation; and interactive conflict resolution (or problem solving workshops). In the post-Cold War period, Dynamical Systems Theory has been developed in an effort to explain how conflicts escalate and deescalate. Schwebel examines the value of these psychological theories in relation to the US invasion of Iraq and concludes that none of the theories would be powerful enough to prevent the invasion because the economic motive (primarily oil) trumps psychological motives. Schwebel then offers a range of reasons why a permanent peace movement needs to be institutionalized. This chapter resonates well with de Rivera's call for an organization that would coordinate and promote peace agendas. Schwebel concludes by identifying three psychologically-based research programs that could advance a peace agenda that would grapple with the problem of imperialism in the international system.

Personal Transformation: From Killing to Nonkilling

The four chapters in the final section of the book examine various aspects of "personal transformation," which refers to the kind of changes an individual could make to move in the direction of a nonkilling orientation toward the world. In Chapter 12, Anderson begins with an examination of the problem of individual trauma as a reaction to violence but is most concerned with a larger level of analysis, the community level, and the process by which personal trauma is transmitted from generation to generation. The intergenerational transfer of trauma can lead to repeated cycles of community violence across generations and therefore, the resolution of trauma is essential for nonkilling. Anderson writes with conviction, having served as a Psycho-Social Victims Gender Expert for the International Criminal Court at The Hague. In her role as an Expert, Anderson observed and worked with women who witnessed or were victims of crimes in Africa, Bosnia, Chad, Congo, India, Sri Lanka, and Sudan. Anderson provides a moving account of the survivors of the Bosnia-Herzegovina war who rebuilt their lives by engaging in indigenous rituals and in particular, the kolo, a physical activity and collective pattern of movement in which community members dance and recreate collective memories of community identities rather than dwelling on the debilitating details of individual identity and the

brutal experiences of war. From Anderson's perspective, these indigenous methods, practices and customs are important for communities to interrupt the intergenerational transmission of trauma and cycles of killing.

In Chapter 13, Junkins and Narvaez also examine personal transformation when they propose an educational model that emphasizes a nonkilling ethic. After laying a considerable amount of groundwork on the ethical roots of killing and nonkilling, the authors present a framework that includes the four ethical skills that are thought to be important to prevent killing. The four skills and some components of each are: (1) Ethical Sensitivity, which involves empathy, perspective taking, and the control of bias; (2) Ethical Judgment, which includes the understanding of ethical problems and being able to reason ethically; (3) Ethical Focus, in which a code of ethics becomes part of one's identity and ethical actions are given priority over personal needs and goals; and (4) Ethical Action, which means knowing and implementing ethical actions through the resolution of conflict, courage, and leadership. According to the authors, all four skills are highly interdependent and required for ethical behavior.

In Chapter 14, Zamperini, Andrighetto, and Menegatto pick up on the topic of "enemy images" and examine some ways in which enemy images are formed but also suggest some ways to diminish enemy images. Like dehumanization, enemy images can be applied to individuals, groups, or entire nations. In this chapter, the authors point out that the psychological literature on the causes of enemy images generally falls into three categories: (1) Motivational studies that examine the development of enemy images and individual differences in the extent to which enemy images are present; (2) Cognitive studies which document biases in attention, perception, memory, and other cognitive processes; and (3) Social psychological studies that demonstrate social influences on the development of enemy images. The authors also examine ways to reduce enemy images, and again, most of the research falls within a few categories: (1) Enhancing empathy and trust through perspective taking and role playing; (2) Promoting intergroup contact under conditions that favor the improvement of relations; and (3) Creating situations that encourage individuals to enlarge their identity so they begin to see themselves as belonging to a superordinate category that includes outgroup members. Taken together, the chapter provides an overview of psychological research that bears on both how enemy images are formed and people can deconstruct enemy images.

Mayton also discusses the importance of personal transformation with emphasis on the development of a nonviolent orientation toward others. In

Chapter 15, Mayton begins by discussing some distinctions between non-violence, nonkilling, and pacifism. These distinctions are following by a review of contemporary theories of nonviolence that span levels of analysis: intrapersonal, interpersonal, societal, international. Mayton also reviews various ways of measuring nonviolence as well as some correlates of nonviolence, and especially relationships between nonviolence and values. For instance, individuals who score high on a scale of nonviolence tend to score high on self-transcendent values, such as benevolence and universalism, and they also tend to place a high priority on conformity values. Mayton also examines a number of personality traits that are associated with nonviolence. He concludes with a number of important questions for future research on nonviolence. To be clear, nonkilling and nonviolence are very similar constructs though a precise formulation of conceptual and empirical similarities and differences has yet to be worked out.

Picking up on the notion of enlarging our identity or sense of who we are, in Chapter 16, Marsella challenges us to transform our personal identities so that we come to appreciate not only the value of human life but more broadly, the value of life itself. Moreover, Marsella is suggesting that killing can be mitigated by adopting a sense of identity that goes beyond the personal, cultural, or national, to include identification with life itself, what he calls "lifeism." Clearly, from a lifeism perspective, humanity is only one manifestation of the larger category called "life." From Marsella's perspective, when we identify with life, we go well beyond the usual categories of ethnic and national identification. As our core identity becomes "we are life," we commit to preserving life. A key question is how to move people beyond the usual categories of identity.

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Psychological Causes and Consequences of Killing



Neurobiology of Human Killing

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Introduction

Human violence and killing present a major public health problem to society, with the FBI reporting in 2009 over a million violent crimes (i.e., offenses involving force or the threat thereof) in the United States alone. Murders comprise more than 15,000 of these crimes. Clearly, violence presents a grave challenge to society, in terms of the destruction of lives, consequences for the people involved, and the billions of dollars invested in the criminal justice system each year to deal with this problem.

In the past, violence and killing has been wholly the domain of the criminal justice system; however, as other disciplines have expanded to include the study of violence and killing, a deeper understanding of this behavior has emerged. Neuroscience research, in particular, has recently made strides in delineating the neural mechanisms underlying violent behavior and in identifying risk factors for extreme violence. As neuroscience advances our understanding in these areas, we may look toward biologically-based interventions to prevent and treat the extremes in behavior which lead to killing. Such research is integral to the shift toward a nonkilling society.

Research in both humans and nonhuman animals has been essential to progress in this field in order to understand the mechanisms of violence and killing. Human research is useful for its direct application to society; however, these studies are limited to establishing correlations between biological metrics and behavior, whereas animal research makes it possible to determine causative mechanisms of behavior. Most human studies are retrospective (i.e., assaying genes or hormones in violent offenders well after the behavior has ceased), but animal research allows studies of changes in hormones or neurotransmitters during the aggressive act itself.

Studies in humans and nonhuman animals employ several different techniques as well. Human studies seek to understand genetic influences on violent behavior through the use of genotyping, family histories, and twin studies.

Animal research uses gene knockouts, inducible gene expression, and direct quantification of gene expression levels to determine causative effects on behavior. To understand brain functioning, human research uses imaging techniques such as fMRI or PET to correlate neural activity with behavioral tendencies. Animal research allows direct manipulation of brain function via pharmacological, stimulation, or ablation methods to determine the corresponding behavioral output. Other animal techniques such as microdialysis allow for the measurement of neurotransmitter levels in specific brain regions during performance of aggressive acts. Taken together, these research techniques in humans and nonhuman animals complement each other by addressing both the neurobiological mechanisms of violence and the direct human correlates.

This chapter will summarize major findings from the field of neurobiology of aggression, focusing on the distinction between adaptive aggression and violent behavior, and their neural correlates, in both humans and nonhuman animals. We will also discuss factors which predispose humans to engage in violence and killing, and explore preventative strategies and interventions derived from biological research. We do not necessarily argue that a biological approach is better or necessarily more effective in treating or preventing killing behavior, but in addition to sociological or psychological perspectives, biological tools will provide a useful and necessary complement to other approaches.

Aggression and Violence Defined

In both human and nonhuman animal research, it is important to distinguish between aggression and violence (Haller, 2006). Aggression is composed of a suite of adaptive behaviors expressed during conflict with a specific, functional aim. In nonhuman animals, the goal of aggressive displays is often obtaining resources or defending territories or social status. Once the goal has been attained, aggression ceases. In many cases, aggression is “ritualized”, meaning that escalation to overt physical fighting is unnecessary to resolve the conflict (Natarajan and Caramaschi, 2010). Certain social signals, such as increasing the apparent size of the animal, are sufficient to assert dominance. In this way, aggression rarely leads to death or serious harm and serves as an adaptive strategy for obtaining resources and status. Similarly, humans may display some amount of aggression in certain situations of conflict or competition; however, this is importantly distinguished from violence. A child may push another on the playground, but this is typically considered aggression, not violence.

Aggression that is uninhibited, escalated beyond normal limits, and expressed with the intent to harm or kill, is considered separate from other forms

of aggression. This specific behavior is known as violence; that is, extreme behavior expressed with the intent of causing serious damage (e.g., death) to another individual (Anderson and Bushman, 2002). Humans and nonhuman animals can both display such escalated and pathological behavior. Research, which will be discussed in detail below, suggests that violence is comprised of a very different set of neurobiological processes than adaptive aggression.

Another important distinction to make is between the two subtypes of violent behavior. In humans, violent behavior can be displayed as either a reactive or instrumental subtype. These two subtypes speak to the different motives underlying the behavior and research suggests there may be different neurobiological correlates here as well. The first subtype, reactive violence, comprises violence that is impulsive and usually not pre-meditated. It may be explosive and occur out of anger or rage. The second subtype, instrumental violence, is controlled, purposeful, and goal-oriented. It can be thought of as “predatory” and is usually planned (Nelson and Trainor, 2007). As an example of each, a gang member who gets angry during a conflict and suddenly pulls a gun on another individual is displaying reactive violence. In contrast, a jealous husband who murders his wife’s lover would be demonstrating the instrumental subtype.

Because different types of behavior have distinct neural correlates, distinguishing between each form of aggression and violence is crucial to discerning the underlying neuroanatomical and neurophysiologic contributions to violence versus aggression. These differentiations are important to understand for developing interventions and preventative strategies specific to the behavior expressed by an individual.

Biology of Aggression

Neural Correlates

In many circumstances, particularly among nonhuman animals, displays of aggression are normal and adaptive responses to environmental challenges. Scarce resources, competition for mates, and territorial defense provoke aggressive encounters between individuals. In rodents, this type of adaptive/functional aggression generally begins with inputs from the olfactory bulbs, which are sent to the medial amygdala (MeA) and then relayed to the bed nucleus of the stria terminalis (BNST), medial preoptic area (MPOA), lateral septum (LAS), anterior hypothalamus (AHA), ventromedial hypothalamus (VMH), and periaqueductal grey (PAG) via many nonlinear interconnections. Functional or structural abnormalities within these regions or connections may increase the tendency toward violence (Davidson, Putnam and Larson,

2000). For example, electrical stimulation of the AHA increases male aggression (Kruk et al., 1984) and the LAS, BNST, AHA, and MeA are strongly activated during aggression encounters (Delville, De Vries and Ferris, 2000; Kollack-Walker and Newman, 1995). A similar set of structures have been implicated in human aggression using brain imaging and lesion studies (Anderson and Bushman, 2002). Under normal circumstances, the human frontal cortex provides significant inhibitory input to the hypothalamus and amygdala, major aggression promoting regions, to check unnecessary or abnormal aggression.

Communication within this neural circuit is modulated by a number of neurotransmitters, many of which have been directly linked to the behavioral output of heightened aggression. Briefly, low levels of serotonin (5-HT) have been linked to impulsivity and aggression. Treatments that enhance 5-HT signaling reduce aggression in many diverse species, from lobsters to mice and even humans (Simon and Lu, 2005). For example, administration of 5-HT precursors, SSRIs, and agonists of the 5HT_{1A} and 5-HT_{1B} receptors, which are expressed throughout the brain aggression regions, significantly reduce aggression in rodents (Manuck, Kaplan and Lotrich, 2006). Genetic manipulations of the 5-HT system produce similar results. Rodents lacking the serotonin transporter (5-HTT), responsible for removing serotonin from the synapse, show reduced aggressive behavior (Holmes, Murphy and Crawley, 2002). Mice lacking functional expression of the 5-HT_{1B} receptor have heightened aggression compared to wild type mice (Saudou et al., 2002).

The mesocorticolimbic dopaminergic system is implicated in many motivated behaviors, and appears to function in promoting aggressive behavior. Antipsychotics acting at the D2 receptor have long been used to treat aggression in humans, and in mice antagonists of the D1 and D2 receptors also reduce aggression (de Almeida, et al., 2005). On the other hand, mice with a knockout of the dopamine transporter gene, resulting in increased extracellular dopamine concentrations, have heightened reactivity and aggression (Rodríguez, 2004). Dopamine is involved in the rewarding or reinforcing effects of many stimuli, such as food and sex, and seems to play a similar role in relation to aggression. Mice trained to poke a target in order to gain access to an aggressive encounter with another mouse will no longer instigate access to the mouse when treated with dopamine receptor antagonists aimed at the nucleus accumbens, an important reward region in the brain (Couppis and Kennedy, 2008).

Nitric oxide, a gaseous neurotransmitter, has been linked to impulsivity and aggression when available in reduced amounts in brain tissue. Because nitric oxide has a very short half life *in vivo*, it has been manipulated indirectly by its synthetic enzyme, neuronal nitric oxide synthase (nNOS). nNOS is responsible for

the transformation of arginine into nitric oxide and citrulline in the brain. Genetic knockout mice lacking the gene for nNOS are highly aggressive (3-4 times more so) compared to wild type mice (Nelson, et al., 1995). Reducing nNOS activity via pharmacological methods produces the same effects, implicating reduced nitric oxide in the brain with heightened aggression (Damas, et al., 1997). Studies in humans have similarly linked low activity polymorphisms of the nNOS gene to impulsive behavior and violent crime (Reif, et al., 2011).

Heightened GABAergic activity has also been linked to high aggression in mice and rats. Drugs that increase GABA activity in the septal forebrain provoke aggression in rodents (Miczek and Fish, 2006). Benzodiazepines and barbiturates, which are allosteric modulators of the GABA_A receptor, reduce aggression at low or high doses and increase aggression at moderate doses (Miczek, et al., 2002). Interestingly, GABA-receptor agonists used in humans reduce aggression in many cases; however, tend to incite aggressive behavior in some people, probably due to individual differences in the GABA receptor system.

Monoamine oxidase (MAOA), a metabolic enzyme located mainly in catecholaminergic neurons, serves to break down 5-HT, dopamine, and norepinephrine (Shih, Chen and Ridd, 1999). MAOA may influence aggression by affecting the balance of neurotransmitter concentrations. A genetic mutation resulting in low MAOA activity is positively correlated with impulsive aggression among males of one Dutch family (Brunner, et al., 1993), and mice lacking the MAOA gene have exaggerated aggressive responses, despite increased 5-HT concentrations (Cases, et al., 1995).

Steroid hormones are one of the most widely known modulators of aggression in humans and animals. The concentration of hormones synthesized in both the brain and periphery, the expression levels of steroid hormone receptors, and the situational context all have an impact on determining what behavior is produced (Trainor, Sisk and Nelson, 2009). Typically androgens are positively associated with aggression, though there are exceptions. In many species, aggressive behavior increases around the time of puberty, when the testes mature and androgens begin to be secreted. In adults, aggression and testosterone are high during the breeding season when competition for territories and mates is high. Reducing testosterone by castration greatly reduces male aggression, and testosterone replacement restores the aggression. In humans, high testosterone is associated with victory in a competitive situation. Some studies, although there is disagreement, have found that high blood testosterone is also related to aggressiveness in incarcerated individuals (Ehrenkranz, Bliss and Sheard, 1974; Kreuz and Rose, 1972). Interestingly, androgens may be converted to estrogens in the brain via the

aromatase enzyme, and estrogens are important to aggressive behavior in a variety of species. In mice, knockout of the aromatase gene leads to decreased intermale aggression (Matsumoto, Honda and Harada, 2003; Toda, et al., 2001). Additionally, aggression is positively correlated with the number of estrogen receptor- α positive cells in several regions of the neuroanatomical aggression circuit (Trainor, Greiwe and Nelson, 2006).

This complex interaction of brain regions, transmitters, and hormones modulates a fine balance of behavioral output. Dysregulation at one or more levels of this system can result in abnormal behavior or behavioral disinhibition, which ultimately could lead to pathological violence or killing.

Biology of Pathological Violence and Killing

Animal Models

Pathological violence is not only observed in human societies; animals sometimes demonstrate abnormal, out-of-context aggression which can be studied in neurobiology as a model for human violence (Miczek, et al., 2007a). This form of exaggerated behavior in animals can be recognized when the aggression is not expressed in terms of a goal or function, and it is not subject to normal inhibition. As an example, in laboratory tests, some mice will continue to attack a conspecific after it has shown submissive postures or even when it is anesthetized. Laboratory manipulations have produced several animal models of violence which have enhanced our understanding of the neural substrates underlying violent behavior.

One classic example comes from the work of van Oortmerssen and Bakker (van Oortmerssen and Bakker, 1981) in which mice were selectively bred over several generations for either short or long attack latency (SAL or LAL, respectively). When paired in the home cage with a novel intruder mouse, SAL mice attack immediately. These mice fail to investigate their opponent or engage in normal ritualized behaviors, and are not inhibited in their aggression by submissive postures on the part of the opponent mouse. Over consecutive days of testing, SAL mice display a consistently high level of offensive behaviors, in contrast to other mice which show a decline in aggression over test days. Furthermore supporting the notion of a violence/killing model, SAL mice more frequently target the most vulnerable parts of the opponents body (head, throat, belly) compared to LAL mice, suggesting an intent to kill. They also fail to discriminate between anesthetized mice, males, or females, even irrespective of estrous state in the case of females. Thus, behaviorally, SAL

mice are similar to pathologically violent humans and demonstrate a pattern of behavior qualitatively different from adaptive/functional aggression.

Biologically, SAL mice also represent a valid model of human violence and killing. For one, brain levels of 5-HT and its metabolite are lower in SAL mice than controls following repeated aggressive encounters. Moreover, the brain regions activated by aggression in these animals are different from those that correspond to territorial aggression and more similar to those seen in anti-social personality disorder patients (Haller, 2005). That is, there is little activation of the dorsolateral PAG and lateral septum, but high activation of the medial prefrontal cortex, central amygdala, BNST and locus coeruleus. SAL mice are also stress hypo-reactive, just as humans whom engage in instrumental violence or killing exhibit low emotional arousal and blunted stress reactivity.

Selective breeding has produced similar models for violence using rodents. Briefly, the Turku aggressive (TA) and nonaggressive (TNA) mice were selectively bred based on a seven-point scale of aggression, which produced significant differences in aggressive behavior beginning with the 2nd generation (Lagerspetz and Lagerspetz, 1971). The NC900 and NC100 strains were developed by scoring 33 variables including attack latency and number of attacks, then selectively bred for high and low scores (Cairns, MacCombie and Hood, 1983). In both cases, an abnormally aggressive strain was produced alongside a nonaggressive comparison strain.

Other work has indicated that escalated aggressive behavior can be rewarding in mice (De Almeida, et al., 2006; Miczek, et al., 2007b). The rewarding properties of escalated aggression appear to be mediated by the allopregnanolone, corticosterone, and GABA_A receptor activation (Fish, De Bold and Miczek, 2002; 2005). These types of models are important to understanding how manipulations of the pathological neural circuitry can be influenced in order to arrive at more normal behavioral outputs.

Pathology of Human Violence

Nonhuman animal models are extremely useful; however, studies conducted with human cohorts have produced some very important findings. Specifically, research comparing the biology of normal individuals with violent offenders has offered insight into the differences between the average person and a pathological killer. First, comparisons of cerebrospinal fluid 5-HIAA, a metabolite of serotonin, and testosterone concentrations in violent offenders versus controls have shown that low 5-HIAA is related to high impulsivity and high CSF testosterone is associated with interpersonal violence (Virkkunen, et al., 1994). Comparisons of CSF 5-HIAA between of-

fenders of impulsive versus premeditated violent crime revealed the same relationship. Those who committed impulsive acts of violence had lower 5-HIAA levels, with suicide attemptors having the lowest (Linnoila, et al., 1983). Thus low 5-HIAA, as an indirect indicator of serotonergic tone, seems to be related to impulsive violence, and furthermore may predict, in combination with other factors, recidivism to violent crime among former offenders (Virkkunen, et al., 1989).

Impulsive, reactive violence appears to be very different from the premeditated, instrumental type. For example, treatment with the antiepileptic phenytoin reduces impulsive, but not premeditated, violent acts among prisoners (Barratt, et al., 1997a), suggesting fundamental differences in brain chemistry among individuals expressing each behavior. Further supporting this notion, brain glucose utilization patterns differ markedly between those individuals convicted of impulsive versus premeditated violence (Raine, et al., 1998). And perpetrators of impulsive violent crime have cognitive differences, namely lower verbal skills, compared to those who committed premeditated violent acts (Barratt, et al., 1997b).

Imaging studies have characterized structural and functional differences between offenders of reactive versus instrumental violence (Raine and Yang, 2006). Cohorts of spousal abusers and people with intermittent explosive disorder and borderline personality disorder have allowed for the study of reactive violence. In the majority of studies, there is greater amygdala activation in these individuals when exposed to a threatening stimulus than observed among nonviolent individuals. Some studies have also reported reduced prefrontal cortex activation, which would suggest reduced regulatory input to violence-promoting regions, but there is no consensus in these results thus far (Blair, 2010). In contrast, studies in psychopathic individuals, representing instrumental tendencies, reveal an impaired role of the amygdala and orbitofrontal cortex in response to emotional stimuli. Both reduced activation and reduced volume of the amygdala have been reported in individuals with psychopathic traits and are specific to this population (Blair, 2010). In children, imaging has also identified developmental differences related to callous-unemotional traits, antecedents of psychopathy. Boys exhibiting these traits and conduct problems have reduced grey matter concentration in the orbitofrontal and cingulate cortex, regions implicated in emotion, empathy, and decision making (De Brito, et al., 2009). This may indicate delays in cortical maturation in callous-unemotional boys compared to typically developing boys, which could contribute to the development of psychopathy.

Predisposing Factors to Violence and Killing

Behavior is typically viewed as a result of a combination of interacting factors. Genetic, trait, and environmental variables all drive an individual toward a particular behavioral outcome. In the case of violence, neurobiological research has identified variables at each of these levels which may enhance the likelihood of an individual engaging in extreme aggression or violence.

Genetics

The case for a genetic predisposition for violent behavior has been strengthened in the last decade through association studies in violent or aggressive cohorts. One gene in particular, monoamine oxidase A (*MAOA*), has been well-studied for its interaction with violence. This gene encodes the enzyme responsible for degrading monoamine neurotransmitters, such as dopamine, serotonin, and norepinephrine. As there is some evidence that dysregulation of these transmitter systems is associated with violent behavior, variations at the genetic level may also relate to predispositions toward violence or aggression.

One study in maltreated versus control children examined *MAOA* genotype in terms of aggression risk. In this investigation, exposure to moderate childhood trauma interacted significantly with the low-activity *MAOA* genotype to confer aggression risk. In the case of extreme trauma, the environment overshadowed genetic predisposition, as children had high aggression scores regardless of genotype (Weder, et al., 2009). In a similar study, low activity *MAOA* alleles were associated with increased risk of gang membership and weapon use in males (Beaver, et al., 2010). On the other hand, genotypes associated with high levels of *MAOA* protect against the impact of childhood mistreatment in terms of developing antisocial or violent behavior in later life (Caspi, et al., 2002; Widom and Brzustowicz, 2006).

Other genes have been associated with violent behavior. Certain polymorphisms in *COMT*, the gene encoding catechol-O-methyltransferase, are more common among individuals convicted of impulsive violent attacks compared to healthy control individuals (Vevera, et al., 2009). *NOS-1* polymorphisms, which confer low activity of the enzyme synthesizing neuronal nitric oxide, are associated with impulsive, aggressive behavior, as well as hypoactivity of brain regions involved in emotion and behavioral control (Reif, et al., 2009). This evidence, in addition to research pointing toward the heritability of aggression (Coccaro, et al., 1997), supports a strong role of genes in the expression of violent behavior.

Personality Traits

Several personality traits and disorders have been implicated in violence, including high trait impulsivity, substance abuse disorders (i.e., alcohol and drugs), major mental illness (i.e., schizophrenia and mood disorders), and personality disorders. Research has most clearly linked antisocial and borderline personality disorders with heightened risk of violent behavior, but more research in this area is needed. In a sample of people diagnosed with a personality disorder, those with antisocial or borderline personality were more likely than the others to be convicted of a violent act and showed higher trait hostility and impulsivity (Howard, et al., 2008). Psychopathy is related to antisocial personality disorder, is characterized by such personality traits as lack of empathy and guilt, shallow affect, and manipulation of other people (Cleckley, 1941). Thus, the crimes of psychopaths are often of the predatory, instrumental variety rather than reactive. Psychopathic individuals commit 50% more crimes than nonpsychopaths, are more likely to commit a violent offence, and are often persistent offenders. The mean age of first adult arrest is considerably lower for psychopaths versus other offenders, and convicted psychopaths go on to commit many more violent acts in prison compared to low-psychopathy offenders (Hare, 1999).

Environmental Variables

The environment can have a profound influence on behavior, particularly for individuals with innate predisposition for violence. Environmental interactions during childhood and adolescent development are particularly salient for influencing future behavior. For example, exposure to delinquent peer influences and psychologically abusive parents throughout childhood are consistent risk factors for youth violence (Ferguson, San Miguel and Hartley, 2009). Children who experience parental death are at increased risk of violent crime convictions (Wilcox, et al., 2010) and poor parental bonding (i.e., lack of maternal care and paternal protectiveness) is associated with psychopathic personality tendencies in adulthood (Gao, et al., 2010). Similarly, early life neglect (from birth to age 2) predicts childhood aggression more than later neglect or physical abuse (Kotch, et al., 2008).

Combined with genetic factors, these early environmental variables can have even more salient effects of behavior. The effect of child abuse on behavior is stronger in children carrying low-activity MAOA alleles; this interaction is associated with antisocial behavior, high prevalence of conduct disorder, and increased risk of committing violent offences than abused chil-

dren with high MAOA activity (Caspi, et al., 2002). There is no effect of this polymorphism in nonabused children. This interaction demonstrates the integral relationship between genes and environment in driving an individual toward a particular behavioral outcome.

Exposure to environmental contaminants affecting brain development during early life has also been suggested as a contributor to violent behavior (Carpenter and Nevin, 2010). Compounds that reduce IQ, particularly lead, are known to also result in behavioral changes such as hyperactivity, impulsivity, and anti-social behaviour (Needleman, et al., 1979). Moreover, higher IQ is protective in men at high risk of criminal conduct (Kandel, et al., 1988), and cognitive ability at age 18-20 is inversely correlated with mortality from several factors, including violence, over a thirty year period (Hemmingsson, et al., 2006). Interestingly, delinquent youth have greater bone concentrations of lead compared to nondelinquent controls (Needleman, et al., 2002) and self-reports of delinquent and antisocial behaviors are associated with pre- and post-natal lead levels (Dietrich, et al., 2001). Thus, putting in place standards that minimize early life exposure to contaminants impacting brain development may be one step toward developing nonkilling societies.

Preventative Strategies and Interventions

One goal of neurobiological research on aggression and violence is to identify opportunities for intervention and treatment in individuals at risk of engaging in such behavior. To date, treatment options are remarkably limited. The most common treatment for violent offenders is incarceration. An aggressive dog that bites a human is treated with a death sentence. Thus, research targeted toward preventions and treatment for violence is in great need. As more becomes known of how genetic, trait, and environmental variables interact to produce violent behavior, more possibilities for intervention arise.

Diet and Nutrition

In particular, dietary factors have recently received attention for their relation to human behavior. Interestingly, several variables in nutrition and metabolism have been linked to violent behavior in studies performed in criminal offenders. In young males with history of assaultive behavior, blood serum concentration ratios of trace metals, specifically copper and zinc, are elevated compared to young men without an assaultive history (Walsh, et al., 1997), linking abnormal concentrations of trace metals with behavioral disruption. Cholesterol levels are also related to violence. In a large cohort

of normal individuals living in Sweden, low cholesterol levels (i.e., below the median) were strongly associated with subsequent arrest for violent crimes (Golomb, Stattin and Mednick, 2000).

Alterations in several metabolic parameters have also been identified among violent offenders. Habitually violent, incarcerated individuals with antisocial personality disorder have reduced glucagon and nonoxidative glucose metabolism, as well as low CSF 5-HIAA, a monoamine metabolite associated with impulsive, violent behaviour (Virkkunen, et al., 2007), and abnormal glucose tolerance (Virkkunen and Huttunen, 1982).

Several studies have applied this and related information toward an intervention strategy in violent individuals. To understand whether correcting nutritional deficits could influence behavior, vitamins, minerals, and essential fatty acids were provided to a cohort of incarcerated individuals (Gesch, et al., 2002). Interestingly, those receiving dietary supplements engaged in fewer violent acts in prison than those receiving a placebo, suggesting imbalanced nutrition contributes to violent behavior. Similarly, in a population of normal individuals suspected to have dietary deficiencies of selenium, supplementation elevated mood and reduced anxiety (Benton and Cook, 1991).

Tryptophan, an essential dietary amino-acid, is especially interesting due to its role as a precursor for synthesis of the neurotransmitter, serotonin. In one study, aggressive behavior provoked in a laboratory was measured in men under either tryptophan depletion or loading conditions. Under depletion conditions aggression was significantly elevated, while loading did not affect behavior (Bjork, et al., 2000). Furthermore, a similar study comparing men with and without aggressive histories revealed the effects of tryptophan depletion to be even stronger in men with high trait hostility (Bjork, et al., 1999). Correcting deficiencies in certain dietary components that putatively produce imbalanced neurotransmitter levels may be one factor in reducing human violence.

Early Life

Early life experience profoundly impacts adult behavior, making childhood a critical time to intervene in preventing violence. In particular, early life stress enhances the risk for psychopathology, including excessive aggression and violence. For instance, being the object of physical abuse by an adult predicts later violence toward others (Dodge, Bates and Pettit, 1990) and increases the odds of having a criminal record for violence as an adult by 42% (Widom, 1989). In nonabused children, both self- and mother-reports of heightened physical aggression during childhood predict serious antisocial behavior in adulthood (Di Giunta, et al., 2010). Furthermore,

even earlier factors introduced prenatally by mothers can impact later life behaviors. Maternal prenatal smoking interacts with the mother's history of antisocial behavior to predict the future physical aggression of her child (Huijbregts, et al., 2008). Research comparing the treatment of infants to the level of violent crime across several countries has linked more nurturing cultures with reduced violence (Prescott, 1971; 1974). Taken together, research suggests that shaping a society that is strongly nurturing and affectionate toward infants and children may be one step toward producing nonviolent/nonkilling adult individuals.

Pharmacological Interventions

Currently, several options for the pharmacological treatment of violence exist; however, no treatment has been approved by the FDA specifically for the treatment of violent behavior. Efficacy of the existing treatments is limited by their many adverse side effects and their lack of specificity for violent behavior. The options available generally either sedate the patient or address underlying psychiatric symptomatology, without actually treating the violent behavior alone. Their use is also mainly restricted to disruptive patients in hospitals or other medical institutions and patients suffering mental disorders. One of the first treatments, first-generation neuroleptics such as chlorpromazine and haloperidol, were effective in sedating violent people, but had negative side effects such as tardive dyskinesia. Second-generation, or atypical, antipsychotics are more routinely used today; however, in the case of risperidone, weight gain and metabolic side effects may occur. In some cases, lithium and antiepileptics have been used, as well as SSRIs for impulsive violence, but there is much room for improvement in developing pharmacotherapies specific for violent behavior. Interventions must also be developed which are specific for reactive versus instrumental violence, which differ in their neurobiological correlates, and likely in effective treatments as well.

Conclusions

Violence and killing is a major problem which lacks satisfactory treatment options. The establishment of a nonkilling society will require an understanding of why people kill in order to develop useful preventative strategies. Neuroscience has begun to inform this area with human and nonhuman animal research which provides brain mechanisms to explain killing behavior. Interventions and treatments based on this information may help to shape the public policies which will eventually lead to universal nonkilling.

As discussed, current research points to several promising avenues toward the aim of nonkilling. First, we must understand how inborn personality traits predispose individuals to violent behavior so that we may intervene with behavioral therapies where necessary. Similarly, we should recognize the important interaction between genes and environmental influences. Moreover, because early life experience has a profound impact on developmental trajectories and interacts with inborn traits and genetic variables, it is likely that ensuring emotional support for victims of childhood trauma may help to prevent some of the negative consequences of this early life experience. Protecting individuals from environmental contaminants and promoting balanced nutrition may also have a role in developing nonkilling societies. Finally, a complete understanding of the brain substrates involved in killing is of utmost importance to developing pharmacological tools to prevent this behavior.

Neuroscience research has expanded our understanding of violence and killing in recent decades; however, continued research is crucial to preventing these destructive behaviors. In combination with other disciplines, neuroscience research will eventually provide the information necessary to prevent and treat violence and killing.

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Natural Born Nonkillers

A Critique of the Killers-Have-More-Kids Idea

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There is an oft-voiced proposition within evolutionary psychology that over the course of evolutionary time, natural selection favored human males who have killed over those men who have not. The implication is that killing has been favorably selected as a fitness enhancing strategy. Interestingly, the impetus for this proposition in large part stems from one particular article on the tribal Yanomamö people of Brazil and Venezuela published in 1988. In this article, Chagnon (1988) reports that Yanomamö men who have participated in a killing out-reproduced their same-aged peers. If a Yanomamö man participates in a killing, he must undergo a purification ritual and henceforth wears the cultural label *unokai*. In a series of publications, Chagnon (1990: 95, 1992a: 205, 1992b: 239-240; see also Chagnon, 2010) reiterated that *unokais* average more than two-and-half times the number of wives and more than three times the number of offspring as non-*unokais of the same age*. Pinker (2002: 116) concludes that “if that payoff was typical of the pre-state societies in which humans evolved, the strategic use of violence would have been selected over evolutionary time.”

A careful re-examination of the Yanomamö *unokai* findings and the inferences that have been drawn from them are important because they have been broadcast far-and-wide and have been uncritically accepted within evolutionary psychology and other fields. For example, Buss discusses the *unokai* reproductive success findings in *Evolutionary Psychology* (1999) and again in *The Murderer Next Door* (2005: 35): “Humans have evolved powerful psychological adaptations that impel us to murder as a means for solving specific problems we encounter during the evolutionary battles for survival and reproduction.” Harris relates the killers-have-more-offspring finding in *The Nurture Assumption*. In *U.S. News and World Report*, a journalist proposed that Chagnon’s study “lends new credence” to the idea that “war arises from individuals struggling for reproductive success” (Allman, 1988: 57). Pinker reiterates the findings in *How the Mind Works* (1997) and again in *The Blank Slate* (2002).

Since Chagnon (1983), Buss (1999), and others view the Yanomamö as a living diorama of humanity's ancestral past, then it follows by this reasoning that humans are descendents of natural born killers. The basic evolutionary logic runs as follows. There is variability in a population: Some men are killers and some are not. Certain individuals out-reproduce their neighbors, and, based on the Yanomamö study, killers appear to have more offspring. Traits, such as killing, are to some degree heritable and thus can be passed to succeeding generations. Therefore, humans have evolved to be natural born killers.

In this chapter, we will argue that this dramatic interpretation of human nature is probably 180 degrees off course and that the killers-have-more-kids proposal is unfounded for a variety of reasons. First, computer simulations of evolutionary processes suggest that killing as an aggressive strategy would have been selected against, not favored, by natural selection. Second, the idea that lethal aggression has been evolutionarily favored in humans runs counter to a substantial body of contextualizing data on animal behavior that shows intraspecific killing to be the exception, not the rule, in the animal kingdom. Third, military science and anthropology suggest that humans have an evolved psychological aversion to killing, not a psychological adaptation that impels them to kill. Fourth, psycho-social models regarding the socialization and social learning of values related to killing and nonkilling reflect the observed cultural variation in these behaviors, whereas the idea of an evolved propensity for killing is hard-put to account for such variation. Fifth, the original study (Chagnon, 1988) has multiple analytical flaws that call into serious doubt the conclusion that Yanomamö killers have over three times the number of children as nonkillers. Sixth, two other studies, on the Waorani and Cheyenne (Beckerman, Erickson, Yost, Regalado, Jaramillo, Sparks, Iromenga and Long, 2009; Moore, 1990), report findings opposite to those published for the Yanomamö by Chagnon (1988).

Computer Simulations of Evolutionary Processes

Game theory simulations of the evolutionary process provide us with a *hawk-dove* model, which, although simple, offers some tantalizing insights. Maynard Smith and Price (1973; Maynard Smith, 1974) use computer simulations to model the evolution of aggression by comparing the relative success of different fighting strategies. They use the term *evolutionary stable strategy* for a particular behavioral pattern, that "if most of the members of a population adopt it, there is no 'mutant' strategy that would give higher

reproductive fitness” (Maynard Smith and Price, 1973: 15). An evolutionary stable strategy is roughly comparable to a behavioral adaptation.

The researchers discovered that neither belligerent (hawk) nor timid (dove) strategies are as evolutionarily successful as a strategy they call the *retaliator* strategy. This approach to social interaction entails being nonaggressive unless attacked, at which point a retaliator fights back. In the computer simulations, timid individuals that retreated did not fare very well compared to more aggressive individuals; however, fighting entails risks of injury and therefore overly-aggressive individuals also accumulated evolutionary costs. The conclusion from such simulations is that the agonistic strategies that fare the best are those that are limited and restrained, not lethal ones. Restrained aggression is more advantageous to fitness than either pure dove or pure hawk strategies (Archer, 1988; Archer and Huntingford, 1994; Riechert, 1998).

Restrained Patterns of Competition: The Animal Data

In making a cross-species generalization, ethologist Hinde (1974: 268) concludes that among animals, “death and injury are less common than might be expected.” In fact, most intraspecific aggression in the animal kingdom is nonlethal (Alcock, 2005; Kokko, 2008; Maynard Smith and Price 1973). Nonetheless, escalated fighting can lead to fatal injuries, for example, as has been reported among chimpanzees, hyenas, and lions (Alcock, 2005; Schaller, 1972; Wilson, 1975: 246). Also, there are some special cases where the cost-to-benefit ratio of killing tips the balance in favor of killing. For instance, the mating system among langur monkeys consists of social groups with a single male and a harem of females with whom the male mates until he is deposed and replaced by a new male (Hrdy, 1977). After a series of fights to gain mating rights over a harem, a new male often attempts to kill young infants that were sired by the previous male (Hrdy, 1977). On the cost side, an adult male langur does not place himself in much risk of injury by attempting to kill an infant, although the infant’s mother or other female relatives may attempt to protect an infant from an infanticidal male. On the benefit side, an infanticidal male langur may be able to reproduce sooner than if a male allows his predecessor’s infants to live, because the mothers of killed infants will come into estrus and be able to conceive during matings with the new male sooner than if they had continued lactating and nursing the infants fathered by the prior male (Hrdy, 1977).

So in some special cases, like langur infanticide, killing does occur in the animal kingdom and conveys evolutionary benefits. However, such cases are exceptional and represent situations where the fitness pay-offs to the killer

outweigh the risks to the killer. For the most part, however, animal studies show a recurring pattern wherein aggression against conspecific rivals is limited, restrained, and rarely lethal (Archer and Huntingford, 1994; Eibl-Eibesfeldt, 1961, 1979: 37-40; Fry, 1980; Fry, Schober and Björkqvist, 2010; Hinde, 1974: 269; Maynard Smith and Price, 1973; Riechert, 1998; Schaller, 1972: 55).

Most of this restrained intraspecific aggression in the animal kingdom occurs between males who are competing directly or indirectly for mates (Fry et al, 2010). For example, male mule deer “fight furiously but harmlessly by crashing or pushing antlers against antlers, while they refrain from attacking when an opponent turns away, exposing the unprotected side of its body” (Maynard Smith and Price, 1973: 15). It is in the survival interests of both contestants to follow the rules of restrained, ritualized fighting so that they minimize the risk of injury and reduce energy expenditure. This point is illustrated by the fact that out of 1,314 sparring matches between pairs of male caribou only six escalated fights were observed (Alcock 2005). This is a ratio of one serious fight to every 218 ritualized contests.

Blanchard and Blanchard (1989: 104) explain: “In evolutionary terms...successful individuals will be those with techniques which enable them to avoid agonistic situations involving serious possibilities of defeat or injury, while leaving them to continue in more promising situations.” The aggressive behavior of a given species can then be seen as the outcome of natural selection operating over many generations, refining behavioral patterns so as to maximize fitness benefits and minimize fitness costs. This idea is summarized by Bernstein (2008: 60): “The potential costs of fighting are such that natural selection has favored individuals that avoid taking risks when the cost to themselves is likely to exceed the benefits of anything obtained by engaging in that interaction.”

Noncontact agonistic displays, ritualized competitions (as opposed to serious fighting), and submission signals used to end a fight prior to serious injury are widespread among animals because over evolutionary time, such behaviors have conveyed fitness benefits on those individuals who have practiced them over those who did not (Archer and Huntingford, 1994: 3-4; Aureli and de Waal, 2000; Fry, 1980; Fry et al., 2010; Hinde, 1974: 270, 272; Maynard Smith and Price, 1973). Generally speaking, the evolutionary “logic of animal conflict,” as Maynard Smith and Price (1973) title their classic paper, means that natural selection as a recurring pattern rewards the limited use of force over “no holds barred” fighting. The widespread appearance in species after species of restrained aggression between conspecific rivals instead of lethal tactics provides an important contextualizing precedent against which to formulate hypotheses about human aggression. Based on numerous studies of

animal aggression, the logical hypothesis would be that humans also have evolved restraint against killing, not a predilection for it.

Aversion to Killing: Military Science and Nomadic Forager Studies

A wealth of knowledge has been accumulated in military science and thoroughly reviewed by Grossman (1995) and Grossman and Siddle (2008) that supports the conclusion that humans have an aversion to killing. The resistance of soldiers to kill other human beings has been documented across diverse wars and societies from U.S. troops in World War II, French officers in the 1860s, Argentine soldiers during the Falkland Islands War, the battle of Gettysburg during the American Civil War, and more generally throughout history (Grossman and Siddle, 2008: 1802).

One of the most intriguing examples of the unwillingness on the part of soldiers in combat to actually fire at their fellow human beings comes from an analysis of 27,574 muskets recovered from the Civil War battlefield at Gettysburg, Pennsylvania. Nearly 90 percent of the muskets were loaded. Additionally, about 12,000 (44 percent) of the weapons were loaded more than once with some 6,000 having between three-to-ten rounds packed into the unfired gun barrel. Grossman (1995) points out that if soldiers were desperately firing their weapons as soon as they had loaded them, only some five percent of the guns, not nearly 90 percent, would have been loaded, and certainly not loaded two or more times. Clearly, a huge number of soldiers under close range combat at Gettysburg were spending their time loading and reloading their guns rather than firing them to kill enemy soldiers.

A classic study of weapon firing rates was conducted during World War II by U.S. Army historian Brigadier General S. L. A. Marshall. After conducting extensive post-combat interviews with soldiers, Marshall concluded that only 15-to-20 percent of the men fired their weapons at a human target (Grossman and Siddle, 2008: 1802). Others fired without aiming, or into the air, or did not fire at all. The phenomenon is also reflected in statistics on aerial “dog fights” of World War II: Less than one percent of U.S. fighter pilots accounted for 30-to-40 percent of the enemy aircraft shot-down in the air whereas the majority of combat pilots did not shoot down a single enemy plane, and many never even tried to do so (Grossman, 1995). General Marshall wrote that “the average and healthy individual...has such an inner and usually unrealized resistance towards killing a fellow man that he will not of his own volition take a life if it is possible to turn away from that responsibility” (Marshall quoted in Grossman, 1995: 29).

This resistance towards killing is reflected in the greater amount of psychiatric symptoms in the soldiers who were involved in killing in comparison with military personnel who were not expected to kill but who still faced high risks of being killed, such as medical personnel or soldiers on reconnaissance missions behind enemy lines (Grossman and Siddle, 2008). In light of the “problem” of getting men to kill, it is not surprising that combat training has been redesigned since World War II to overcome the inhibitions towards killing on the part of typical soldiers that cause them “to posture, submit, or flee, rather than fight” (Grossman, 1995: 28). Another argument in favor of the human resistance towards killing are high rates of depression, PTSD, suicide, domestic violence, and a host of other problems faced by war veterans which show that participation in killing is psychologically very costly and traumatic. Only one-to-two percent of the men in combat lack the typical inhibitions toward killing, and they exhibit sociopathic tendencies (Grossman and Siddle, 2008).

Turning to data from nomadic forager societies, Fry et al. (2010) have suggested that at least three kinds of natural selection pressures have favored nonkilling over killing in humans. First, in the previous section, nonlethal, aggression is the rule, not the exception, in the animal kingdom. This observation is important because it reflects numerous naturalistic experiments during evolutionary history that have resulted in the same outcome time and again: Attempting to kill conspecifics is rarely favored by natural selection. This corpus of evidence provides an important precedent for proposing that evolutionary selection pressures have favored restrained forms of aggression over lethal patterns in humans also. Given the amount of violence in today’s world, this argument may seem to be counterintuitive. However, today’s world is dramatically different from the conditions under which the human species has evolved and if we are discussing proclivities for killing as part of an evolved human nature, we must focus attention on environment of evolutionary adaptedness and the selection pressures that have operated on humankind.

A second selection force favoring nonlethality in humans as well as in other animals involves inclusive fitness. The concept of inclusive fitness holds that since relatives have alleles in common, then selection should favor the good treatment of one’s relatives (Fry et al., 2010; Fry, 1980, 2006). In extant foraging band societies, a huge amount of daily social interaction takes place among genetic relatives and this was almost certainly the case in the ancestral past as well. Killing and injuring relatives has a negative effect on inclusive fitness and therefore should have been selected against.

The third possible selection pressure against killing involves the observed tendency for the close family members of a homicide victim in nomadic for-

ger societies to avenge the death of their relative by killing the killer (Fry et al., 2010). Thus, by committing a homicide, a killer often signs his own death warrant and consequently lowers his own fitness. Revenge was found to be the most common motive for committing homicide among the sample of 21 nomadic forager societies in an ethnographic database called the Standard Cross-Cultural Sample (Fry, in press a, in press b). The typical pattern is that, motivated by feelings of revenge, a homicide victim's family may attempt to kill the killer. If they succeed, this payback killing typically ends the matter because the two killings cancel each other (Fry, 2006: 230). This tendency is illustrated by the Micmac belief that "If thou killest, thou shalt be killed" (Le Clercq, 1910: 286), as well as in the observation for the Chukchee of Siberia that "a murder rarely remains unavenged" (Bogoras, 1975: 663). This revenge pattern also is apparent among the Montagnais-Naskapi of Canada's Labrador Peninsula (Lips, 1947: 470), the Ingalik of western Canada (Osgood, 1958, p. 54), and the Yukaghir of Siberia. (Jochelson, 1926), the Ju/'hoansi of the African Kalahari Desert (Lee, 1979: 391), and other nomadic forager societies. Given that the nomadic band social organization is the social type under which humans evolved, the fitness ramifications favoring nonkilling may have been significant (Fry, 2006, in press a, in press b).

To sum-up, computer simulations, data on animal behavior, evidence for an aversion for killing from military sciences, and the insights we can glean by analogy from an examination of extant nomadic forager societies converge to suggest that natural selection has not favored killing over the course of human evolution. In fact, these diverse bodies of knowledge converge to suggest an alternative hypothesis: Killers probably have been selected against in the ancestral evolutionary environment due to the same types of cost-benefit selection forces that have acted against escalated aggression in other species, due to humans having evolved in small groups consisting largely of relatives, and due to the tendency in nomadic band society for the family of a homicide victim to attempt to kill the killer in revenge for the loss of their loved-one.

A Psycho-Social Model Explains More than an Evolutionary Psychology "We-Are-Evolved-Killers" Proposition

If the goal is to understand killing and nonkilling, then we must begin by noting the variation in these behaviors across time and space. First, not all societies engage in war (Fry, 2006). The existence of countries that have successfully avoided wars for long periods of time such as Costa Rica, Sweden, Switzerland, and Iceland offer a challenge to the idea that humans have an evolved predilec-

tion for killing. Second, although homicide rates vary tremendously from one society to the next and also change over time within the same society, the vast majority of people never kill or attempt to kill anyone. It is difficult to see how the proposition that natural selection has favored males that kill over those who do not explains this inter-societal and intra-societal variation in killing and the fact that most humans do not ever kill. On the other hand, a number of proximate psychological, social, and economic factors offer more promising explanations of these phenomena (Nisbett and Cohen, 1996). We will illustrate this point by focusing on the importance of values in affecting behavior.

Values are conscious, trans-situational expressions of basic human needs which serve as guiding principles in a person or a social entity (Schwartz, 1992, 1994). Schwartz proposes an integrated system that is structured by ten value types (*Hedonism, Stimulation, Self-Direction, Universalism, Benevolence, Tradition, Conformity, Security, Power, and Achievement*), each characterized by its own motivational goal. According to Schwartz (1992) the value system is organized by two dimensions: a Self-Transcendence vs. Self-Enhancement dimension and an openness to change vs. conservatism dimension. These two dimensions underlie motivations: The value types Universalism and Benevolence both involve concern for others whereas Achievement and Power both emphasize concern for the self; Self-Direction and Stimulation involve openness to change whereas Tradition, Conformity, and Security emphasize resistance to change (Schwartz, 1992, 1994).

Conceptualization of values as goals to aspire to implies that values can motivate individuals to behave in certain ways by guiding their judgment regarding which actions are considered as more justified or more desirable than alternatives (Ajzen, 2001; Ball-Rokeach and Loges, 1996; Feather, 1992, 1995; Schwartz, 1994; Verplanken and Holland, 2002). Values are connected to selfhood (Smith, 1991; Feather, 1992), constitute a core of one's personal identity (Bilsky and Schwartz, 1994; Hitlin, 2003), and hence can be viewed as distal determinants of attitudes and decisions (Hitlin, 2003; Hitlin and Piliavin, 2004; Lönnqvist, Leikas, Paunonen, Nissinen and Verkasalo, 2006; Rohan, 2000; Verplanken and Holland, 2002).

A consideration of cultural beliefs, attitudes, norms, and values is crucial for understanding why certain social groups favor nonviolent methods of resolving conflicts whereas other societies are more open to the use of violence (Bonta and Fry, 2006; Fry, 2009; Miklikowska and Fry, 2010). Research shows that value priorities constitute a motivational context within which violence and warfare are perceived as either legitimate or illegitimate. According to Basabe and Valencia (2007) and UNESCO (1995), the

structural bases for a culture of peace are related to values of egalitarianism, harmony, and tolerance within a society all of which correspond with the Self-Transcendence dimension of basic human values (Schwartz, 1994). Consequently, the values constituting the Self-Transcendence dimension have been found to be antithetical to violence, whereas the values from the Self-Enhancement dimension correlate with aggressive ways of behaving. Specifically, values representing the Self-Transcendence dimension have been found to be positively linked with cooperative behaviors (Sagiv, Sverdlik and Schwartz, 2010), altruistic behaviors (Bardi and Schwartz, 2003; Lönngqvist et al., 2006; Omoto and Snyder, 1995), internal and external peacefulness of groups (Miklikowska and Fry, 2010) as well as with prosocial views such as positive perceptions towards immigration, support for an inclusive moral universe (Schwartz, 2007), “macro worry” (a concern about the state of the world and society) (Schwartz, Sagiv and Boehnke, 2000), and readiness for contact with members of an out-group (Sagiv and Schwartz, 1995; Biernat, Vescio, Theno and Crandall, 1996). Consequently, Self-Transcendence values correlate negatively with violent behavior and bullying (Knafo, 2003; Knafo, Daniel and Khoury-Kassabri, 2008), authoritarianism (Altemeyer, 1998; Cohrs, Moschner, Maes and Kielmann, 2005a), attitudes favoring war (Cohrs, Moschner, Maes and Kielmann, 2005b), noninclusive moral universe (Schwartz, 2007), and social dominance orientation (Cohrs et al., 2005b). On the other hand, values congruent with the Self-Enhancement value dimension are negatively related to the expression of empathy for others, altruism, and cooperation (Bardi and Schwartz, 2003; Myyry and Helkama, 2001; Sagiv et al., 2010), and positively related to violent behavior and bullying (Knafo, 2003; Knafo et al., 2008), authoritarianism (Cohrs et al., 2005a), and “micro worry” (concern for one’s self) (Schwartz et al., 2000).

Clearly human beings have a potential for competition, aggression, and killing (Fry, 2004, 2006). Yet, whether this potential becomes an enacted reality depends on the specific cultural setting (Howell and Willis, 1989). Close observation of peaceful and nonwarring societies draws attention to the role of values in maintaining social tranquility (Bonta and Fry, 2006; Dentan, 1978; Fry, 2009; Huesmann, 1988; Miklikowska and Fry, 2010). Cultural settings wherein Self-Transcendence values dominate seem to pattern social behavior in a peaceful way (Staub, 1996). To illustrate this, we will consider briefly the Semai of Malaysia, the Paliyan of India, and the Ifaluk of the Pacific.

Semai daily life is characterized by nonviolence. The Semai neither war nor feud. They rarely use any form of aggression to deal with conflict and, in fact, “usually tolerate annoyances and sacrifice personal interests rather than precipi-

tate an open confrontation" (Robarchek, 1997: 54). Spousal quarrels rarely occur, children are not corporally punished, neighbors seldom argue, even fighting among children is a rarity, and homicides are virtually nonexistent (Robarchek, 1977; Robarchek and Dentan, 1987; Robarchek and Robarchek, 1992). Even when faced with slave-raiding, "the Semai response was always a disorganized and headlong flight into the forest" (Gregor and Robarchek, 1996; 161).

Two paramount Semai values are affiliation (harmonious interpersonal relationships within the band, agreeing, not fighting, not getting angry, not causing trouble) and nurturance (giving both emotional and material support to others, helping, cherishing, feeding) (Robarchek, 1979, 1980). The importance of affiliation and nurturance leads naturally to consideration for the needs of other people--to Self-Transcendence values. The Semai hold an ideal image of their social group as benevolent and nurturing, "we are all siblings here, we take care of one another," and "when I couldn't hunt, you took care of me; when you were sick, I took care of you" (Robarchek, 1989b: 911). The importance of affiliation is also a direct reason for the Semai tremendous fear of conflict (Robarchek, 1980).

Adopting a social learning perspective, it can readily be seen that raising children in an environment that emphasizes the cultural values of nurturance and affiliation means that the youngest members of Semai society have few opportunities to learn physical aggression (Moss, 1997). In the Semai nonviolent social setting, the learning through observation and imitation of aggression is nearly impossible. As Dentan (1978: 132) remarks, "even if a child wanted to become violent, it would have no very clear idea of how to proceed."

In summary, the values of affiliation, nurturance, tolerance, egalitarianism, peace, and conflict avoidance (representing the Self-Transcendence value dimension) provide a foundation for nonviolent Semai behavior. Physical aggression is incompatible with Semai values and the image they hold of themselves (Robarchek, 1979).

The Paliyan place great value on equality, respect, and nonviolence. They believe that "everyone merits equal respect by virtue of being a human being" (Gardner, 2000b: 85). To Paliyan thinking, if a person interferes with the freedom of another, then he or she is acting disrespectfully. This set of values is incompatible with using aggression as a means of dealing with conflicts. For the most part, the Paliyan use effective nonviolent techniques such as third party conciliation, avoidance of conflict situations, and self-restraint, as reflected in the nonviolent ethos, "If one strikes, the struck man keeps still. It is our main motto" (Gardner, 1999: 263),

Gardner (2000a: 225) recorded a mere 20 examples of *disrespect* over a four-and-a-half month period in one Paliyan band. Most instances of disrespect were very mild, for instance, when adults lightly slapped youngsters, or when a person with bruised feelings got up and left in complete silence. Even the most serious instances of disrespect, generally those involving marital jealousy, were very mild if viewed from a culturally comparative perspective. The vast majority involved no physical contact at all, and sometimes no words were exchanged, as when a person simply left the band (Gardner, 1972: 439). Gardner (1999) failed to uncover any cases of homicide. The Paliyan do not engage in feuds or war and respond to threats of violence from outsiders by moving away (2004, 2010).

The nonviolent, nonwarring Semai and Paliyan provide a poignant illustration of the human capacity for living in peace and at the same time raise questions against the notion that killing has been selected over evolutionary time to become a natural attribute of humanity. The Ifaluk of Micronesia is another society that contradicts the idea that human nature includes an evolutionary predilection to kill other people. The Ifaluk have been studied by Burrows (1952) and Spiro (1952) following WWII and by Lutz (1988) some 30 years later. The lack of physical aggression on Ifaluk caught the attention of all three anthropologists. Burrows (1952: 25) writes:

What is striking about Ifaluk...is the fact that there is no discrepancy between its cultural values (the ideal culture) and its actual behavioral patterns (the real culture). Not one individual could remember a single case of murder, rape, robbery, or fighting; nor did the ethnographer witness such behavior in his seven-month study. It was almost impossible to convey to the people the concept of murder, the thought of wantonly killing another person is so completely alien to their thinking.

In a cross-cultural study of rape, Minturn and her colleagues (1969) rated Ifaluk as a society where rape does not take place. Lutz (1988: 199) explains that in the view of the people of Ifaluk, violence was almost inconceivable: "The horror that the idea of violence evokes for the Ifaluk was evident in their discussions of the rumored aggressive tendencies of Americans and some other groups. Several people checked with me to see if the stories they had heard about the existence of murder in the United States were in fact true." This represents an interesting turn-around to some theorists who have trouble imagining that war and violence are not manifested in every human society (e.g., Wrangham and Peterson, 1996). Lutz (1988) also recounts that when the people of Ifaluk watched American movies that the U.S. Navy

brought to the atoll and saw the characters in the films being shot and beaten they were terrified and sickened for days. The case of Ifaluk runs counter to assumptions that humans have evolved predilections towards killing.

The Ifaluk—like the Semai, Paliyans, and many other peaceful peoples around the world—have a Self-Transcendence value orientation that inhibits physical aggression. Anthropological research shows that Self-Transcendence values may contribute to peace in three ways: by directly discouraging violent behavior; by favoring nonviolent responses to conflicts such as discussion, avoidance, and tolerance; and by encouraging self-control and restraint (Baszarkiewicz and Fry, 2008; Gardner, 2010; Miklikowska and Fry, 2010). Although it is possible that the simple forms of social organization provide more certain conditions for the translation of values into practice the comparisons of communities that differ in terms of values but are close geographically illustrate the power of values in contributing to differences in violence (Bonta, 1996; Fry, 1994, 2004, 2006, 2007; Fry and Fry 1997; O'Neil, 1989; Robarchek and Robarchek, 1992; Staub, 1996).

Methodological Problems with the Yanomamö *Unokais* Study

Ferguson (1989) wrote a commentary on Chagnon's (1988) findings and raised the question whether *unokais* and non-*unokais* were really of comparable ages, suggesting instead that some of the difference in reproductive success between the two groups actually was related to age differences between the groups. Chagnon (1989) simply ignored Ferguson's age question and in subsequent publications continued to state that *unokais* had over three times the number of offspring as non-*unokais* of the same age (Chagnon 1990: 95; Chagnon 1992a: 205; Chagnon 1992b: 239-240; Chagnon, 2010). Years later, Chagnon continues to sidestep the age issue as evidenced by his unwillingness to provide the actual means and standard deviations for the ages of the *unokais* and the non-*unokais* (see the Appendix). However, some simple mathematics applied to the Chagnon's published data shows unequivocally that the majority of the *unokais* are over 41-years of age, whereas the majority of non-*unokais* are 30-years of age or younger. Fry (2006) estimates the age difference between the two groups of men to be at least 10.4 years. Obviously, the age distributions are very different for these two groups of men and therefore, before any claim can be made that one group averages more than three times as many offspring as the other group, this substantial age difference must be taken into consideration.

A second complication that makes the interpretation of Chagnon's (1988) *unokai* finding problematic is that headmen generally tend to have more wives and children than other men (Ferguson, 1989; see also Chagnon, Flinn and Melancon, 1979: 318). Using data published by Chagnon, Fry (2006) presents calculations that correct simultaneously for the effects of headmanship and age. The results show that if any *unokai* reproductive advantage exists at all, then such an advantage is nowhere near the three-fold figure that has proliferated in the literature.

There are two more issues worth mentioning. First, Chagnon (1988) included in his study only Yanomamö men that were alive at the time of his research. Ferguson (1989) points out that this procedure could bias the results because the ethnographic data on the Yanomamö suggest that *unokais* are at greater risk of being targeted in revenge-killings than are non-*unokais* (see also Lizot, 1994: 855). Chagnon's inclusion of solely men that were alive at the time of his study is questionable because it implicitly presumes that *unokais* and non-*unokais* have an equal chance of being killed, whereas ethnographic data suggest that killers have a higher chance of meeting a violent end than do nonkillers. Chagnon (1988: 986, emphasis added) explains that "Raiders may inflict deaths on their enemies, but by so doing *make themselves and kin prime targets for retaliation.*" Second, Chagnon (1988) conflates the Yanomamö cultural concept of *unokai* with actual, physical killers (Albert, 1989). Chagnon (1988) takes an entire population of living men and classifies them dichotomously as either *unokais* or non-*unokais*. A person can undergo the purification ceremony, however, for various reasons: A man may directly, physically kill another man; A man may go along on a raid and, take part in shooting a volley of arrows blindly into a village, perhaps killing someone in the process; A man may shoot an arrow into a corpse; A man may kill someone through sorcery, shamanism, or by destroying the victim's animal alter ego (Albert, 1989). Thus the Yanomamö undergo the purification ceremony for multiple reasons and there are multiple paths to attaining the label of *unokai*. Chagnon (1988), however, explains that all the so-called *unokais* in his sample directly, physically participated in killing. If that is the case, what happened to the other types of *unokais* in Chagnon's dichotomous classification? Since no men are left out of the comparison, then either some men who are *unokais* in the eyes of the Yanomamö (for killing via supernatural means, for example) are included in Chagnon's non-*unokai* group, or else Chagnon's *unokai* group in fact includes some men who have undergone the purification ritual for "killing" corpses, practicing sorcery, and so on, but have not actually, physically killed anyone. Finally, it is problematic to gloss *unokai* as warrior, as many writers have done,

because some men have undergone the purification ceremony after committing homicide within their own village (Chagnon, 1988).

In conclusion, there are multiple reasons for doubting that *unokais* have any real reproductive advantage over non-*unokais* at all. If any such advantage does exist, it clearly is only a fraction of the amount reported by Chagnon. The *unokais* as a group are substantially older than the non-*unokais*. “Even the most conservative calculation (age alone) cuts the originally reported *unokai* advantage by 56 percent, whereas the most liberal (yet plausible) calculation combining corrections for age and headman effects totally eliminates any *unokai* advantage” (Fry, 2006: 198). But correcting for age and headman effects does not fix all the problems. Comparing samples of living men is problematic because it obscures an almost certain higher mortality rate for *unokais* than for non-*unokais*. Finally, although the term *unokai* is an indigenous concept that results from multiple types of killing, Chagnon (1988) conflates its meaning with a Western focus on physical killing. These various methodological and analytical issues are cumulative and obviously far from trivial. In light of these multiple concerns, any assertion that *unokais* have more offspring and wives than non-*unokais* is problematic.

Two Other Studies Show the Opposite of the Yanomamö Study

Using the findings from one study to generalize to “all social groups on Earth” (Ghiglieri, 1999: 194) is scientifically unsupportable. And making such a generalization is even more problematic when other studies show the opposite. Moore (1990) examined ethnohistorical and census data for the warlike Cheyenne and discovered that Cheyenne war chiefs had *lower* reproductive success and shorter lives than did Cheyenne peace chiefs.

The Waorani of Ecuador had a very high rate of killing before foreign missionaries assisted the Waorani in making peace with each other (Beckerman et al., 2009; Robarchek and Robarchek, 1998). Beckerman and colleagues (2009) interviewed and gathered genealogical data for over 100 Waorani elders of both sexes to investigate possible relationships between participation in lethal raiding and reproductive success. Beckerman et al. (2009) explain: “To avoid some of the methodological objections raised to Chagnon’s work, we included in our sample of warriors both living and dead men; we ranked their aggression by the number of raids they participated in and not by a local term of contested meaning with which they are labeled. Our analysis is free of the problem caused by the inherent correlation of the warrior’s age with both participation in raids and reproductive success.” The research team analyzed

whether the amount of raiding was associated with the survivorship of the raiders, survivorship of their wives, number of wives, number of children born, and survivorship of offspring to the age of 15 years, in other words, “life history features presumably linked to individual fitness” (Beckerman et al., 2009). They operationally defined *zealous warriors* in three ways: As those Waorani men whose lifetime rate of raiding exceeded the average for all men, exceeded the average for all men plus 0.5 standard deviations, and exceeded the average for all men plus 1.0 standard deviation.

The key finding was that the zealous warriors had lower, not higher, lifetime reproductive success. Beckerman et al. (2009) conclude that: “More aggressive men (i.e., zealous warriors) no matter how defined, do not acquire more wives than milder men, nor do they have more children, nor do their wives and children survive longer. In fact, the most statistically significant difference revealed by our analysis is in the other direction: Bellicose men have fewer children who survive to reproductive age, a finding that strongly suggests that they have lower individual fitness than less aggressive males.”

Finally, Beckerman and his colleagues point out that since their reproductive success findings for the Waorani are the opposite of the findings reported by Chagnon (1988), clearly the Yanomamö findings do not apply to tribal societies in general. In our opinion, because the Waorani study in contrast to the Yanomamö study controlled for the spurious effects of age, considered the reproductive life histories of both living and dead men, and did not attempt to use cultural labels (i.e., *unokai*) but instead counted actual numbers of raids undertaken, the Waorani results carry much more weight than do the Yanomamö findings.

An evolutionary model of human killing/nonkilling should be consistent with an accumulated knowledge base, not merely the results of one particular study. Especially because findings on two other societies, the Cheyenne and Waorani, show the opposite, any claims that Chagnon’s (1988) findings are pivotal to understanding the evolution of human aggression overstep the bounds of reasonable scientific inference.

Conclusions

History has its quirks. Sometimes a single event has enormous consequences, setting in place a cascade of subsequent developments. As the young discipline of evolutionary psychology has evolved over the last two-to-three decades, Chagnon’s (1988) report that killers-have-more-kids has taken a central place in the evolutionary psychology hall of fame having had

a tremendous impact on publications within evolutionary psychology that deal with homicide, violence, and warfare.

Evidence for the substantial impact of this one article is twofold. First, the finding that killers have more wives and children has been widely broadcast across academic disciplines including psychology, economics, anthropology, primatology, political science, biology, and medicine, as well as in the popular press (e.g., Allman, 1988; Barash, 2001: 165-174; Burnham and Phelan, 2000: 88; Buss, 1999: 304-305, 2005: 210; Campbell, 1999: 212; Cronk, 1999: 80; Daly and Wilson, 1994: 274; Gat, 2000b: 75, 76, 87 note 4, 2006: 58; Geary, 1998: 317-318; Ghiglieri, 1999: 144, 193-194; Konner, 2006: 5; Low, 1993: 21, 26, 31; Manson and Wrangham, 1991: 369, 374; McCarthy, 1994: 107; Pinker 1997: 510, 2002: 116; Potts and Hayden, 2008: 162; Symons, 1990: 436-437; Thayer, 2004: 131; Wrangham and Peterson, 1996: 64-74). Second, many discussions of warfare from an evolutionary perspective uncritically recount the finding and then advance variations of the interpretation that killing probably paid fitness dividends over the evolutionary history of the human species (e.g., Buss 2005; Gat, 2006; Konner, 2006; Pinker, 1997, 2002; Thayer, 2004; Wrangham and Peterson, 1996). For example, Potts and Hayden (2008: 162, 164, emphasis in original) follow-up a retelling of the *unokai* findings with the statement: "The Yanomamö...are not only like us—they *are* us."

It is pretty unusual in science for findings from a problematic study to be reiterated uncritically across many fields. Playing up one sole finding as revealing larger evolutionary truths about human nature and a propensity for killing is not exactly good science. To be taken seriously, evolutionary explanations of killing and human nature should be grounded in evolutionary theory, construct realistic models that can generate testable hypotheses, and rest on solid bodies of data. A series of methodological and analytical issues render Chagnon's (1988) killers-have-more-kids finding difficult to interpret. We have noted how age, headmanship, exclusion of deceased men from the sample, and ambiguous group membership issues combine to call the veracity of the findings into question. Additional methodological concerns about Chagnon's (1988) findings also have been voiced by others (e.g., Albert, 1989; Lizot, 1994; Ferguson, 1989, 1995; Sponsel, 2010) but tend to be ignored in favor of touting the original finding. The fact that the findings have not been replicated by studies on the Waorani and Cheyenne (Beckerman et al., 2009; Moore, 1990) at the very least should discourage the type of over-zealous generalizing that has been done on the basis of this one study.

We suggest that the idea that humans have evolved an inclination for killing is actually 180 degrees off course and encounters various stumbling

blocks. For example, how are nonwarring, nonfeuding, and nonviolent societies such as the Semai, Paliyan, and Ifaluk to be explained? Why is the supposed inclination toward killing not manifested in such cases? Buss's (2005) answer is that the inclination toward killing is triggered in particular social situations and thus is not always and everywhere active. In the absence of convincing evidence that any such inclination to kill exists at all, we suggest that a more parsimonious explanation is that the amount of killing in a given society reflects proximate psycho-social influences, which result in variable rates of killing within and across societies.

We presented multiple reasons why an interpretation exactly opposite to the now famous killers-have-more-kids idea actually makes more evolutionary sense. First, at the theoretical level, the evolutionary models and game theory simulations of animal conflict indicate that limited aggression is a better fitness enhancing strategy than escalated aggression. Second, data on animal competition across a great number of species suggest the natural selection tends to disfavor lethal aggression against conspecifics under most circumstances. And in correspondence with the corpus of animal studies, the findings on the Waorani and the Cheyenne show that the men who killed the most had *lower* fitness than their compatriots (Beckerman et al., 2009; Moore, 1990). Third, evidence from military science suggests that humans may well have a strong inhibition against killing other humans. Interestingly, Chagnon (1988: 987) explains that “many raiding parties turn back”, that individual Yanomamö raiders “drop out for reasons such as being ‘sick’ or ‘stepping on a thorn,” and that a majority of the *unokais* have participated in a killing only once in a lifetime. Do these facts suggest, ironically, a reluctance to kill on the part of the very Yanomamö men whose bellicosity so many authors have touted? Fourth, an examination of extant nomadic forager societies suggests that killing may well have been selected against, not favored, in this type of social organization. Three types of possible selection pressures against killing were discussed.

As an overall conclusion, bountiful theoretical and empirical reasons exist for making the prediction that killers will be found to average *less* offspring than nonkillers across a variety of social circumstances. This prediction stems from an application of evolutionary theory and observations of animal and human behavior. We suggest that this alternative prediction to the killers-have-more-kids idea merits further examination.

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Appendix

This Appendix contains excerpts from an online discussion between Napoleon Chagnon and Douglas P. Fry regarding the *unokai* and non-*unokai* age issue. This series of posts appeared on the Evolutionary Psychology list at yahoo.com between March 30, 2008 and April 5, 2008. Additional parts of this discussion are online.¹ The mathematical calculations and discussion referred to in this Appendix can be found in Fry (2006: 184-199, 288-305).

On March 30, 2008, Napoleon Chagnon posted:

...Ultimately, what is really at issue behind much of the criticism of my work are two nearly 'sacred' Anthropological Truths, given down from above to the anthropological laity by self-appointed Ayatollahs like Sahlins. The first one is that warfare is rare to nonexistent in the pristine primitive world of hunters and gatherers because Original Man is basically a nice critter, a Noble Savage. Many of my anthropological critics seem to be upset to the point of suggesting that my data on Yanomamö warfare and violence is 'suspect,' 'exaggerated,' 'cooked,' 'controversial,' etc. and might my data might possibly cause people to question this Noble Savage view because my empirical findings are plausible, meticulously documented and have become widely known. ...The second issue is the question of whether or not anthropology is a "science" and whether or not it can be "scientific" if the humans in human behavior can be "factored out."

On April 1, 2008, Douglas P. Fry posted:

...Most striking is the fact that Chagnon's own data show that *unokais* as a group are substantially older than non-*unokais*. Despite his claims that *unokais* and non-*unokais* are of comparable ages, mathematics show that they are not. From carefully examining Chagnon's own published data, it can be determined that 55% of the *unokais* are over 41 years of age, whereas 56% of the non-

¹ <<http://naturalbornnonkillers.blogspot.com>>.

unokais are younger than age 31. I calculate, again using Chagnon's own published data, that the age differences between these two groups of men is at least 10.4 years. Older Yanomamö men have more offspring than younger Yanomamö men, whether or not they are *unokais*. Chagnon's published data show this clearly. What this means is that huge age differences between *unokais* and non-*unokais* throw the whole finding that 'killers have more kids' into serious doubt, because older men have more kids than younger men.

On April 1, 2008, Napoleon Chagnon posted:

...I carefully read the lengthy endnote in Fry's 2006 publication at about the time it appeared and concluded that with some shaky but creative assumptions about my age estimates for the Yanomamö males in my study—both *unokai* and non-*unokai*—one could try to make the case Fry just posted today on the Ev-Psych list.

...I have never published data that would enable someone to determine who specifically was a 'killer,' his name, his village, his age, how many wives he had, and how many offspring. In short, the data needed to make the criticisms that Fry makes can not be gleaned from my published data.

On April 2, 2008, Douglas P. Fry posted:

...Either the math is correct or not. I have explained in detail what I am doing at every step, cite the sources of Chagnon's data I am using, present explicitly what assumptions I am making and why, and present all the calculations in black and white. Even more details are in the book, such as how the demographic data published in one of Chagnon's 1979 sources provide the Yanomamö population age pyramid for use in my calculations.

...If Napoleon Chagnon thinks that my calculation of age interval averages is wrong, well let's not forget the obvious. He is the guy that holds the individual age data for each man in this own sample. All Chagnon has to do is to tell us readers the actual age averages for the *unokais* and non-*unokais*. He collected this data, so if he thinks my estimates are "shaky," then let's hear what the actual age figures are. We will then see how accurate my estimate is of at least 10.4 years in age difference between the *unokais* and non-*unokais*. At the same time we will also see if Chagnon is correct in his assertions that the *unokais* and non-*unokais* are of comparable ages. We both can't be right. Instead of taking pot-shots at my estimates, why not come up with the actual figures? We will then have actual numbers regarding the age differences between *unokais* and non-*unokais* for the first time.

On April 3, 2008, Napoleon Chagnon posted:

...A. Fry's method for re-calculating ages from my data assumes that ages are relatively evenly distributed within each of my four age groupings. This is probably not true. The Yanomamö are illiterate and have no idea of their ages in years and I have to estimate their ages by "on-site inspection"—looking them over in person (and taking a photograph of them). Estimating ages is easier for the youngest people but difficult for adults. Consequently when I first census a village many people are estimated to be 20, 30, 40; a few are estimated to be 25, 35, 45, etc. and none are estimated to be 22, 29, 33, etc. Also, some age estimates of individuals might be off more than others—I might estimate someone to be 25 when he might be in fact be 33—if that could be known.

...B. I have not claimed that *unokais* and non-*unokais* are of comparable ages in general: I put them into four different age groups and said that men within each of these groups were of comparable age. It is unlikely that there are 'huge' age differences within these categories.

On April 3, 2008, Douglas P. Fry posted:

...Chagnon has never published the actual average ages for the *unokais* ($n = 137$) and the non-*unokais* ($n = 243$), but he has claimed repeatedly that the *unokais* and non-*unokais* he compares are the same age (e.g., Chagnon, 1990: 95; Chagnon, 1992a: 205; Chagnon 1992b: 239-240; see Fry 2006: 289, note 11.) Mathematically, the *unokais* and the non-*unokais* cannot be the same age when they have these extremely different age distributions. Chagnon's four age categories does not adequately control for age distributions that are really different from each other. In my previous posting, I invited Napoleon Chagnon to share with us the actual average ages for the 137 *unokais* and the 243 non-*unokais*. Presenting the means and standard deviations for these two groups would help to clarify the situation. (By the way, sharing the mean ages for these two groups of men does not compromise confidentiality, an important ethical concern previously mentioned by Chagnon, but not applicable to the publication of aggregate statistics such as means and standard deviations for groups of men.)

On April 4, 2008, Douglas P. Fry posted:

...I hope that Dr. Chagnon will be forthcoming with the actual mean ages and standard deviations for the 137 *unokais* and the 243 non-*unokais* in his sample.

On April 5, 2008, Napoleon Chagnon posted

[Fry's] somewhat glowing accounts of ethnographies on various hunters/gatherers that show how they reportedly manage to constrain and restrain violence is supplemented with lessons from animal species which do the same. He ends with the hopeful suggestion that "This type of data presents us with a very different evolutionary model of aggression than does the *unokais* model that focuses on killing as a path to reproductive success." I get the feeling that my 1988 *Science* article MUST be repudiated in cultural anthropology lest it remain a viable 'model' of aggression, which I did not suggest it was, but a possibility that seems to bother Fry.

Unfortunately, this is my last post on this topic. I'm trying to finish a book and I don't have time to re-explain basic Yanomamö ethnography—nor is this the forum in which to do it. I also do not want to be confused with, as Mark Hubey put it in one of his postings on 4/3, those anthropologists who '...prefer doing fourth grade arithmetic and fighting for decades over a problem that can be solved by undergrads.'

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Nature and Nurture

A Nonkilling Developing World Perspective

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Introduction

The registered history of humanity is full of descriptions of wars, conflicts, ideological struggles, territorial fights, crimes of state, murders of leaders and common people, alliances between enemy groups to initiate wars or finish them, periods of peace and the appearance of new wars. It is like a cycle that seems to have no end. A simplistic vision of the facts could get one to affirm war is inevitable and that human beings are assassins by nature.

The reality is another. Less than 0.5% of human beings who have existed have killed another human being (see Paige, 2009 [2002]). There are peaceful cultures where to kill another person is something exceptional and socially condemned. Long periods of peace in many civilizations have existed. In addition we know that culture, more than biology, is the central determinant of human behavior in its varied facets and is the foundation to construct civilization.

It is also acknowledged that nonhuman animals kill each other, which is certain. But the killings of members of the same species are exceptional, and happen basically in the fights between males over females, or individuals for food, or to defend a territory. The normal thing is that animal groups defend the members of their species against attacks of other species; there are no intraspecific killings.

In the human case, the massive murders of other human beings for ideological, economic, religious and territorial causes have filled history books. In fact, the history of humanity appears to be basically the history of the wars. Almost the only thing that has been considered worthy to be registered in books have been wars, assassinations, genocides, invasions, massive deaths of other human beings, and the armistices and alliances to finish wars. Peace was the backdrop, the background, the space between two wars. But what the chroniclers and historians considered worthy to be part of the historical registry were the wars and their consequences.

This brought about the affirmation that wars were inevitable, that the human being was a killer by nature and that violence was imprinted in our genes. This position was defended by many thinkers and ideologists. Nevertheless, what those authors ignore is that human culture is made by human beings, and the values are imposed on the genetic substrate (see Lewontin, Rose and Kamin, 1984). Even if to kill were biological, even if the discrimination by group differences (gender, race, age, ideology) were biological, at any rate human beings are able to surpass their limitations by means of culture, which is the part of the environment made by human beings. Culture, much more than biology, determines the social organization and the daily life of people.

On the other hand, as manifested in the Seville Statement on Violence (1989), science demonstrates that violence is not inevitable, that wars are not inevitable, are not part of our nature. And most important, that the species that invented war can also invent peace. This chapter revises the ideas of nature and nurture in the context of the developing world—with special focus in these first decades of the 21st century—to understand the problems of killing and nonkilling in a global perspective.

The Developing World

In the developing world or majority world, there are wars, social inequality, social class conflict, marital violence, domestic violence, violence against children and the elderly and many other forms. Most of the conflicts and wars of this decade of the 21st century happen in the developing world. There is also violence against animals: bullfights, cockfights, dog fights, animal tortures in circuses, the abandonment and negligence of pets, the abuse against beasts of burden (horses and others), the cruelty when sacrificing animals for human consumption—all these evils are endemic in the developing world.

The developing world refers to that great part of the world where the majority of people live with unsatisfied necessities. These countries are located mostly in Africa, regions of Asia and Latin America. They are nations where the gross domestic product is very low and the Human Development Index (HDI) does not reach the desirable levels. As an example, we can point out that the highest HDI is that of Iceland (96.8) and the lowest is the one of Sierra Leone (32.9). (See *The Economist*, 2010.) In the developing world there is high infantile and maternal mortality, reduced life expectancy, unemployment and under employment, endemic diseases and numerous social conflicts. The gross national product is quite variable in the world at large. Whereas the highest per capita income of the world is US\$ 103,040 (in Luxemburg), the lowest is of US\$ 120 in Burundi. In the devel-

oping world one finds immense social differences and a considerable gap between the different groups that make up the society.

It has been said that the developing world should be called the majority world, because it has most of the population of the planet (around 70% according to some estimates). It is also a fact that the concepts of development, developing countries, poverty, and inequality are relative concepts that change with time, with cultures and ideologies. But such breaches exist, they are there, and they are very obvious when compared with the developed world. It would seem as if we were dealing with different planets.

It cannot be asserted that poverty and inequality are the causes of violence. Many poor countries have no guerrillas, neither manifest violence, nor wars. And on the other hand, rich countries also have violence, high rates of homicide, suicide, discrimination and segregation.

In the developing world the concepts of poverty (see Lipina and Colombo, 2009), misery, employment and unemployment and violence have their own characteristics, which are not always the same in the developed countries (see Adler and Denmark, 2004; Ardila, 2004). In the developing world it is considered better to have a bad job than not to have any, low quality housing is better than none, a deficient and slow transportation system to go to the work is preferable to not having one. Endemic violence sometimes gives rise to a culture of violence (see Rupesinghe and Rubio, 1994).

The discussions on biology and culture, on the genetic determinants of human behavior and on evolutionary psychology have not been centered on the great differences between the developed world and the developing world. It is considered that we human beings are the same species, who share the immense amount of our genetic load (99% or more), an affirmation that has a solid scientific base. The studies on the human genome have served to demonstrate the fundamental equality of the human species. The differences are part of the culture. Also parts of culture are the differences in violence, aggression, delinquency and criminality that we find in diverse countries, different cultures and in different human groups.

The Innate, the Learned and their Interaction

In some conceptualizations of present-day science, an unusual emphasis on genetic, biological and evolutionary explanations is noticed. Genetic determinism has once again gained importance, to be relevant, seeking to convert itself into the explanation of the differences between men and women, between different ethnic groups, between the groups in intelligence (cognitive ability), be-

tween countries and cultures, in the predisposition to diseases, the characteristics of behavior, to explain the differences between people. The pendulum moved from the environmentalist extreme of a few decades ago to the geneticist extreme, as previously it had been done from the geneticist to the environmentalist, and as it will surely move in the future, from this second decade of the 21st century, once again towards the environmentalist extreme. The movement of this pendulum has been constant in the explanations of human behavior: Genetics-environment-genetics and environment once again.

In the specific case of aggression and violence, it is important to remember the great plasticity of human behavior. Not all cultures have been violent and the immense majority of human beings are not. Specific social behaviors are not genetically defined and differ from one country to another. This applies to pro-social behavior, to altruism, as well as to aggression and violence. The excessive emphasis on the genetic determinants of behavior, for example in the case of the violence, is an error and a biased interpretation of the information that contemporary science offers to us, above all, genetics and evolution.

The human species is one of many that arose in a specific ecological niche in a certain era and developed the abilities and skills to survive and progress in that environment. We are referring to Africa, to the zone where specifically the pre-hominids, hominids, and human beings arose and from where the great “out of Africa” migration began that reached Europe, Asia, and the rest of the world. In that primigenius context the conditions of life, the social organization that our ancestors developed and the demands of the surroundings caused certain behavior to be more adaptive than others. Adaptive behaviors included, for example, defending their own group, fighting over females, taking care of the young, avoiding predators, preparing for the ecological contingencies (temperature, food shortages, natural catastrophes, and exhaustion of resources), planning for the future, favoring the organization in groups. Survival pressures also selected predispositions to defend against members of other groups, to ingroup cohesion, and altruistic conduct for the survival of group members who shared a common gene pool with us. Clearly, aggression toward those who were different from us could be exhibited in order to defend our biology and defend our culture.

But despite all the scientific findings of evolutionary psychology (see Buss, 1999; Dunbar and Barrett, 2007; Confer et al., 2010), in spite of their theorizations, their speculations and their important suggestions explaining psychological and cultural evolution, it is clear that we human beings do not wage war because we possess those predispositions in our genes. Neither does the tendency to defend ourselves and perpetuate what identifies us as individuals

or groups lead to attack and destroy those that are different from us. Instead, human beings are the only animals that have invented war.

Nonhuman animals show aggression between species, and also defense of territory, fights for females and food. This intraspecific aggression is very different from the systematic and planned violence that has historically been observed in the human species, in wars, in the destruction of human groups. Intentional killing exists exclusively in human beings. Violence (which is exclusive of human beings) consists in systematically injuring or killing other members of our own species. This is not found in nonhuman animals. It is a cultural product, a consequence of historical and ecological circumstances, but it is not part of the nature of *Homo Sapiens*.

The Great Question: Are We Innately Aggressive?

In spite of what we know about human behavior, about relationships between nature and culture and about the origins of violence and aggression (see for example Kool, 2008), there exists in the collective imagination the belief that we human beings are aggressive and violent by nature and that the friction between groups and ideologies, the conflicts that give rise to wars and murders are natural. A lot of experimental research has been carried out to try to respond to the research questions such as whether genetics or environment or some combination of the two account for differences between animal stocks, individual differences in humans, gender differences and a host of other differences. Behavior genetics could shine light on some central problems of evolutionary psychology, and in general on the determinants of behavior. This has been one of the great questions of psychology throughout all its history.

One of the most systematic studies was carried out with Norwegian rats, which were selected during 50 generations in terms of the presence or absence of high *aggressiveness*. It was found that cerebral serotonin contributes in a decisive way to the genetic mechanisms underlying the individual differences in aggressiveness. (See Popova, 2008.) The genes that codify the main enzymes of the metabolism of serotonin in the brain (that is the tryptophan hydroxylase and monoamine oxidase A, abbreviated as MAO-A), and the receptor 5-HT 1A, form part of the complex group of genes that modulate aggressive behavior.

In the case of human beings, there has been research on people with genetic abnormalities in sexual chromosomes, especially violent family groups, twins, etc. The studies concluded that between 3 and 12 years old, the influences of genetic factors on aggressiveness are considerable and

steady (Van Beijsterveldt et al., 2003). These factors vary as people age. With time the influence of the genetic factors is more important in women than in men. So, we find a complex relation between genetics, environment, and differences of gender in the aggressiveness of human beings.

Other studies with different groups have confirmed that the heredity of aggressive behavior is greater in women than in men, and in men the effects of shared environment are stronger than in women. Men are more prone to experience environmental pressure to be antisocial or aggressive than women. On the other hand, boys are more aggressive than girls, which have been observed in numerous studies and in numerous cultures. However, during adolescence, this gender difference in aggressiveness disappears.

The differences in aggressiveness would be based on a complex genetic map, with numerous genes that are implicated in the codification of the functioning of the neurotransmission systems, with the neuroendocrine system, with the MAO-A. The levels of 5-HIAA in the brain fluid, the neuroendocrine changes and the serotonin levels in the platelets and the serotonin transporter levels can help to distinguish between aggressive patients and control subjects, as much in children as in adults.

It is clear, on the other hand, that the *expression* of a determined gene depends on the *environment* that the individual experiences. In the case of aggressiveness, the role of stress has been well documented. The poor control of impulses has been associated with genes that have to do with the serotonergic and catecholaminergic systems. It is possible to state that genetic aspects influence biological factors such as arousal, hormone levels and neurotransmitter levels.

Behavior genetics has demonstrated that *the environment* plays an important role in the expression of a trait that possesses a determined genetic load. For the case of aggression (persistent or punctual) the interaction of genetic and learned factors is very important.

Psychology and Aggression

Research on the genetics of aggression and violence and their interaction with environmental factors has demonstrated the role of context determinants—physical and social—in the expression of an aggressive act. In the case of human beings, culture has developed forms of expression of aggression that are socially accepted and that are differentiated from other forms that are not tolerated. The friction between people and groups, extreme arousal and hypervigilance, can lead to situations of conflict and physical or verbal attacks to other people. Cultures tolerate such forms of

aggression within certain limits, and different cultures set up different boundaries for those aggressive acts. There are certain verbal and physical expressions of aggression, such as joking, playful fighting etc., that are accepted, and there also exist limits that cannot be crossed.

Human behavior is learned, based on genetic foundations and predispositions that have resulted from our development as a species. The way we act, how we feel and how we communicate with one another is fundamentally determined by social learning. We are children of the culture, just like we are children of our family and our biology, and without a doubt the capacity to learn and modify our behavior based on the consequences of our actions and on cultural norms, explain the greater part of human action. Biology is not destiny, and neither is the evolutionary history of our species.

In the specific case of violence and killing, it is clear that killing is not something that the human mind naturally tends to do. On the contrary, human beings have a high resistance to killing. Even in the most extreme wars and conflicts, to kill is something that produces horror in the person who kills. This is also applied to the case of the executioners, of torturers and people that for conditions of their work have killed somebody (for example the police in extreme situations). Referring to the acts to killings in times of war, Grossman affirms (1995: 31): "Looking another human being in the eye, making an independent decision to kill him, and watching as he dies due to your action, combine to form the single most basic, important, primal, and potentially traumatic occurrence of war".

Many soldiers in a war refuse to kill their enemies, and it has been found that only a relatively small percentage of soldiers really shot their weapons. Even in situations of self-preservation, the resistance to killing is strong. People avoid killing the enemy, not for fear as one might assume. This is demonstrated because they are capable of executing very potentially dangerous situations, different from killing another person. And even in those cases in which soldiers or police shot their weapons, they did it being careful not to kill the victim. This *intention of not killing*, in battle situations, has surprised those who believe members of the human species have a killing instinct or that man was a killer-ape.

Murders committed when the victim is not visible, for example in the bombings during wars, are much less traumatic than murders that occur with the victim in sight. This is demonstrated in the psychological studies of Milgram (1974) obedience to authority figures; that is, people are more likely to resist orders by authorities to harm others when the victim is present as opposed to not being physically present in the same room. Similarly, to drop a bomb from an aircraft

on a group of individuals that are beyond view is much less traumatic than directly hurting somebody. Nevertheless, when they are directly confronted with the consequences of their acts of war, these bomber pilots during the war make fantasies about the destructive effects of their acts and experience traumas.

In the context of violence and tortures of some decades ago in several regions of the world, including the developing world, Post Traumatic Stress Disorder (PTSD) has been studied, in the victims as well as in the torturers. And although there is much more research work about the victims, there is also some in regard to the *perpetrators*. In the countries with internal conflicts, among them Colombia and others (Palacio and Sabatier, 2002), there is research about the psychological effect of having lived in situations of belated confrontation and frequent murders, including the killing of the members of the same guerrilla group for reasons of “loyalty” or “security”.

In the past there existed the profession of the executioner, who was in charge of the executions of the condemned, including the times of the great revolutions, among them the French Revolution. There exist descriptions of present day executioners in the countries with the death penalty and of the psychological effect of this work on those who perform it (see Cabana, 1996). The feeling of anxiety and horror that accompanies the executioner has been very well documented: nightmares, scenes of nausea, feelings of guilt, distortion of time, physiological effects, feeling exhausted, and as Cabana says “Try as I might, I could not separate myself from the horribleness of it all” (1996: 17).

It does not seem reasonable to think that if killing were a natural tendency of our species, such negative effects would occur. It has even been documented in the case of the police, that shooting someone is more traumatic for those who shot than for those who received the shot. Even in situations where to terminate with the life of another person is socially accepted and “desirable” as in the case of the executioners in countries where the death penalty exist, and in the case of the police who intervene in the case of a homicide and kill the murderer, you still see this clinical pattern of trauma. In fact, as mentioned earlier, killing is not something that the human beings naturally tend to do.

The Despersonalization of the Victim

One of the forms that human beings have invented to manage to overcome the tremendous trauma that results from killing another human being is to depersonalize the victim. The cognitive dissonance that appears as the result of killing another person is dealt with by means of a cognitive adjustment that consists of convincing oneself that the victim was not a real and complete

human being. In the case of the Holocaust, which is very well studied and documented, it consisted of convincing ourselves that the Jews and the gypsies were inferior human beings and we were trying "to improve" the human race, and that the medical experiments on humans conducted during the Holocaust served to help advance human knowledge (Cornwell, 2003). This same idea was found in the genocides of the original peoples of America and Australia: the native ones "did not have a soul" were not equal to us and therefore to destroy them was not to kill another human being but to get rid of a sub-human enemy. It was to expand European and Christian civilization to groups that did not want to understand that we did it for their benefit and their salvation. In the case of the slaves the situation was similar.

Only when natives and blacks were recognized to have human rights was it accepted that the different ethnic groups all belonged to the great human family. At that point, killing a native or a black was considered the murder of a human being, equal to any other.

The slaughter of *animals* has special characteristics. For enjoyment and excitement reasons it exists in many parts of the world, but most of all in the developing world. Bullfights are in some countries of the developed world (as Spain) but for the most part exist only in few countries of developing world. The cockfights, dog fights, etc., are only in the developing world. On the contrary, hunting as a sport, to kill animals as a distraction (see Bok, 1999) is part of the culture of some countries that are regarded as very civilized, industrialized and advanced - hunting as a sport for some European royal families and some nobles, and the excursions to Africa or South America in hunting expeditions, are well known. Killing animals for fun, for no need at all, not to consume their meat, nor to defend against them as possible predators, is something that the developed world accepts. The important thing from the psychological point of view is that it is considered that animals do not have "rights", are not equal to us, and therefore we can torture them, kill them for fun, even to breed them with the exclusive purpose of torturing them and killing them as in the case of bullfighting.

The important exceptions are pets. People take care of them, love them, live with them, take them to the doctor, feed them appropriately, vaccinate them, suffer when they are sick and really miss them when they die. Pets are not eaten. A dog, a cat or a canary are not considered appropriate to be eaten. However a cow, a sheep, a hen, a pig, a fish, can be eaten without any problem. Rabbits occupy a difficult intermediate place between pets and animals that are consumed. There are countries that eat dogs, cats and other pets, and that habit produces horror to the inhabitants

of the developed world. Curiously, many African peoples do not understand how in the West we raise dogs, cats and other animals as pets.

Therefore, there would be in the mentality of our society several types of animals: ones to take care of, to love and be company like a member of the family: they are the pets. There are others to be killed after torturing them, with the purpose of proving our abilities, our intelligence, and our cleverness: they are game animals, the fighting bulls, the gamecocks and the fighting dogs. In a third category are animals that we consume as food (cows, sheep, fish, pigs, hens, ducks, turkeys, geese, shellfish and others). The sacrifice of animals for food is something accepted among most members in human societies, with exception of the vegetarians (a minority that varies between the 3 and 12% of the population in Western countries). Animals that are consumed are often raised in quite inhumane conditions; they are sometimes force-fed in an artificial way, and are sacrificed as soon as possible upon reaching an appropriate age. The death of cows, pigs and other species is quite cruel, especially that of pigs in the developing countries. I always have said that if a person sees a pig slaughtered, they immediately become a vegetarian, or at least never in their life go back to eating pork. And Paul McCartney stated, "If slaughter houses had glass walls, everyone would be a vegetarian".

At the bottom of the matter exists the separation between "us" and "them", between the in-group and the out-group. The Jews, the gypsies, the Native Americans and the black slaves, are not equal to us. Neither are the mentally retarded, the schizophrenics, the serial killers, the thieves, the rapists, the autistic children and the deformed. And much less are game animals, the fighting bulls and the animals that we raise to feed us. However, it would seem that pets were equal; they are loved, protected, spoken to and even left inheritances.

In ethical terms this could be analyzed within the context of moral exclusion, of the "us- them dichotomy", of the denial of human rights to those who do not belong to our group, species, culture, gender, sexual orientation, ideology or community. The "us-them dichotomy" has explained a great part of the killing at all levels, throughout history and also in today's world.

Conclusions

The contribution of psychology to the mission of nonkilling can be very important. As has been indicated by Paige (2009 [2002]), Evans (2009) and others, nonkilling refers to the absence of killing, threats of killing, and conditions condu-

cive to killing in human society. Fundamental importance is given to the conditions that can lead to a society that does not have murder, genocide, terrorism, the death penalty, honor killing, ritual killing, infanticide, structural violence and other forms of killing, direct, indirect or structural. At the core of the matter is announced an ethics of respect for other human beings, and in general for other living beings and for an ecological context. An ethics that has as its underpinning in the conviction that nobody has the right to take the life of another person.

All of this would seem far away if we observe the present world, the violence, the wars, the aggression and all the social ills that are observed in our daily life. But human behavior, social organization and culture are highly flexible and are the product of human action. We are not genetically destined to aggression, violence, war or to kill other human beings. Science, including psychology, has demonstrated that it is incorrect to say that we have inherited a tendency to make war from our animal ancestors. It is false that war and other violent behavior are genetically programmed in our nature. On the contrary, how we act is shaped by how we have been conditioned and socialized. Biology does not condemn us to kill others, nor to wage war, nor to genocide nor to terrorism. Science indicates that we are able to reach the measurable goal of a killing-free world.

Psychology has worked very much in this direction as we have indicated before (Kool, 2008; Christie, Wagner and Winter, 2001; Anderson, 2010; MacNair, 2002, 2009; Ardila, 1989, 2001). The studies on nonkilling, non violence, peace and conflict resolution, causes of violence and aggression, psychology of war and peace, are numerous. The scientific evidence, its empirical base, the possibility of verification and the practical and direct applications, make this area of work and research very promising. All this should be framed within a philosophy of respect for others, of recognition of the differences and of humanism.

The main psychological organization world-wide, the International Union of Psychological Science (IUPsyS), through the Committee for the Psychological Study of Peace, released a declaration concerning the possibility of turning the Culture of War and Violence to a Culture of Peace and Nonviolence, which we present in the end. The structural causes of violence are emphasized such as social injustice, poverty and the exclusion that leads to intergroup hostility.

We are not genetically programmed for violence. War is a human invention, as peace, harmony and solidarity can also be. The first step to achieve this is to recognize the great flexibility of human behavior, the role of social learning and to believe that a better world is possible for everyone.

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Appendix

Statement on a Culture of Peace agreed upon by the participants in the Sixth International Symposium on the Contributions of Psychology to Peace, in Costa Rica, 24-29 July 1999, convened by the Committee for the Psychological Study of Peace of the International Union of Psychological Science (IUPsyS).

The here assembled psychologists from all continents declare that a shift from a Culture of War and Violence to a Culture of Peace and Nonviolence is founded on changes in values, attitudes and behaviors committed to benevolence, tolerance and solidarity, and the full development of the potential of all. Psychological knowledge is an important tool in facilitating such a shift. A genuine change from a Culture of War and Violence to a Culture of Peace and Nonviolence, can, however, only occur in a context of social justice.

Psychological knowledge emphasize that violent and nonviolent behaviors are a function of the interaction of individual and social influences. Those behaviors are developed through family, community and cultural experiences. The thoughts and feelings of individuals and groups are important in determining whether a potential conflict situation will evoke violent or nonviolent responses. Understanding misattributions, increasing levels of empathy for the situation of others, and enhancing the strength of values of social justice, equality, wisdom and protecting the environment can help to promote nonviolence.

Exposure to aggression and violence in one's community or through the media influences the way individuals as well as collectives interpret, respond to, and act in potential conflict situations. The structural conditions of poverty

and social injustice are nevertheless primary sources of intergroup hostility. Such hostility is particularly likely in situations of rapid social transformation that entail an increasing structural inequity within and between societies. Individual and collective representations of potential conflict situations play a major role in determining whether violent or peaceful behaviors occur.

Psychology has provided evidence that on a societal level, political and social leaders can be powerful role models of peace-building attitudes and behaviors. On an intermediate level, family, school and community prevention and intervention programs have been shown to reduce violence within a society. They can be more effective when signs of emerging conflict first appear, and in immediate post-conflict situations. At the individual level, early interventions are more successful than interventions initiated later in life. Later interventions have, however, also been shown to have important impact. The effectiveness of prevention and intervention programs can be enhanced by considering the developmental levels of the participants and their cultural and social context.

The above is based on accumulated evidence-based knowledge across continents and areas of psychology. We emphasize that a significant contribution to a Culture of Peace can be achieved through an implementation of the above policies. We recommend the dissemination of these principles to governments, educational and societal institutions.

This statement was formulated in honor of the late Ignacio Martín-Baró who gave his life for peace and social justice in November 1989.

Psychology of Nonkilling

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The broken sleepes, the dreadfull dreames, the woe
Which wonne with warre and cannot from him goe.

(George Gascoigne, combat veteran in the 1500s, *Dulce Bellem Inexpertis*, verse 40)

Killing as Trauma

While the ill effects to those who are killed are obvious, what is the impact of *doing* the act of killing on the human mind? In the early years, there were psychologists who proposed that it was a natural aggression instinct. However, unlike eating and sleeping, the vast majority of people never actually engage in killing other human beings, so this does not make much sense. The idea was more a part of the times out of which it came, when wars and executions and the stray riot were being justified as being something that could not be helped. In recent decades, psychologists have been very clear that killing is not something the human mind naturally tends toward.

But can we go further than that? What about the idea that killing has a negative impact on the mind? That it tends to make us sick?

I was making this kind of assumption when considering the idea of “battle fatigue,” or in current technical psychology terms, “Posttraumatic Stress Disorder.” Yet when I dug into the literature on the subject, I found that this assumption was not widespread. The idea of PTSD had been spread to many different kinds of traumas, but even for the original group of soldiers, the idea that killing could be a cause of the disorder was considered only now and then; I was able to pull together a fairly comprehensive list (MacNair, 2002).

Around the beginning of the twentieth century, Jane Addams noted aftereffects of having killed. Known for her innovations in social work, she reported what she saw when visiting with WW I soldiers. After documentation of men who refused to shoot to kill even in the trenches, she talked of insanity among the soldiers in various places, and of their being dazed after participating in attacks. She talks of hearing “from hospital nurses who said that delirious soldiers are again and again possessed by the same hallucination—that they are in the

act of pulling their bayonets out of the bodies of men they have killed" (Johnson, 1960: 273). This is clearly symptom B(3), which will be covered below.

One book, *On Killing*, written by an army psychology professor, deals with the subject in the sense Addams had in mind. Lt. Col. David Grossman (1995) comes to the question of PTSD as the result of killing in combat from a perspective different from peace activist Jane Addams. The purpose of his book was to study "the psychological and sociological processes and prices exacted when men kill each other in combat" (Grossman, 1995: xxi).

He looks at the various conditions under which the immediate "psychiatric casualties" resulting from combat will be high or low, and debunks the original assumption that "battle fatigue" results from fear of injury or death. For example, the expectation of high civilian psychiatric casualties was behind the Nazi bombing of London, and the British and American bombing of Germany, but these turned out to be counterproductive. Psychiatric casualties were quite low, and the population strengthened its resolve. On the other hand, psychiatric casualties were high in the Nazi concentration camps. Grossman attributes the difference to the "Wind of Hate." Impersonal threats are not as unnerving as face-to-face hatred.

Most importantly, he goes over evidence that the human being has a high resistance to killing. S. L. A. Marshall was an official army historian who did a study by interviewing soldiers after combat to ascertain exactly what they did. He found only 15-20% of them ever shot their weapons. Even under situations of self-preservation, the resistance to killing is strong. While some have questioned Marshall's methodology, there are other pieces of evidence from history that during several wars, the rates were similarly low.

Fear does not account for the nonfirers, for they did other combat duties that were amply dangerous. Of those that do shoot, evidence shows that the majority intentionally aim high to avoid killing anyone. Grossman concludes: "Looking another human being in the eye, making an independent decision to kill him, and watching as he dies due to your action combine to form the single most basic, important, primal, and potentially traumatic occurrence of war" (Grossman, 1995: 31).

As a result of changes in U.S. Army training techniques, those that did shoot during the war in Vietnam were up to 90 to 95% of the combatants. The military instituted training that was more realistic and therefore closer to operant conditioning. This worked, but at a price: "this program of desensitization, conditioning, and denial defense mechanisms, combined with subsequent participation in a war, may make it possible to share the guilt of killing without ever having killed" (Grossman, 1995: 260).

Definitions of Posttraumatic Stress Disorder

One of the definitions of PTSD comes from the American Psychiatric Association (1994) and its *Diagnostic and Statistical Manual*, currently in its fourth edition and usually referred to as *DSM-IV*. Another comes from the World Health Organization (1992) in its *International Statistical Classification of Diseases and Related Health Problems*, currently in its tenth revision and normally referred to as *ICD-10*.

The following is a shortened version of the symptoms of PTSD from *DSM-IV*:

- A. The person has been exposed to a traumatic event
- B. The traumatic event is persistently reexperienced in one (or more) of the following ways:
 - (1) recurrent and intrusive distressing recollections of the event, including images, thoughts, or perceptions
 - (2) recurrent distressing dreams of the event
 - (3) acting or feeling as if the traumatic event were recurring (includes a sense of reliving the experience, illusions, hallucinations, and dissociative flashback episodes, including those that occur on awakening or when intoxicated)
 - (4) intense psychological distress at exposure to internal or external cues that symbolize or resemble an aspect of the traumatic event
 - (5) physiological reactivity on exposure to internal or external cues that symbolize or resemble an aspect of the traumatic event
- C. Persistent avoidance of stimuli associated with the trauma and numbing of general responsiveness (not present before the trauma), as indicated by three (or more) of the following:
 - (1) efforts to avoid thoughts, feelings, or conversation associated with the trauma
 - (2) efforts to avoid activities, places, or people that arouse recollections of the trauma
 - (3) inability to recall an important aspect of the trauma
 - (4) markedly diminished interest or participation in significant activities
 - (5) feeling of detachment or estrangement from others
 - (6) restricted range of emotion; inability to have loving feelings
 - (7) sense of a foreshortened future
- D. Persistent symptoms of increased arousal (not present before the trauma), as indicated by two (or more) of the following:
 - (1) difficulty falling or staying asleep
 - (2) irritability or outbursts of anger
 - (3) difficulty concentrating
 - (4) hypervigilance
 - (5) exaggerated startle response

The nature of the nightmares can be unusual. They can be like a videotape in the head, replays of the actual events. They can also involve thrashing around in bed. The definition in ICD-10 is in more of a narrative form:

Arises as a delayed or protracted response to a stressful event or situation (of either brief or long duration) of an exceptionally threatening or catastrophic nature, which is likely to cause pervasive distress in almost anyone. Predisposing factors, such as personality traits (e.g., compulsive, asthenic) or previous history of neurotic illness, may lower the threshold for the development of the syndrome or aggravate its course, but they are neither necessary nor sufficient to explain its occurrence. Typical features include episodes of repeated reliving of the trauma in intrusive memories ('flashbacks'), dreams or nightmares, occurring against the persisting background of a sense of 'numbness' and emotional blunting, detachment from other people, unresponsiveness to surroundings, anhedonia, and avoidance of activities and situations reminiscent of the trauma. There is usually a state of autonomic hyperarousal with hypervigilance, and enhanced startle reaction, and insomnia. Anxiety and depression are commonly associated with the above symptoms and signs, and suicidal ideation is not infrequent. The onset follows the trauma with a latency period that may range from a few weeks to months. The course is fluctuating but recovery can be expected in the majority of cases. In a small proportion of cases the condition may follow a chronic course over many years, with eventual transition to an enduring personality change.

Anxiety and depression are actually separate phenomena, and as such they are not listed in the *DSM-IV* definition, but they are commonly recognized as associated, as the *ICD-10* says. Those diagnosing must differentiate between PTSD and panic or anxiety and other closely related disorders, and these can be concurrent conditions. Alcohol and drug abuse are also clearly distinguished but very commonly associated with PTSD. All of these things—anxiety, panic, depression, substance abuse—can be also included in the psychological consequences of killing, along with such things as increased paranoia or a sense of disintegration, or dissociation or amnesia at the time of the trauma itself.

I have coined the term "Perpetration-Induced Traumatic Stress" (PITS) to describe this as a sub-category of PTSD. The term "perpetration-induced" was inspired from the following quotation, in which authors are discussing PTSD as a legal defense in criminal trials: "It must be able to be established... that PTSD existed at the time of the violent crime and did not stem from it, as in some perpetrator-induced trauma" (Hall and Hall, 1987: 49). I drop the word "disorder" because the symptoms are of interest even if they do not rise to the level of a disorder.

How Does PTSD from Killing Differ from Other PTSD?

Hendin and Haas (1984: 31) note that aggression—often explosive—is a common feature with combat veterans. Unlike concentration camp survivors, for example, for whom such outbursts would be maladaptive, those who used aggression in combat continue to use it in peacetime. The authors observed that “comparably, veterans who had traumatic combat experiences but never fired a weapon are a minority whose posttraumatic stress disorders do not include explosive expressions of anger” (1984: 27-28).

Unlike the other groups, veterans are the one group on which sufficient quantitative data is available to allow for some generalizability at least to similar veterans. The largest study of any at-risk population for PITS was a United States government-commissioned survey of veterans of the American war in Vietnam, done in the 1980s (Kulka et al., 1990). The National Vietnam Veterans Readjustment Study (NVVRS) used a stratified random sample of Vietnam-era veterans and a comparison group of veterans. I have done a large secondary analysis of these data, using the 1,638 theater veterans (MacNair, 2002, ch. 2 and appendix).

PTSD scores were indeed more severe among the perpetration groups compared to the control group, consistent with the consensus of previous literature (see MacNair, 2002 for a review). The size of the difference as measured by Cohen's *d* is very high in the main group, at .97 being close to an entire standard deviation of difference. The effect sizes were moderate in the sub-sets which were select for having people more likely to have PTSD.

Could killing simply be a marker for having been in heavier combat, which would naturally be more stressing? No, the greater severity was not merely due to the level of battle intensity, as remembered and rated by the veterans. Those who had killed in light combat had a higher mean score than those who had not killed in heavy combat. Multiple regression also showed that the variable of killing still added explanation when battle intensity was controlled,

In checking the patterns with discriminant function analyses, the hypothesis of greater explosive outbursts as compared with other symptoms was confirmed. This point has important therapy implications. It also relates to the question of prevention. Violent outbursts can lead to violent activity.

Other points also loaded on the side of those who said they had killed. Not surprisingly, the item of never telling anyone about something that was done in the military always loaded on the side of the perpetration group in whatever way that was measured. Inability to express can complicate heal-

ing from the trauma, and may be connected to the fact that intrusive imagery, the unwanted thoughts and nightmares, also always loaded high.

Also commonly loading on the perpetration groups, but not as strongly, were hypervigilance, alienation, and survivor guilt. The issue of justified guilt was not covered.

Avoidance items were less consistent, sometimes appearing for perpetration, sometimes nonperpetration, and not often entering at all. In this study, the same veterans were asked about how they coped in Vietnam, and an analysis of their answers showed that avoidance was a coping mechanism more for those who said they did not kill than for those who said they did. There is some intuitive sense to this, that avoidance behavior would be more characteristic of those who avoided killing. Therefore, those who kill may already be at a lower threshold of avoidant behavior as a personality disposition, and this helps to account for the inconsistency. Perhaps they require a greater level of avoidant symptomatology to surpass a group which started off with more than they had.

A surprising finding was that concentration and memory problems consistently loaded on the side of the nonperpetration groups. Perhaps the more active are less inclined to have such problems than the passive are. Perhaps it goes the other way, that preceding concentration and memory problems interfere with getting into situations in which one kills. Perhaps the greater tendency toward hypervigilance in those who kill counteracts concentration problems by requiring more concentration. For an excellent example of killing-induced hypervigilance, see Steven Spielberg's movie *Munich*, about Israeli assassins of individuals believed to be involved in the killing of Israeli athletes at the Olympics.

Only one scale used in a sub-set had the component labeled disintegration. This included items of a sense of unreality, experience of depersonalization, unrealistic distortion of meanings, restlessness or agitation, self-hatred, hostility toward a part of the body, perception of high pressure, panic, and disintegration. This set of symptoms is not normally included in PTSD scales and is not in the official definition. However, when included in a discriminant function analysis, this factor was second only to the intrusion factor. This suggests that this construct may be very important in the population of those who killed.

What about killing in a context where the results are never seen? Bombing from an airplane might have different psychological consequences. There are many anecdotes from Vietnam of airplane bombers who were comfortable with their work until they were shot down and on the ground were faced with the actual results. The quantitative studies have not included this ques-

tion, so research is still needed, but one history professor noted from her interviews that “technology still failed to render the dead completely faceless. Combatants used their imagination to ‘see’ the impact of their weapons on other men, to construct elaborate, precise, and self-conscious fantasies about the effects of their destructive weapons, especially when the impact of their actions was beyond their immediate vision... So while technology was used to facilitate mass human destruction, it did very little to reduce the awareness that dead human beings were the end product” (Bourke, 1999: xviii-xix). She cites a poem written by William J. Simon in which an airplane pilot named ‘Chopper Jockey’ says that in the jungle below, “with blood of men I have killed, I see the faces of men I have never seen” (Simon, 1972: 42).

Executioners

Is there evidence that carrying out executions constitutes a traumatic event to those who participate? There are not studies using the PTSD concept, but the description of people’s experiences in participating in executions suggests its possible.

As for the first requirement, a sense of anxiety or horror accompanying executions, there are many sources suggesting this. When *Corrections Today*, a popular style magazine for prison professionals, ran a series of articles on “Managing Death Row” in 1993, the view that executions are much more anxiety-provoking than other prison work was presented without opposition. In a highlighted quotation, one warden said, “For most of the members of the execution team, the procedure is a gut-wrenching, highly emotional experience” (Thigpen, 1993: 56). Another warden put it this way: “The next four weeks were among the most difficult of my life. Like many of you, I have seen riots, grisly murder scenes and other prison crises. Yet the impending execution weighed on my mind constantly... [it would] nearly consume me with personal anxiety and concern for our people” (Martin, 1993: 62, 64). In his own book, another warden said simply, “Try as I might, I could not separate myself from the horribleness of it all” (Cabana, 1996:17).

Sleep problems would be expected, and wardens have also reported this: “In the weeks since the most recent execution, I had slept with troubled dreams, fitfully trying to make sense of the whole thing. Looking at the man in front of me, I wondered if I would ever sleep peacefully again” (Cabana, 1996: 16). Another warden said: “I didn’t sleep well that night. I didn’t sleep well the night before either. I’d sleep a bit, then wake up. When I

think about this, it washes over you, it comes in a jumbled up mess of things" (Johnson, 1998: 179).

Peritraumatic dissociation (dissociation at the time of the event) is a major predictor for PTSD. Dissociative symptoms include time distortion, a sense of unreality, and detachment from the event and from other people. In a study of retrospective reports of such dissociation among Vietnam veterans, researchers concluded that "the tendency to dissociate during a traumatic event, although affording the victim some degree of detachment, distancing, and unreality, does not confer long-term protection against, but rather constitutes a risk factor for, subsequent PTSD" (Marmar, et al. 1994: 906).

Warden Cabana (1996) especially has several illustrative passages noting the time distortion and unreality: "How long the final minutes would be for both of us! ... The telephone was still ringing, but somehow it sounded far away" (pp. 12-13). "In a quivering, staccato voice, I read for what seemed an eternity" (p. 14). "The 'last mile' seemed an eternity, every step a painful reminder of what waited at the end of the walk" (p. 187). "Although the struggle seemed to go on forever, it was, in reality, over quickly... It had taken barely a minute for Connie Ray Evans to lapse into unconsciousness" (p. 189).

Physiological reactivity to the event would primarily be manifested in increased heart rate. There are other kinds of reactivity (skin conductance, blood pressure, even brain wave patterns), but measuring them requires equipment. However, when people can hear their hearts pounding, this can be a sign of psychophysiological reactivity. Trombley, for example, reports one officer as saying: "I could hear my own heart beating more than anything else that I'm conscious of in that last three, four, five minutes after the execution warrant has been read" (Trombley, 1992: 213). Warden Cabana gives a more detailed illustration of physiological reactivity at the time of the event, right before the execution as he approaches the cell of the condemned: "The heavy old steel-framed windows made a loud noise as they were slammed shut one by one. Each time I heard the noise echo up and down the tier, my skin crawled and I jumped just a little. The electric lock released the door at the end of the tier with a crack. Everything seemed magnified—every sound, every whisper... My feet were heavy, I felt as though I had to force my legs to move, and I could feel my heart pounding in my chest" (Cabana, 1996: 185). The jumpiness at loud noises is especially noteworthy, and common to reactions to trauma.

Numbing is another expected reaction. In lay terms, this can be expressed as being "blank," as the chaplain of Potosi prison explains how he finds executions: "Exhausting. You're running on adrenaline. You're stressed out. And

when it's all said and done, because you're running on the adrenaline of stress, it's anticlimactic... I've talked to Mr. Roper... I said, 'How do you feel?' And he said, 'Blank.' I said, 'Blank? That's it?' And he said, '*That's all I'm feeling. Blank.*' There's nothing there. You keep thinking there's going to be some emotion. You're searching for something... It's just a blank" (Trombley, 1994: 274-275; emphasis in original). Johnson found a similar reaction, quoting an officer: "I just cannot feel anything. And that was what bothered me. I thought I would feel something, but I didn't feel anything" (Johnson, 1998: 181).

What about chronic reactions? One of the most extensive historical sources comes from the diary kept by James Berry, who served as primary hangman in Great Britain from 1884 to 1892 (Atholl, 1956). Berry's thoughts ran the gamut of post-trauma reactions. The aversion of James Berry to his work was mentioned throughout his diaries. In keeping with the language of the time, it was frequently referred to as a case of nerves: "Berry... never lost an opportunity of praising his wife for... the way she sustained him, especially at times when he was deeply depressed and near a nervous breakdown as a result of some experience at a hanging. Indeed, he recorded that on occasions when he should be setting out for an execution and the whole idea nauseated him, it was only his wife's reminder of his duty that enabled him to go through with it" (Atholl, 1956: 60).

The symptom of persistently reexperiencing the event is shown in Berry's experience with one of his hanging victims: "For the rest of his life, Berry was haunted by Lee. Haunted not merely by that terrible half hour in Exeter Prison which he re-lived a hundred times..." (Atholl, 1956: 131) Warden Thigpen put it this way: "I witnessed eight human beings move from life to death... Those experiences remain indelibly imprinted in my mind" (Thigpen, 1993: 58).

The following testimony comes from Larry Myers on June 28, 1991, before the State of Nebraska Pardons Board. He reports that in 1959, John Greenholtz was the Assistant Warden at the Nebraska Penal Complex, the official in charge of the last previous execution in Nebraska. In 1971, "John and I were chatting about various subjects when out of the blue he asked me if I had ever witnessed an execution... He said that he was physically sick for two days afterwards, he was vomiting and had fits of depression. He said he had nightmares for years after, and that the gruesome images still haunted him, even 12 years later!" (pp. 35-37).

Those nightmares are also part of that cluster of intrusive symptoms, and another example comes from former Canadian execution John Robert Radcliffe: "I used to say to condemned persons as I beckoned with my hand, 'Come with me.' Now at night when I lie down, I start up with a roar as vic-

tim after victim comes up before me. I can see them on the trap, waiting a second before they face their Maker. They haunt me and taunt me until I am nearly crazy with an unearthly fear” (Johnson, 1998: 190).

Another symptom, acting or feeling as if the traumatic event were recurring, can involve hallucinations or flashbacks. People who have these are disinclined to mention them, but James Berry did refer to the “victims I sometimes see in my waking dreams” (Atholl, 1956: 140). The term “waking dreams” may indicate this kind of experience.

Intrusion and avoidance are not mutually exclusive. They can go together, because avoidance can be strongest when intrusion is strongest. Warden Cabana shows how this works: “Following Connie’s execution, I plunged back into my work with a sense of urgency. For a time, it must have seemed that I was pursuing my duties with a vitality and determination not seen before. In a very real sense, I was. Each new day’s crises kept me from having to think or remember. But nothing could dispel the feelings I harbored inside. Try as I did, I could not remove the lingering doubt or bewilderment” (Cabana, 1996: 191).

Note the workaholic nature of coping with the trauma. This helps to account for why many of our politicians who are combat veterans seem to be over-functional rather than dis-functional. Being workaholic has advantages over being alcoholic, after all, and both serve as “self-medication” for people who do not understand how to heal from a trauma—or even that they need to. One study of men at Harvard who had fought in World War II showed that those with more PTSD symptoms were actually more likely to be listed in *Who’s Who in America* (Lee, Vaillant, Torrey, Elder, 1995). Veterans of World War II can often push post-trauma symptoms away with work until the time they retire, and then the symptoms hit them (Sleek, 1998).

Other Groups

Police who shoot in the line of duty become an exception that proves the rule: while killing is normally ignored or minimized as a cause of trauma, this is one group where it is regularly admitted in studies that shooting is more traumatizing than being shot at (MacNair, 2002, ch. 5). The incident is seen as something an officer is naturally trying to avoid and is compelled into by the criminal being shot at. Nevertheless, there are instances where the bureaucracy does not understand that shooting can lead to PTSD; in one tragic case detailed by the American television newsmagazine *Dateline* (2000), their failure to do so despite ample evidence led to the officer’s suicide.

Defenders of abortion believe that it is a form of medicine. Opponents believe it to be killing. If abortion is the taking of a human life, then the psychological consequences of PITS could be expected among those who perform abortions. If we find no such aftermath, the case that abortion is not violence at all is strengthened. In this way, psychological research can add insight to the debate. Such research is yet to be done in a way that could be considered conclusive, but quantitative evidence does suggest post-trauma symptoms among staff (Such-Baer, 1974; Roe, 1989). Additionally, evidence comes from staff members who have left and joined the anti-abortion movement and would therefore be more expected to offer a negative view (MacNair, 2002, ch. 6).

What about killing not of other humans but of animals? Euthanizing animals is hard on staff, but this is not surprising since that staff is select for loving animals (White, 1998). Studies of slaughterhouses have not been done enough to really say. Blood sports, such as hunting, bullfights, cockfights and dogfights provide another possible avenue of study. The exhilaration that often goes with the kill may have a place in the understanding of "addiction to trauma," which will be covered below.

In a report of the American television newsmagazine *60 Minutes* (air date January 11, 1998) a Spanish bullfighter is reported as saying that he dreams of bullfighting every night—a possible post-trauma symptom. He identifies it as such by pointing out that tennis players do not have the same problem, because the tennis player is not in danger of losing his or her life. This does complicate perpetration with risk to one's own life, but the risk is chosen. This bullfighter raises bulls himself, and when asked if it made him sad to think of those bulls dying in the ring he said, "You know every—each bull that I—that I fight and kill him, he's a—he's a part of you for the rest of your life. You understand that?" This suggests other intrusive symptoms to go along with the dreams.

Finally, with human beings, there is the case where killing is requested: assisted suicide, active euthanasia by which an action takes a life, and passive euthanasia where it is inaction that causes the premature death by withdrawal of life-saving treatment. When this killing is involuntary or pressured, of course, it is not much different than ordinary killing, with medical context to make it seem less repulsive. What about those cases in which the person being killed truly asks for and desires to be killed? Setting aside questions of bigotry against those with disabilities, possible pressures from family members with financial motivations, and traditional discriminations based on gender, race, or economic status, the case of someone asking to

be killed may entail different psychological consequences than the majority of people who are clearly unwilling to die.

What kind of consequences accrue to the doctor or other person who assists? In the United States, Jack Kevorkian has been a famous example, and his obsession with death in art and otherwise could easily be a form of the intrusive imagery and the re-enactment symptom. Still, Dr. Kevorkian is not the most typical case, and no diagnosis has been asked for or made.

Holland is the current source of the greatest numbers of doctors not only participating in euthanasia, but willing to admit so to researchers, as shown in its governmental Rummelink Report. One book on Dutch euthanasia (clearly opposed to the practice) does find evidence of aftermath for the doctors. One doctor, when asked if he paid a price for his involvement, answered "The price of any dubious act is doubt... I don't sleep for the week after." (Hendin, 1997: 52). Hendin remarks on this case: "That he felt his life had been changed by participating in the death of the woman tormented by memories of the concentration camp suggested that he might now be afflicted by disturbing memories of her and others whose lives he had ended... he seemed pleased if not relieved to be talking about euthanasia or consulting about it rather than still performing it" (p. 53). Of course, all this one example shows is that an opponent who is searching for anguish can find it. At this point, further research is warranted.

History provides examples of many other groups that might have suffered this form of trauma, and from which we might gain insight if we know more about this. For example, the Aztecs had massive human sacrifices on public display going on at the time the Spaniards arrived. If results of this included massive perpetration-induced traumatic stress, might this help in any explanation of subsequent events? What about other instances of human sacrifice, which were common in the ancient world?

The application to wars throughout history is obvious, but practices from cruel maintenance of slavery to those carrying out massacres to bloody purges in protection of dictatorships or monarchies would also apply. Kings and rulers who commonly engage in ordering and carrying out killing may have incidents in their histories which become more understandable when the concept of PITS is applied. The historians studying those particular problems may wish to take the concept into account, and search for mention of symptoms. No diagnosis could be made, of course, but historians commonly conjecture that certain diseases were present at some level based on evidence of mention of symptoms.

Of course, the terminology in historical documents will be much different than modern psychological clinical terms. Terms to look for include nightmares, haunting, nerves and nervous breakdown, and sleep troubles.

Addiction to Trauma: The Thrill of the Kill

Here is a paradox in the study of stress symptoms from perpetration that has been noted in several studies: Instead of horror, there is often a sense of thrill, of exhilaration, that accompanies the act. Furthermore, this thrill can be addictive.

Grossman (1995: 234-237) characterizes exhilaration as a common stage in the killing process. He quotes a Rhodesian veteran: "Combat addiction... is caused when... the body releases a large amount of adrenaline into your system and you get what is referred to as a 'combat high.' This combat high is like getting an injection of morphine—you float around, laughing, joking, having a great time, totally oblivious to the dangers around you... Problems arise when you begin to want another fix of combat, and another, and another, and, before you know it, you're hooked. As with heroin or cocaine addiction, combat addiction will surely get you killed. And like any addict, you get desperate and will do anything to get your fix." Many of the examples Grossman offers involve fighter pilots. He does not know whether they actually experience this thrill sensation more frequently, but they may be more willing to talk about it since descriptions of downed aircraft may be more tolerable in polite company than more graphic descriptions of face-to-face killing.

Solursh (1988) reports on interviews with 22 combat veterans that showed that prominent in 19 of them was a "clear history of combat, killing and flashback or nightmare recall as excitatory, similar to an adrenergic 'rush.'" He quotes a case study, a combat veteran who says: "It's hard to duplicate this high with drugs, except the only drug I know is cocaine, that would reproduce this high for you, the same type of high of killing."

As these were selected to be men with chronic PTSD, it is clear that this "rush" is not protective against PTSD and may well aggravate it. Solursh suggests the possibility that the intrusive imagery symptoms of nightmares and flashback may be accompanied by this "rush," thereby contributing to maintaining that symptom. He reports the symptoms to be especially strong when respondents were responding to demands of the workplace or authorities under whom they felt powerless. The re-enactment is a mental assertion of power. Thus, the exciting nature of the original event gets repeated in the

benefit of excitement in the recall. However, as is common with “highs,” there is a let-down period afterward, when powerlessness and frustration returns.

Nadelson (1991) reports on five case studies of combat veterans who had an “attachment to killing.” He similarly finds analogies to a high from drugs made among these men. Wikler (1980) is another who through interviews with veterans was told that there were soldiers who were referred to as the “killer types,” those who “seemed to enjoy their work, getting ‘kicks’ or ‘highs’ from killing” (p. 98).

There is a possible biological explanation for this “rush.” Stress situations, especially highly traumatic ones, can lead to endogenous opioid analgesia (van der Kolk et al., 1985; Southwick; Yehuda; Morgan, 1995) and related complicated biochemical reactions. That is to say, during high stress the brain naturally releases opioids, which in the world of artificial drugs is related to morphine, heroin, and cocaine. The veterans’ use of those specific drugs as analogies to the high they feel is not coincidental. There is a hypothesis of an actual biochemical connection. This leads to the irony that a reaction of a sense of thrill can still be seen as a reaction to trauma. Those brain-produced opioids are an adaptation for those in danger, because they relieve extreme pain. It is becoming addicted which is not adaptive. In historical terms, it may offer some insight into the term “bloodthirsty.”

It also sheds new light on the thrill associated with blood sports such as cockfights and bullfights and hunting. As Grossman (1995) says in this context, “What hunter or marksman has not felt a thrill of pleasure and satisfaction upon dropping his target?” (p. 234). Hunting and similar activities can even be a continual socially-accepted means of re-experiencing the trauma of killing as a substitute for flashbacks, nightmares, and other intrusive thoughts, serving a similar function.

The Spanish bullfighter interviewed by *60 Minutes* (air date January 11, 1998) persists in plying his trade in spite of the danger involved (his father was killed) and objections of his family. This suggests the possibility of addiction. From the same report, an American bullfighter in Spain is quoted as saying, “When you come out of this experience and—you appreciate everything you have around you; the skies look bluer, the birds sound better, the food tastes better... I mean, if I could tell you what it was, maybe we could bottle it and sell it and save a lot of people—you know, if we could bottle the adrenaline, if we could bottle that feeling a matador has after a fight and sell—and it’ll be wonderful—manic—manic depressants and people. Be a wonderful thing.” Is there a resemblance between this statement and others made about those times when the feeling is in fact put in a bottle, a syringe, or a powder?

Violence Begets Violence: Theories of Causes of Violence

In addition to this possible direct method of having acts of violence perpetuate themselves into more acts of violence, there are many theories in psychology that deal with the psychological underpinnings of violence which is planned by groups. These are already helpful in understanding how killing events occur, but there is also a role for PITS to cause or exacerbate them.

One category of psychological causes of violence is the attitude and thoughts held about the targets of the violence. Bandura et al. (1996) pull together a set of such reasoning. The first mechanism is mentally transforming reprehensible conduct into good conduct, through moral justifications, comparisons to worse conduct to make the conduct in question seem less consequential, and euphemism. The second mechanism is displacing or diffusing the responsibility for the conduct or for its detrimental effects. This is otherwise known as “scapegoating.” The third mechanism is to minimize, ignore or distort those detrimental effects. The fourth is to dehumanize or blame the victim; an excellent documentation of the similarities in the language used to dehumanize various groups by characterizing them as garbage, parasites, non-persons, diseases, and so forth can be found in the book *Dehumanizing the Vulnerable: When Word Games Take Lives* (Brennan, 1995).

All of these can help facilitate violence in a variety of situations, but the symptoms of PITS when present in leaders and/or a large portion of the population can also contribute to their use. The symptom C(5), a feeling of detachment or estrangement from others, and symptom C(6) of an inability to have loving feelings, can clearly exacerbate or cause the practice of using dehumanizing language about the targets of violence. These could do the same for euphemisms about the actions carried out against them. They certainly support minimizing or ignoring the effects of the actions. Those two symptoms along with symptom D(2), irritability or outbursts of anger, render the occurrence of scapegoating more likely.

Another common phenomenon in the action of violence is to use thought processes not about the target of violence but about the action itself. One can separate one’s self from the violence one is doing by a process called distancing. Physically, this can involve having the violence happen in a separate place where the person causing it does not see the results, as with Nazi doctors selecting who lives and who gets sent to the gas chamber, or as with soldiers pushing a button to bomb a location by airplane. Even when the violence is in close proximity, however, and the results are clearly visible, the human mind can do mental distancing. Distancing can take the form

of denying that the event is happening, even if it is in front of one's eyes and one is causing it, or it can take the form of assertively not noticing the event by studiously looking the other way.

Any mental strategy that puts a mental distance between the doer and the deed must include avoidance strategies. Most particularly, such strategies can be facilitated by the availability of the numbing that helps define symptoms cluster C. When PITS precedes the violent action, and includes this numbing, then the existence of PITS can help facilitate violent action, and therefore contribute to the causation of such action. Other aspects of the environment will also be necessary, but when those circumstances do in fact exist, the existence of PITS can mean that more violence then occurs than would otherwise take place. PITS could also interfere with efforts at conflict resolution.

One of the oldest theories for psychological causes of violence is the Frustration-Aggression Hypothesis. This has turned out to be limited, in that much aggression is caused without any frustration, and frustration can exist in great amounts without any aggression ever taking place. The hypothesis is better at accounting for riots and lynch mobs than public policy. Still, riots and lynch mobs are group violence, and if members of the mob have PITS by virtue of having been combat veterans or similar jobs, then the symptom D(2) of outbursts of anger can help spark group violence in the same way it sparks individual crime.

One of the major sources of violence which has nothing to do with frustration or anger is the common habit of obedience to authority, even when that authority is destructive. This was famously illustrated through the much-replicated Milgram electric shock experiments (Milgram, 1976; Blass, 2000). The original idea in the 60s was to first test Americans and find that they would generally not comply when an experimenter instructed them to continue giving higher levels of electric shocks to a "learner" (actually, a confederate of the experimenter). They would then run the same experiments in Germany and find greater compliance, as could be seen by the then fairly recent experience of the Nazis. They were looking for what the difference was. However, they found solid majorities of compliance among Americans, and already had their answer as to how the destructive obedience to authority could occur.

This launched one of the major findings of social psychology: that even among people who had no animosity toward the "learner," who expressed that they were suffering great tension, and who were clear that they preferred not to do this, still tended to comply with the demands of authority. No threats or promise of rewards were necessary.

This does help to account for how people can get into PITS-causing situations without having suffered prior traumas or having any form of hatred or anger. Though it may be stressful, it is not necessary for there to be emotions against the target of the violence.

However, those people who already have PITS may, to a certain extent, be even more susceptible to the destructive demands of authority. The estrangement from others, blocked emotions and numbing can remove some of the major resources available to aid in noncompliance. Those who did not comply with the experiment most commonly cited the effect on the learner, which required a sensitivity to the learner that could be absent in someone who was in a state of numbness or detachment from others.

Noncompliance with the experimenter was also increased when a parallel experiment was run in the same vicinity and the participant in it refused to comply. This role model of noncompliance increased noncompliance. It would also require a level of social coherence that could be absent in someone suffering from a sense of detachment or estrangement from others.

The question of why the person in authority expects violent behavior and gives the demands for compliance can also be influenced by suffering from PITS symptoms. The same symptoms that make compliance more likely also make the issuance of the orders in the first place more likely.

Finally, the psychological theory involving the connection of oversimplification of thinking to violence can have application here. This affects the ability to ascertain what is or is not a real threat. The same problems for individual crime can cause problems in large groups. Content analysis studies of the rhetoric of leaders as international crises occur and they move toward war have shown a marked lowering in scores for a construct called "integrative complexity" (Conway, Suedfeld and Tetlock, 2001). This construct has two features. One is differentiation, which is the degree to which people see differences among aspects of or perspectives on a particular problem. The other is integration, which is the degree to which people then relate those perspectives to each other within some coherent framework. The basic idea is that leaders who take an over-simplified, inflexible approach to any conflict which could lead to war are more likely to end up in war. Leaders who are more flexible, willing to compromise, able to understand the other side's perspectives, are less likely to get into a war.

Studies which have done content analysis of public speeches and similar documents before the outbreak of various wars have shown that a drop in the integrative complexity scores is a good predictor of war. In two-sided wars, the scores drop on both sides as both sides move to war. In one-

sided wars in which one nation attacks another, the scores drop on the attacking side but go up for the defending nation—defenders are hoping for a negotiated solution that avoids war. In revolutions within a country, analyzed as far back as that of Cromwell in England, the scores drop as the revolution is successfully taking over.

There are some laboratory studies in which people do simulations of international conflict which suggest mechanisms whereby low complexity may be a cause rather than just a symptom. Those who came into the situation with low scores did tend to move to more violent solutions within the same situations as compared to those who came in with high scores. They got frustrated more quickly and they lacked the kind of negotiating skills that require complex thinking.

The process of integration and of dissociation go in the opposite directions. Inasmuch as the mental process of integration of different perspectives is necessary to avoiding moves toward war or other violence, any sense of dissociation can interfere with this ability. Additionally, detachment or estrangement from others would reduce motivation to even try to integrate differing perspectives.

Reasons that the authors suggest for why there is a change in the scores of content analysis of rhetoric leading up to wars include that high levels of stress deplete the cognitive resources needed for complex thinking, group dynamics, and the characteristics of individual leaders (Conway, Suedfeld and Tetlock, 2001). The arousal states, hypervigilance, sleep disturbances and so on constitute a continuing level of stress for those who already suffer PITS. The associated dissociation states along with intrusive imagery can add further confusion as to what is or is not a threat or what is a threat that can be dealt with in a negotiated way.

Group dynamics includes the groupthink model, whereby pressures for consensus within a group escalate and individuals therefore go along with group decisions they would regard as foolish if they were making the decision as individuals. Part of this process is that those individuals must lower the complexity of their thinking. Studies of those in historical situations classified as groupthink scenarios back this up. They also find that groups of individuals who are lower in complexity to begin with seem to be more likely to get into groupthink situations. This could be expected of many of those with PITS symptoms.

Remember, leaders with post-trauma symptoms can be super-functional—that is, workaholic as a way of coping. Even though if PTSD were in the form of something to be diagnosed it would be a disorder that would keep

people from being good leaders, the symptoms themselves are often present in gung-ho officeholders. Such people can be found in government leadership positions throughout history. Former United States Senator Robert Kerrey, for example, publicized his emotional aftermath to killing in Vietnam in a way that would remind anyone that was familiar with PTSD and of its symptoms (Vistica, 2001). Kings, dictators, prime ministers and presidents along with cabinet ministers, legislators and judges can similarly be drawn from combat veterans and police who have engaged in killing or torture. Political circumstances, past and present, have allowed the traumatic aftermath of killing to have a psychological effect on decision-making for more killing.

Nonkilling

For those that already suffer from the aftermath of killing, therapy and healing may be necessary for national reconciliation efforts and for prevention of further problems. If post-trauma symptoms make them more likely to perpetrate again, in the form of domestic abuse, street crime, or further participation in the original combat or massacre or torture activity, then therapy of those individuals may not merely be good for those individuals, but for prevention efforts for society as well.

Public policy can take PITS into account and not treat those that are expected to carry out killing as unfeeling automata or as people simply doing unpleasant jobs. Part of the ideology of genocide, torture, or massacres is that those who carry them out benefit from the activity. Efforts at arranging punishment through political means have been used to counter this idea. It may help to add education on how perpetrators do not escape with impunity even if political arrangements are inadequate.

In addition to this practical point, we need to remember the positive point of what this says about humanity. The idea of Perpetration-Induced Traumatic Stress suggests that the human mind, contrary to certain political ideologies, is not only not well suited for killing, but that the mind tends to find it repulsive and does so for a long stretch of time. Nonkilling is not merely a good ethical idea. It is necessary for mental health.

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Dehumanization as a Prerequisite of Atrocity and Killing

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In the beginning we create the enemy. Before the weapon comes the image. We think others to death and then invent the battle-axe or the ballistic missiles with which to actually kill them. Propaganda precedes technology. (Keen, 1986: 10)

Dehumanization and Atrocity

This chapter will deal with the various forms of dehumanization that precede atrocity and killing and will consider various psychological perspectives that may illuminate these processes. It will extend previous published work on religious fundamentalism, globalization, anxiety, and intercultural conflict as viewed through relevant theoretical lenses including Integrated Threat Theory and Terror Management Theory.

How is it that we can violate primary values like “thou shalt not kill” by killing and even committing genocide? What psychological mechanisms exist that promotes the processes of dehumanization that are necessary to facilitate the violation of this primary value? What forms of dehumanization are common and how can we inoculate ourselves against them and control for our murderous potentials. The essential proposition is that if we can interfere with the processes of dehumanization we may prevent killing and atrocity. As Keen (1986) observed, war propagandists almost always demonize or dehumanize the enemy. As a rule, human beings do not kill other human beings. Before we enter into warfare or genocide, we first dehumanize those we mean to eliminate.

His description of a process of dehumanization is excerpted below:

To Create an Enemy start with an empty canvas. Sketch in broad outline the forms of men women, and children. Dip into the unconscious well of your own disowned darkness with a wide brush and stain the strangers with the sinister hue of the shadow. Trace onto the face of the enemy the greed, hatred, carelessness you dare not claim as your own. Obscure the individuality of each face. Exaggerate each feature until man is metamorphasized into beast, vermin, insect. Fill in the background with malignant

figures from ancient nightmares—devils, demons, myrmidons of evil. When your icon of the enemy is complete you will be able to kill without guilt, slaughter without shame (1986: 9).

Could soldiers kill without considering the enemy an atheist barbarian, sadist rat, or some lower form of life? Could we bring ourselves to kill people we considered as valuable as ourselves? Could we go to war without attributing evil to the enemy? Dehumanization is necessary in order to get ordinary people to kill, and to support killing in their name. If we are to prevent atrocity we must consider its precursors, correlates and mediators.

Zimbardo (2007) has long been concerned with the processes through which ordinary, “normal people” can be transformed into indifferent or even enthusiastic perpetrators of “evil” or atrocity. He suggests that processes of dehumanization confuse the mind into thinking that other people are less than human. In American history we see that the genocidal policies toward Native Americans and the enslavement of African people were justified by the belief that these peoples were less than human. The U.S. constitution enshrined this belief in its description of African slaves as only 3/5th human. The description of Native Americans as vicious savages devoid of “God” justified murderous and assimilationist policies that reduced any dissonance arising from such brutal treatment used by the good and god-fearing settlers of the “new land.”

The consequences of dehumanization may range from the inconvenient to the catastrophic. As described by Zimbardo (2007), once certain groups are stigmatized as evil, morally inferior, and not fully human, the persecution of those groups becomes more psychologically acceptable. Restraints against aggression and violence begin to disappear. Not surprisingly, dehumanization increases the likelihood of violence and may cause a conflict to escalate out of control. Once violence and death has occurred, it may seem even more acceptable for people to do things that they would have regarded as morally unthinkable before. The processes of dehumanization must be understood and disrupted if exploitation, derogation, atrocity and even annihilation are to be prevented. How and under what circumstances do we dehumanize our fellow humans? How can this process be disrupted?

Sources and Dynamics of Dehumanization: Fear and the Perception of Threat

Fear is the mind killer
(Herbert, 1965)

Integrated Threat Theory (Stephan and Stephan, 1996) proposes that four types of threat contribute to prejudice and fear based behavioral responses.

They are: realistic threat (i.e., competition for scarce resources); symbolic threat (i.e., threats to transcendent cultural symbols); intergroup threat (i.e., negative prior experience) and negative stereotypes. The human response to such threats and the fear they generate has produced horrific behavioral responses. Fear motivates humans to lose sight of the humanity of others enabling terrible acts of atrocity in a blind attempt to alleviate the aversive state of fear and to purge this world of perceived evil (Becker, 1975).

Fear is an innate, primal emotional reaction that involves a feeling of alarm or dread invoked by some specific object or situation that signals threat and danger. Fear may serve a useful function by mobilizing us to respond to a threat. Manageable levels of both fear and anxiety can facilitate adaptive functioning (note: although fear is usually defined more specifically than anxiety they will be used interchangeably in this paper as they are experienced as related and aversive affective states). However, if the intensity is too great, maladaptive responses may cause freezing, withdrawal, disorganization, confusion and helplessness (Abramovitz, 2003). Fear may motivate both adaptive and maladaptive human responses. It may be seen as a normal human response designed to get the person's attention to a dangerous situation. Fear may be transformed into generalized retaliatory anger and aggression that may serve to create the conditions for greater fear and result in constraints of thought and action designed to reduce the intensity of this aversive affective state.

Fear, whether manipulated, dispositional, or existential is related to rigid adherence to ideology, derogation of the apparently different, attributional bias, tunnel vision and other contributors to the production of killing and atrocity. Fear induces people to willingly surrender their freedoms in order to escape this aversive state (Fromm, 1941). Fear increases people's vulnerability to demagogic persuasion. Fear may motivate both adaptive and maladaptive human responses. It may serve to focus attention on a real danger or it may provoke a generalized retaliatory response that creates consequences that produce more fear. Fear may provoke racial or ethnic hatred by attributing "evil" attributes to those associated with that fear. The management of our responses to fear in these fearful times is a necessary life skill. Can we courageously respond to fear in ways that do not threaten our highest values and that increase the probability of our survival?

The events of September 11, 2001 made fear and particularly the fear of death a palpable reality to Americans who have enjoyed the illusion of the security offered by its geographical insularity and seemingly omnipotent power relative to other nations of the world. The demagogic manipulation of that fear

for political motives became increasingly apparent as periodic but nonspecific “terror alerts” assault our basic strivings for safety and security. The nation followed its leader to purge the world of the “evildoers” who were held to be responsible for the attack. The response was ferocious and directed at a nation that was not involved in the attacks. Becker (1971: 161) wrote:

It is [fear] that makes people so willing to follow brash, strong-looking demagogues with tight jaws and loud voices: those who focus their measured words and their sharpened eyes in the intensity of hate, and so seem most capable of cleansing the world of the vague, the weak, the uncertain, the evil. Ah, to give oneself over to their direction—what calm, what relief.

How do humans respond to fear? The above quote, (“...what calm what relief”) evokes the perspectives of behaviorism. Fear and anxiety are highly aversive affective conditions. Any response that serves to alleviate this aversive condition is reinforced (negative reinforcement). The apparent certainty, decisiveness, and “moral clarity” of the charismatic or demagogic leader who serves to alleviate the aversive condition of fear and anxiety will therefore attract adherents. In terms of the principles of classical conditioning, any stimulus (i.e., Saddam) paired repeatedly with the unconditioned stimulus of the horror of 9/11 would then become a conditioned stimulus evoking the fear response. Opinion polls indicated that most Americans accepted the pairing of Saddam with 9/11 thereby facilitating the invasion of Iraq.

History records that in the U.S. (and elsewhere) pervasive fear has led to the restriction and violation of human rights. The “Red Scare” of 1919 produced the Palmer Raids resulting in the confinement and deportation thousands of immigrants and “suspicious” looking people. The fear generated by the attack on Pearl Harbor produced the internment of Japanese-American citizens. Fear of communism produced the McCarthy era where an “evil” was identified (communism) and those in apparently ideological proximity to that “evil” (i.e., liberals) were also vilified as “fellow travelers.” In the wake of 9/11 the “Patriot Act” that was quickly and reflexively passed in Congress without careful consideration granted the government previously unimaginable power (i.e., to investigate library records of citizens) to scrutinize those aspects of life previously assumed to be private.

While fear may be seen as a normal human response designed to get the person’s attention to a dangerous situation it also produces tunnel vision. Anxiety and fear narrow the focus of attention, often resulting in over focusing and missing the context of the observation that may alter the per-

ception in more accurate and less threatening ways. Fear overwhelms nuance, and complexity. Fear promotes illusory correlations that compromise judgment (Baumann et al., 2001). Fear may provoke racial or ethnic hatred by attributing “evil” attributes to those either associated with that fear or who do not support our interpretation of reality. Current theory and empirical work emerging from social psychology sheds light on the consequences of fear resulting from humans when reminded of their mortality (see Pyszczynski, Solomon and Greenberg, 2003; Greenberg, Solomon and Pyszczynski, 1997). The events of 9/11 represented just such a reminder.

Of course the Nazi ideology that prevailed in Germany provides the clearest example of the juxtaposition of fear, dehumanization and atrocity. Koenigsberg (2005) described the elements of this murderous ideology from a psychoanalytic perspective. The central fantasy contained within Hitler’s ideology may be summarized as follows:

- The nation is a living organism consisting of the German people, who constitute the substance or “flesh and blood” of this organism.
- This essentially healthy, sound body politic is, however, being attacked by a virulent, internal force working toward its destruction.
- The source of the destructive force within the national body is the Jew or “Jewish Bolshevik.”
- Insofar as the purpose of politics is to “maintain the body of the people,” therefore any action is justifiable if it serves to eliminate the (evil) force working to destroy Germany.

The objective of Nazism, then, was to take whatever actions were necessary to assure that Germany would continue to live. Hitler aspired to “save Germany from death.” Hitler ruthlessly committed himself and his party to do whatever necessary to destroy the pathogens whose continued presence within the body politic, Hitler believed, would lead to the demise of the nation. So the national organism was threatened with destruction by nonhuman pathogens determined to pollute, weaken and destroy the purity of the nation. The result of this manipulation of fear was dehumanization, atrocity and annihilation. The “Jew” was a pathogen not a human being in this deadly ideology. Perhaps the devastation and horror wrought by this poisonous worldview is the most compelling testimony of how people defeat themselves by trying to bring about “absolute purity” into the world and how a given society tries to get rid of guilt and the terror of inevitable death by “laying its trip on its neighbor” (Becker, 1975: 168).

Culture Threat: Cultural Diversity and Intercultural Conflict

Psychological theory and research suggest that cultures serve as a psychological defense against the terror inherent in human existence and that people derive their identities and sense of value from the groups with which they identify (Tajfel and Turner, 1979). Marsella (2005) explored the role of differing constructions of reality and their relationship to human conflict. He notes that differing constructions of reality do not inevitably result in conflict and that conflict does not necessarily result in violence. However, differences in the construction of reality that are embedded in unassailable belief systems, such as those associated with fundamentalist political, economic and religious systems, can elicit and sustain such atrocities as ethnic and religious cleansing, genocide, and torture. He argues that the power of cultures to construct our realities and the potential of cultural differences to fuel conflict are due the human reluctance to tolerate challenges to these constructions of reality and the unacceptable levels of uncertainty, doubt and anxiety that such challenges tend to produce. He described the following pathways to violence, war and its associated potential for atrocity:

- Perception of danger to national or group survival, identity, well being
- Perception of the “other” as evil dangerous, threatening
- Perception of situation as unjust, unequal, unfair, humiliating, punishing
- Perception of self as self-righteous, moral, justified, and “good” by virtue of religion, history, identity (e.g., “American Exceptionalism”).

Considering the vital psychological functions of culture (Becker, 1971; 1973; 1975, Greenberg, Solomon, and Pyszczynski, 1997) the question that arises is whether culturally diverse peoples can co-exist in mutually enriching ways rather than killing each other in bloody conflicts based on alternative constructions of reality? The issue is of vital importance. In his provocative and influential work Huntington (1996: 28) stated that “In this new world the most pervasive, important and dangerous conflicts will not be between social classes, the rich and the poor, or other economically defined groups, but between peoples belonging to different cultural entities.”

Terror Management Theory

Cross-cultural psychology has been concerned with the questions of what is truly universal in humans and those aspects of human experience that vary culturally and idiosyncratically. We can assert with some confidence that all humans are born, all humans die and that these events may

be viewed and addressed differentially across cultures. We can also assert that humans possess relatively sophisticated cognitive abilities and potentials that allow us to reflect on ourselves, consider our mortality and to construct meaning. Cultural conflicts may be fueled by cultural differences relating to these core human concerns. The varying answers that cultures provide to these critical and common human problems contextualize Becker's (1971) proposition that cultural differences are threatening. They threaten the faith of anxiety-prone humans in the validity of the heroic, death-denying, transcendental meaning systems that allow for meaningful, self-esteem constructing, and adaptive action in a terrifying world. Becker (1975) Terror Management Theory (TMT) researchers (see Greenberg, Solomon and Pyszczynski, 1997) proposed that cultures are fundamentally and basically styles of heroic death denial and that the potential cost of such immortality ideologies can be examined empirically.

Becker (1975: xvii), whose ideas and analysis inspired the development of Terror Management Theory (TMT) by experimental social psychologists, proposed that "man's natural and inevitable urge to deny mortality and achieve a heroic self-image are the root causes of human evil. Why would this be so? How can we properly account for truly vicious human behavior? Evidence indicates that people attempt to defuse the threat posed by alternative worldviews by disparaging them and the people who subscribe to them, attempting to convert them, inflicting pain or simply killing them (McGregor, et al., 1998).

Becker (1975: 3) considered a central and problematic aspect of the human condition. "The unique paradox of the human condition: that man wants to persevere as does any animal or primitive organism: he is driven by the same craving to consume, to convert energy, and to enjoy continued experience. But man is cursed with a burden no animal has to bear: he is conscious that his own end is inevitable". Becker, and TMT theorists (see Greenberg, Solomon and Pyszczynski, 1997), proposed that humans could not live with the prospect of death and erected cultural symbols that do not age or decay to quiet the fear of an ultimate end and to provide some promise of indefinite duration. In short, humans transcend death via culture by finding a meaning for life and some kind of larger scheme into which one fits. He saw all culture, in this sense as essentially sacred and that spirituality represents a burning desire of the human creature to count, to make a difference on the planet because we have lived, worked, loved and suffered. We need to know that our lives have somehow counted and that what we really fear is "extinction with insignificance" (Becker, 1975: 4). Humans, then, transcend death via culture in literal and symbolic ways. Competing

death denying ideologies offer the potential for violent conflict because if the worldview of the different “other” is true then how can the anxiety buffering “truth” of one’s own view be assumed.

TMT proposes that the cultural anxiety-buffer consists of a world view in which one believes along with culturally prescribed standards of being and acting in the world that, if achieved, provide self-esteem and the conviction that one is indeed of value in a meaningful world. An essential function of culture, then, is to make continued self-esteem accessible and possible so anxiety-prone humans can obtain a state of relative equanimity in a terrifying existence where annihilation is the only certainty” (Salzman 2001: 178). Some 400 studies testing TMT hypotheses in over 14 countries have found have found that reminders of death (mortality salience) produce tendencies to:

- Conform more closely to the norms of one’s culture and punish violators of those norms more severely.
- React more negatively to those whose with conflicting worldviews
- Increase worldview defense (“bolstering” CWV)
- Increase willingness to inflict pain on “others”

So in summary, culture serves as a psychological defense, cooperatively constructed and maintained to manage the terror inherent in human existence. Culture makes self-esteem possible by making “right” actions and ways of being available to people (Becker, 1971) that allow for the construction of a sense of meaning and value (self-esteem). Self-esteem then, is a cultural construction and serves as an anxiety buffer against our previously described existential dilemma. Culture-threat and resultant self-esteem (anxiety buffer) threat create a motive to displace the resultant anxiety onto the “evil other” and to defeat that evil.

Threats to the meaning and value-conferring constructs (prescribed by the internalized cultural worldview) that protect people from mortality concerns will (Greenberg, Landau and Arndt, in press): increase the accessibility of death related thoughts (death thought accessibility) and motivate terror management defenses toward the threat (i.e., distancing, derogation, demonization or even annihilation). This type of threat would be consistent with the “symbolic threat” described by Integrated Threat Theory (Stephan and Stephen, 1986). The people who attacked symbols of U.S. economic and political power on September 11, 2001, also attacked the cultural anxiety buffer of U.S. citizens as well as making mortality salient through their actions. In the process, they fulfilled, what they apparently saw as cultural prescription for a heroism that promised immortality.

So, TMT proposes that cultural worldviews and self-esteem derived from those worldviews protect people from their fear of death. Research has shown that threatening peoples' worldviews, or even reminding people that worldviews different from their own do exist, elicits both increased accessibility of death-related thoughts and hostility toward those who hold divergent worldviews. However, the content of a people's worldview matters and the centrality of values such as compassion and tolerance have consequence. Early TMT (Greenberg, et al., 1992) research has shown that death reminders can increase tolerance and reduce hostility among people who hold the values of compassion and tolerance as central aspects of their worldviews. Current TMT research is aimed at extending these findings and hypothesize that activating a sense of common humanity can moderate defensive responses to cultural and worldview differences. This line of research offers hope that educational interventions and the priming of our higher values may moderate our more destructive potentials.

Cultural Change, Culture Threat and Cultural Retrenchment in the Time of Obama

An example of the effects of cultural change in a time of heightened economic anxiety may be seen in the reaction to the election of Barack Obama. People who derived their sense of value in a system that accorded them with perceived status and privilege seemed to be reacting fearfully and angrily to a perception of "losing our country." In the aftermath of the election, sales of guns and bullets have surged across the United States. The U.S. is going through major structural changes economically, demographically and politically and culturally. These changes are causing deep anxiety among the population (Southern Poverty Law Center Report, Fall 2009). Signs at such rallies often state "We Want Our Country Back." The reader is invited to speculate who the "WE" is and who it is that "WE" want our country back from.

There is more. Obama and the change he represents seems to threaten the cultural anxiety buffer of those previously privileged both politically and psychologically and he, therefore, has been the subject of demonization as an "other". This could be very dangerous.

At numerous "Tea Party" rallies, signs were displayed caricaturing Obama as Bin Laden in full regalia, a minstrel in whiteface, and even as the Anti-Christ. The *New York Times* (April, 4, 2010) reports that "Tea Partiers" are wealthier and better educated than general public. They tend to be Republican, White male and married and consider themselves "angry." They say that

Obama does not share the values of most Americans. Moreover, the Southern Poverty Law Center (2009) reports that the anti-government militia movement is surging across the country as fears of a Black man in the White House, changing demographics and conspiracy theories spread by mainstream figures have helped revive a movement that has been dormant for over a decade. At the height of the militia movement in the mid 1990's 168 people were killed in the bombing of Oklahoma's federal building. A key difference, suggests the report, between today and the 1990's is that the federal government is now headed by a Black man. That fact coupled with high levels of nonwhite immigration has helped infuse the militia movement with a strong element of racial animus. As Lee (2000) noted, right wing extremists present themselves, "first and foremost" as protectors of Western Europe's cultural identity (bolstering the threatened cultural worldview?).

Symbolic (Cultural) Threat and Realistic Threat: September 11, 2001

The political response to the September 11th attacks may be seen as the equivalent of a "naturalistic" experiment created by mortality salience for a population that previously considered itself secure by virtue of apparently unchallenged American power and the insularity provided by its geography. Empirical research testing TMT has provided important perspectives on the human response to the awareness of mortality and the apparent need to mitigate its effects. This response seems to include the heightened need for certainty and closure (Dechesne and Kruglanski, 2004) and the enhanced attractiveness of charismatic leaders who offer the soothing nostrums "moral clarity" and the opportunity of belonging to an entity that is special and that transcends the mortal limitations of self.

We have witnessed how public support for George W. Bush dramatically increased after 9/11 as he became imbued with the qualities of "charisma" that seemed nonexistent prior to the terrorist attacks. Lipman-Blumen (2000) noted that charismatic leaders seem to appear in times of great distress and tend to espouse a decidedly radical vision that offers the promise of resolving the crisis. The "Bush doctrine" of pre-emption and the quick approval of the "Patriot Act" represent such radical response to the mortality threat posed by "the terrorists" and "evil doers." Indeed empirical tests of this proposition have supported the notions that reminders of death dramatically increase preferences for charismatic leadership (Cohen, et al., 2004; Landau et al., 2004). September 11th reminded us all of the precariousness of our existence. Indeed, Landau et al., (2004) described four ex-

perimental studies that found that the induction of mortality salience increased support for President Bush and his counter terrorism policies; that subliminal exposure to 9/11 related stimuli increased accessibility of death-related thoughts (thus establishing a link between 9/11 and death concerns); that the salience of 9/11 increased support for Bush and his policies; and that subjects in the mortality salience condition (compared to the control group) reported being more likely to vote for Bush in the election.

The “subliminal exposure to 9/11 stimuli” was observable in the immediate aftermath of 9/11 on the news broadcasts of the most popular cable news network. In the lower left hand corner of the screen we were informed of the “terror alert level” while the dominant section of the screen focused our primary attention on relatively innocuous stories such as the frivolities of celebrities while yet another band of text broadcasts yet another message. Given that the events of 9/11 have generated a pervasive sense of mortality salience throughout the country, these subliminal messages are potentially consequential. Experimental data suggests that intimations of mortality enhance preferences for charismatic leaders increasing potential for a reactive vote for charismatic leaders offering fear reduction rather than a rational vote for leaders supporting democratic ideals such as freedom, tolerance and nuanced analysis.

The relationship between fear and persuasion is complex. While Leventhal (1967) found that fear works if the message includes solution to remedy the fear. Too much fear arousal without giving people an opportunity to do something about the feared stimuli produces the tendency to tune out the message. TMT would predict that a message accompanied by the induction of mortality salience (i.e., the threat of terrorist attack) would have great persuasive appeal if accompanied by messages that tap into people’s desires for faith in the cultural worldview, validation of its values, and self-worth. (Jeff Greenberg, personal communication, July 17, 2004).

The shedding of blood at the outset of violent conflict creates the condition of mortality salience thereby activating TMT defenses that include distancing, derogation, demonization and even the annihilation of the different “other.” Under such circumstances, fundamentalist worldviews that offer a clear vision of an orderly meaningful world are likely to be particularly appealing when thoughts of mortality are activated. Fundamentalism is source of deadly intercultural conflict. “Fundamentalism” offers clear and achievable standards of value to the adherents of the fundamentalist worldview. They tend to offer certainty, predictability and an achievable sense of value. Such formulations do not support compassion or tolerance for those who differ on core existential concerns.

Fundamentalism

Altemeyer and Hunsberger (1992) define fundamentalism as the belief that: there is one set of religious teachings that clearly contains the fundamental, basic, intrinsic, essential, inerrant truth about humanity and deity and that this essential truth is fundamentally opposed by forces of evil which must be vigorously fought. Fundamentalists believe that this truth must be followed today according to the unchangeable practices of the past and that those who believe and follow these fundamental teachings have a special relationship with the deity. So, fundamentalists of all types believe that they are opposed by forces of evil that must be confronted and defeated. As Becker (1975: 5) noted that in order to avoid and defeat evil in the world “man is responsible for bringing more evil into the world than organisms could ever do merely by exercising their digestive tracts.” He goes on to consider the destruction caused by the motive to purge “evil” from the world. He could be speaking of the destruction visited on the world by the various wars we have waged against what we label as evil whether it is witchcraft, communism, drugs or terrorism.

Fundamentalism provides a unifying philosophy of life and satisfies the human need for meaning. As Stevens notes: “[Fundamentalism is unusually capable of providing meaning through giving a sense of coherence to a fragmented world” (Stevens, 2002: 34). . It is only in a meaningful world that anxiety-buffering self-esteem can be constructed (Salzman, 2003). A meaning system endows life with personal significance and allows an individual to see one self as having significance and value. Hood, Hill and Williamson (2005), in their Intratextual model of fundamentalism, proposed that fundamentalism differs from other religious expressions in the elevation of a sacred text to a position of supreme authority. For fundamentalists the sacred text is the sole source of meaning. All concerns are subordinated to the ultimate concern of living according to divine will as indicated in the sacred text. Fundamentalists adhere to a literal interpretation of the sacred text. The sacred text (e.g., *Bible*, *Qu’ran*) subordinates all other potential sources of knowledge and meaning. They suggest that religious fundamentalism provides a “unifying philosophy of life within which personal meaning and purpose are embedded” (Hood, Hill and Williamson, 2005: 15). When such a belief system is threatened dehumanization and demonization often result. As noted previously, fear tends to produce a rigid adherence to ideology, derogation of the apparently different, attributional bias, tunnel vision and other contributors to the production of killing and atrocity. Fundamentalisms may be considered, then, to be a response to anxiety (Salzman, 2001b; 2008).

The search for “purity” seems related to the motive to purge the world of “evil.” These impulses (i.e., seeking racial “purity”) have visited great destruction on the world. The motive to recover or put (a sacred) history “right” seems common across various fundamentalisms as is its nature as a closed system. Indeed, Becker (1975), Fromm (1941), Rank (1958) and Lifton (1999) argued that the meaningfulness of one’s life may be enhanced by worldviews depicting one’s group as engaged in a heroic struggle against evil and thus may be especially useful in warding off death anxiety.

“Kita”, “Kami” and the “We-World”

Can there be a “we” without a “they?” Can there be an “us” without a “them?” Can there be an inclusive “we” that satisfies the physical and psychological needs that motivate the construction, maintenance and defense of our social identities and cultural worldviews? Hassan (2004) suggests that we can indeed strive toward the construction of such a “we-world.” He identifies two words used in Indonesia that connote different constructions of “we.” The words are “kita” and “kami.” “Kita” is an inclusive “we” for which there is no “they” or “them.” It is a shared world. It is a mode where every constituent part is free to develop and maintain their individual identities (“kami”). “Kami” affirms its shared identity by excluding others outside its boundaries. It is a “we” that maintains the demarcation separating those who belong and those who do not. It affirms the in-group and excludes the out-group. Hassan suggests that many “kami’s” can be part of an inclusive “kita” and that there is a constant oscillation between “kita” and “kami” and that cultural diversity is not by itself a hindrance for the sharing of a “we-world.” Cultural diversity implies cultural freedom that provides alternative ways of living and most importantly it allows us to inject meaning into our existence and meaning is a core existential concern (Frankl, 1963, Yalom, 1980).

In cultural and other intergroup interactions the “kami” worlds may develop into the inclusive “kita” world through the development of common goals and interests. We can assist the process by developing ongoing ethno-cultural encounters aimed at promising reciprocal understanding, tolerance and respect based in the context of equal status in the situation. We can construct superordinate goals that require intergroup cooperation to achieve them that are based on unifying universal values or virtues that may motivate the construction of a “we” world enables for the possibility of all to meet their essential material and psychological needs. The language being employed by the new U.S. president, Barack Obama (*Associated Press*, April 12, 2009: A7)

may reflect such “kita” language. He states, “With all that is at stake today, we cannot afford to talk past one another. We can’t afford to allow old differences to prevent us from making progress in areas of common concern. We can’t afford to let walls of mistrust stand. Instead, we have to find-and build on- our mutual interests. This “kita” language does not preclude “kami” realities but, while acknowledging these culturally and historically diverse realities this language defines overarching and inclusive common interests. It is an inclusive “we” that does not require the construction of a “them” or “other.”

Conclusions

Perhaps, in our pursuit of a nonkilling world, we should deeply consider the following questions posed by Keen (1986).

- Do we create enemies or find them?
- Do we need enemies? If we didn’t have them would we have to invent them to have somebody to blame for our problems?
- To what degree do we talk ourselves into war? Which comes first, propaganda or warfare?
- Do we need to see life as a struggle between good and evil? Do we need to be heroic?
- Can we have heroes without having villains?
- Are human beings by nature warlike or peaceable?

Rank (1975), whose ideas informed Becker (1971, 1975), posited two fundamental human motives: defensive motives (e.g., psychological defenses against anxiety such as terror management cultural worldview defenses) and growth motives (the motive to manifest one’s creative potentials). Clearly terror management defenses are not the only dynamic and human motive at work in the human condition but theory and research strongly indicate that terror management effects and defenses are powerful influences on perception and behavior.

Perhaps these motives reside and find expression in all religious-cultural belief systems. Under conditions of mortality salience (MS) worldview defenses are bolstered. It is important to note that the content of the worldview (i.e., liberal-conservative) matters because that is what will be bolstered under MS conditions with very different effects. Appropriate education and a priming of our higher values can influence the content of worldviews so that when mortality salience is activated it will be the salient content of the worldview that will motivate behavior. Perhaps we can nourish

the higher values in our diverse worldviews so that these values are activated under conditions of threat, fear and even terror.

At the lower more defensive levels of these systems, exclusivity, ethnocentric, and self-serving biases are grasped in the face of existential threat that result from conflict and bloodletting. The higher values may express the growth, tolerant and affirmative values of Mercy, Justice, Love, and Compassion. Perhaps if these values are "primed" by cultural, political, educational systems and religious leaders then, as indicted by Greenberg et al., 1992, it will be these humanity affirming values and behavioral prescriptions that will be bolstered in the face of threat rather than the often vicious human responses related to defensive motives. We can deal with the terror inherent in human existence by embracing its wonder and we can control our anxiety driven and often murderous defensive motives by embracing our varied cultures' life affirming values and their expressions.

The anxiety that is part of the human condition may also be assuaged by the construction of an alternative worldview, a multicultural society and world based on *respect* and *equality* that provides accessible standards of value that are achievable for diverse peoples in a multicultural society and world. All must be able to find a place of value and significance in such a system. Thus with our existential problem assuaged we may reach for and hopefully find our higher natures and the highest and most life affirming values resident in our diverse worldviews.

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Some Causes and Consequences of Direct and Structural Violence*

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Community Health for Asian Americans

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The word nonkilling is used here to express a choice to live without inflicting lethal harm on others. Like nonviolence, the term suggests an absence of something harmful that occurs under normative or expected circumstances. That could be misleading since nonkilling social conditions far outnumber those that permit killing or into which killing tragically intrudes. Such epidemiological evidence at the societal level becomes clearer when we examine human psychological propensities, in thought and behavior, for killing or for nonkilling. When we speak of peace, we recognize nonkilling as a necessary and measurable element of peace.

There are two peace psychologies, one expressed in studies, the other in stories. The first involves the work of psychology scholars who apply the tools of their trade to understanding why humans engage in either violence and war or in peaceful, cooperative relations (Christie et al., 2008; Blumberg, et al. 2007; Kool, 2009).

The second gives witness, through stories, to what is happening in the hearts and minds of people confronting a world awash in violence. In such stories, we hear the voices of those who have suffered violence, fought in wars, and initiated nonviolent reconciliation of conflicts. From those who have found ways to repair the wounds of violence, we learn of capacities for forgiveness, healing, reconciliation, and love. Both studies and stories can inspire insights into why people kill and go to war, how to reconcile differences without violence, how the trauma of violence and fear affects us, and how we recover and sometimes become advocates for peace. We begin with two characteristics of the human species: our ability to create psy-

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chological constructions of social reality; and our potential to kill large numbers of our own species. The two are likely related.

The Psychological Construction of Our World

Our earliest human ancestors survived against more powerful predators by collaborating with others, using tools, and storing information in large, complex brains that created intricate languages for communication and teaching successive generations what was learned through experience. We now live in a world we have largely created—a physical world we have changed more in the last 300 years than nature has done in three million and a symbolic world of mental images that define what we assume to be true. The most comprehensive symbols are the prevailing myths about who we are as humans and as members of larger groups. The myths identify our place and purpose in the world, provide a framework for our beliefs, and lead to ritual practices observed with the force of religious dedication (Langer, 1942).

Our images of larger social entities, such as nations and religions, exist only because we believe they are real. We invest them with sovereign powers and sacred attachments. Many willingly kill or die for them. Why? According to terror management theory, we abide by role expectations prescribed by our cultural world-views and social-group identifications for compelling reasons. Playing these roles enhances our self-esteem, gives meaning to our lives, and buffers us from the anxiety and terror that our uniquely human awareness we are going to die can induce in us (Pyszczynski et al., 2003).

Soldiers are assigned a special role in the world of attachment to national symbols. They are depicted as heroic defenders against alien forces who would hurt us. No matter how endangered the soldiers, leaders manipulate the national myths and tell us that we can't pull out of an armed conflict because it would dishonor the troops.

How people behave in roles within these larger symbolic realms is often confused with inherent "human nature." Violent conflicts among larger groups are commonly attributed to human aggression. That view fails to recognize the myths of nationhood and, of relevance here, the dominant Western worldview.

All cultures appear to give special value to insiders, who in some languages are identified by the same term that means "humans." For cultures with hegemonic aspirations, the myths surrounding prejudicial favoring of one's own group may determine whether outsiders are to be converted, conquered, enslaved, or annihilated. Cultural attitudes toward outsiders are therefore essential to consider for understanding aggressive societal policies.

Our stored constructions of people from other parts of the world depend largely upon whether they are brought to us by media. When Iran held 51 American hostages their well-being was a global concern. When thousands of people are abducted and killed extra-judicially by state terrorism in Guatemala, Colombia, Haiti, Indonesia, or Egypt, governments favored by the US, their plight is not part of our reality. Human compassion may well extend to individuals, even to species never personally known to us, but this cannot be tapped to stop violence when the facts are concealed.

Western Worldview

The dominant Western worldview is among the most potent, though often latent, psychological constructions of the contemporary developed world. Its propositions encompass ownership of resources, inequality, legitimacy of power, amoral reasoning, the use of force, and inevitability (Pilisuk and Zazzi, 2006). This worldview is a constellation of beliefs and values that include:

- All people are free to compete for success, typically defined as expanded wealth and increased consumption (Bredemeier and Toby, 1972);
- The world's resources exist for exploitation by those best able to take advantage of its gifts;
- Private property is favored by law over either un-owned nature or public property;
- Freedom to speak includes the unlimited right to use wealth to influence opinion and public policy;
- Problems can be fixed with technical solutions (Postman, 1992);
- Corporations shall have the protection by law afforded to citizens;
- Corporate investors are the creators of wealth and jobs;
- Efficacy is more important than ethics in the attainment and protection of wealth;
- Disparities in wealth of any magnitude are natural and acceptable;
- Poverty is due to deficiencies in the poor;
- Military force is justified to protect corporate interests (often defined as national interests);
- Limited parliamentary democracy (mandating elections while allowing wealth to be used for persuasion) is the much-preferred form of government;
- Psycho-cultural values of power, masculine domination, acquisition, and development are aspects of the natural world order (Seager, 1993);

- Those not accepting these views or the policies that flow from them pose a danger and must be either trivialized or eliminated.

The above beliefs and values define the path to progress: they should be, and inevitably will be, universal (Pilisuk and Zazzi, 2006).

These beliefs define a system with little tolerance for alternatives. Against the background of such belief systems, we can evaluate the contribution of human aggression to the occurrence of war.

War and Human Aggression

In developed societies, unless we live in high-violence urban zones, our images of how violent humans are derive less from what we witness directly and more from media depictions. Media always select and frequently distort. Media create an unrealistically violent view of our communities and the world. By reporting the tragedy of victims without serious analysis of what social and economic conditions foment violence, they increase our fearfulness of people. Despite the highlighting of violence in media, people mostly cooperate, share, care, compete peacefully, act altruistically, and forgive. Despite the frequency of conflict, most humans go through a typical day without being either a perpetrator, victim, or witness of any type of physical violence. Across continents and cultures, conflicts are mostly handled by talking over differences, ridiculing a rival, persuading, coaxing, arguing, shouting, grumbling, or walking away. One finds people agreeing to compensate for damages, compromising, reconciling differences and negotiating settlements, often using third parties. Most individuals cope with bullying, insults, competitive conflicts, and disappointments without resorting to violence or inflicting serious harm on adversaries. Even in cultural settings considered violent, most daily behavior is entirely nonviolent. Comparative studies show that major violence in societies, while common, is not universal and that human nature does not make war inevitable (Fry, 2007).

Aggression

Human capacities for anger and aggression are deeply rooted in our bodies. Cruel, selfish, and violent activities appear to be as fundamental a part of human nature as creative, caring, and cooperative actions. So we examine one aspect of what makes war possible, the capacity and the motivation of humans to be aggressive and to kill other humans.

Erich Fromm' (1973) *The Anatomy of Human Destructiveness* describes diverse forms of human aggression, some benign, some accidental, some playful and others expression of self-assertion. Many forms are seen by the aggressor to be purely defensive and/or instrumental to achieving a noble purpose. Such actions often reflect a need to conform to the prejudices of one's group. And some aggression is malevolent and intended mainly to destroy. Frustration frequently increases the arousal of aggressive tendencies. But from the time of our foraging ancestors, those bands whose symbolic worlds included means to resolve conflicts without killing off their members were those that remained. Angry temptations are universally present, but it is more than fear of consequences that keeps us from physically harming one another. It is also the internalized cultural symbols, particularly moral standards, that help us. The world in which such moral standards abound is a world that humans have created. In simple foraging societies, violence, if it does occur, is personal and not the basis for long-term feuds. Tribal hierarchies sometimes permit organized group violence which is typically short-lived. It is at the level of nation states that organized military force to inflict war becomes possible. Even within larger hierarchical societies, people are typically living peacefully even as powerful leaders prepare for war. The world in which organized violence or war can be considered a choice, is a world predicated upon the way fear-arousing symbols are mobilized.

Facing and Avoiding Danger

The psycho-physiological ability to mobilize thoughts and behavior rapidly in the face of threats is essential to survival. Avoiding recognition of real-world dangers is a manifestation of psychological *denial*. If we were continuously frightened by an immediate threat of nuclear annihilation or of floods to come with global warming, we likely would be overwhelmed with emotion and unable to act. Pushing danger from awareness has implications for the prevention of mass violence. Not fearing the enormity of such dangers, we may increase their risks by delaying action to prevent them. Fortunately, we humans have the capacity to deal with long-term issues with creative dedication and with opportunities to engage with others in building solutions. Movements for peace and justice do lie within human psychological abilities.

Us and Them: Dehumanization and Enemies

We retain long-term conceptions of others, some of whom are known personally, others known only by images of them offered to us by secondary

sources. An intriguing experiment by Bandura (Bandura, 1988; Bandura et al., 1975) shows how easy it is to set up negative images of an unknown group. In this case it was just overhearing some derogatory comments. People acted upon this information by applying greater punishments (more intense shocks, or so they believed) to the negatively represented group than to others. To engage in killing other humans, or to sanction such killing, we make use of a capacity to withdraw an empathic human connection to the target person or group. Dehumanization is a composite psychological mechanism that permits people to regard others as unworthy of being considered human. On a conscious level it can be fostered by blinding hatred and by appeals to hate a particular evil adversary. Beneath the level of awareness, dehumanization permits us to resolve self-doubts by finding a scapegoat as the target for blame. The terror management researchers argue that since cultural beliefs and identities are symbolic attempts to buffer us from the terror of death, and since our deaths are inevitable, we may have repressed existential terror that is then projected onto members of out-groups who are deemed evil (Pyszczynski et al., 2003). War depends upon a designation of out-groups as enemies. It is a special "game" in which governments grant license to kill.

Creating Soldiers

For most people at most times, personal violence against others is not part of what we do or approve (Fry, 2007). How then do we turn people into professional warriors? Lt. Col. Dave Grossman, who has studied soldiers' willingness to kill, suggests that only approximately two per cent can kill with no feelings of remorse. They are dangerous, psychopathic people who often choose work in missions with special forces involving the chance to kill. The task of turning most civilians into soldiers able to kill is more difficult. The U.S. army had to change training methods from one war to the next over the past century in order to increase the percentage of soldiers capable of killing. In WWII, Grossman reported, only 15 to 20 percent of soldiers in combat fired their weapons. By the Korean War, the percentage increased to 50 to 55 percent, and by the Vietnam War, it had risen to 90 to 95 percent (Grossman, 1995).

Recruitment to the military is presented as a patriotic endeavor to defend one's homeland, prove masculinity, and learn skills. The recruit is brought into an institution with an absolute hierarchy of command based on rank. Boot camp is harsh and aims to create a soldier who will follow orders, act courageously, and be able to kill. While training mentions the obligation of soldiers to follow the accepted rules of warfare, the military tolerance for in-

subordination or questioning an order is small. Retired marine Sergeant Martin Smith reflected upon the poor and poorly educated recruits he trained:

a recovering meth addict who was still “using,” a young male who had prostituted himself to pay his rent, an El Salvadorian immigrant serving in order to receive a green card, a single mother who could not afford her child’s healthcare needs as a civilian, and a gay teenager who entertained his platoon by singing Madonna karaoke in the barracks. They were a cross-section of working-class America hoping for a change in their lives from a world that seemed utterly hopeless (Smith, 2007).

The U.S. soldiers in recent wars were typically from poor or middle-class backgrounds, distinguishing them from the privileged government officials who had decided to engage in war. Recruiters promised them education and job training they could not otherwise afford. No part of their recruitment or training described for the recruits the likelihood of their own death, the consequences to their families, or the effects that the experience would have upon them for the remainder of their lives. In contrast, the upper classes who benefit most economically from war have been practically absent from military service (Roth-Douquet and Schaefer, 2006). The transformation of people into warriors has less to do with human motives to fight than with the absence of other opportunities for education, job training, socially respected employment, and participation in the larger society.

The professional soldier does not describe his/her work as to kill but rather to engage the adversary, to carry out a designated mission, to protect fellow soldiers, to eliminate a ruthless enemy, or to secure a territory held by dehumanized enemies. In the increasingly common circumstance of war against insurgents opposed to military or police occupation of their countries and supported by local kin and sympathizers, the façade of professionalism often wears thin. Anger rages against suicide bombers and unreliable collaborators who are able to kill one’s buddies. In such cases, angry abuse of captured insurgents and of civilians defies the professional rules of law. Recognition for self-sacrificing contributions to a larger cause has long been understood as a benefit of war. William James, perhaps the first peace psychologist, called in 1906 for a moral equivalent to war, a cause that would command the dedication and focus of young people, but for building communities rather than for destruction of enemies (James, 1995). More recently, Chris Hedges provided a compelling look at the group psychology of war (Hedges, 2003). The peace-movement community would benefit from studying his book and finding ways

to offer people the same sense of identity and belonging in the work of peace-building that they otherwise find in supporting or participating in war.

Coping with the Aftermath of War: Post-traumatic Stress Disorder

Soldiers return from war harmed physically or psychologically. Brain damage from head trauma, spinal cord injuries, amputated limbs, loss of sight or hearing, and shattered dreams are all common for thousands of wounded veterans. "Somebody's got to pay the price," said Col. Joseph Brennan, a head and neck surgeon, "And these kids are paying the price" (Robichaud, 2007). The colonel did not challenge the premises that such a war has to occur. His reference to soldiers as "kids" evokes an unconscious, collective myth organized around the ancient archetypal theme of child sacrifice, which is a dominant cultural symbol, as in the Biblical stories of Abraham's willingness to sacrifice his son, Isaac, and the crucifixion of Jesus as "God's only begotten son."

Not counted in the casualty figures are soldiers who suffer long-term psychological trauma of combat. During the Vietnam War these psychological effects became so common that the mental health category of *Post Traumatic Stress Disorder* (PTSD) was created. In coping with trauma, what is first buried from awareness continues to live on. Symptoms include persistent reliving of the traumatic event, hyper-vigilance, sleep disturbance, nightmares, a numbing of emotions, feelings of estrangement, inability to experience intimacy, withdrawal from feelings of connection to the outside world, and avoidance of frightening reminders. People with PTSD sometimes experience heightened fearfulness, amnesia, irritability, and uncontrollable outbursts of anger. Among combat veterans, high rates of alcoholism and drug abuse reflect efforts to dull the torment, while high rates of domestic violence, child abuse, and suicide reflect the difficulty of doing so. Some researchers have documented that soldiers who have killed develop perpetration-induced traumatic stress symptoms that are even more severe than the PTSD in soldiers who have been traumatized in combat but have not killed (MacNair, 2002).

Young children are also traumatized by the sights, sounds, and losses of war. But similar fears may be brought on by punitive parenting, by inconsistent or unpredictable discipline and, to a great degree, by neglect. Such parenting occurs in all social classes and among many cultures, but it is exacerbated by poverty and by forced displacement of people from their familiar origins. Like war veterans, many of these children still maintain a remarkable resilience and ability to recover their sense of caring, especially if they benefit from at least one caring, empathic relationship with, for exam-

ple, a grandparent, teacher, or other mentor (Perry, 2008). Also like traumatized veterans, some children who remain traumatized from early abuse and/or neglect, will remain prone to act out violently against others and themselves and will be easily recruited into gangs or armies in which their impulse to strike out can be rewarded. Involvement in violence, and particularly in killing, has long-term consequences (Schoore, 2003).

Finding Enemies

Designating some people as evil-doers who must be found, imprisoned, or killed is common in the lead-up to executions and to war. Certain behavior, real or fabricated, is interpreted as a reason for killing. But this interpretation reflects what psychologists have long studied as *attribution error*, the tendency to ascribe behavior to the enduring characteristics of individuals while ignoring circumstances that are frequently more important factors. Often, attempts by one country or group to defend against assault are interpreted by adversaries as aggressive (Holsti, 1982). During the cold war, the common perception among leaders and public alike was that the opposing country, the US or the USSR, could not be trusted and that none of its policies could be considered other than aggressive in intent. Bronfenbrenner described this as the mirror-image in US-Soviet relations (Bronfenbrenner, 1986).

The Nazis who committed genocidal killings of unprecedented magnitude are viewed as pathological killers. Yet, in her study of Nazi storm troopers, Hannah Arendt noted that the most remarkable thing about the Nazis was how like the rest of us they were (Arendt, 1968). Social psychologists have put forth compelling evidence to support the view that the capacity to engage in evil or harmful behavior lies within all of us and that surrounding circumstances play the major role in releasing violent behavior (Zimbardo, 2007). This is the *situationist* perspective, in contrast to the view that ascribes behavior to individual *dispositions*. In a famous series of experiments that inform the situationist position, Milgram (Milgram, 1974) showed that ordinary American citizens could be induced into administering what they believed to be harmful electric shocks to strangers under circumstances in which the experimenter explained to them that this was what they should do. Remarkably, administering even a potentially lethal shock could be induced among most subjects, males and females, across all ages and educational levels. Sixty-five percent of the subjects would do this if the experimenter said it was okay, if they saw their peers doing it, and if the victims were presented as being in some way inferior. According to Zimbardo (2007), a contractual agreement,

verbal or in writing, contributes to the willingness to justify immoral violence. One critical factor is the cover story that what is being done is for a good cause. The depictions of Panama's Manuel Noriega as a brutal drug lord or of Iraq's Saddam Hussein as a political leader stacked with concealed weapons of mass destruction are examples of cover stories that were false but nevertheless helped to legitimize violence. Another major factor is the promise that the cruel activity can be done anonymously and without individual identification. The cloak of the hangman and the uniforms of soldiers contribute to such anonymity. Societies that mutilate their victims in warfare typically provide masks to their warriors (Watson, 1973).

The people behind the cloaks, uniforms, and masks revealed themselves on Christmas Eve, 1914 on a World War I battlefield in Flanders. As the troops were settling in for the night, a young German soldier sang *Stille Nacht* (Silent Night). The British and French responded by singing other Christmas carols. Eventually, soldiers from both sides left their trenches and met in the no-man's-land between them. They shook hands, exchanged gifts, and shared pictures of their families. Informal soccer games began, and an informal service was held to bury the dead of both sides, to the displeasure of the generals. Men who have come to know one another's names and seen family pictures are less likely to want to kill. War often seems to require a nameless, faceless enemy (Wallis, 1994).

Devils and Bad Apples

We distinguish in language heroic warriors from undisciplined killers. The evidence that most of us can be drawn by circumstances into committing violence does not preclude the alternative perspective that there are vast differences among people in the willingness to inflict pain or to kill. A psychological developmental perspective helps to account for such differences. Formative early relationships predispose us toward certain behaviors, which current situations may also influence.

Because we have learned that killing is wrong, those who readily engage in such behavior often reflect a traumatic history that has blunted their capacities for empathy. Young children require the predictable assurance of a parent figure in order to fix within their neural pathways an ability to return from perceived danger to a psychologically safe zone. Such adult assurance is particularly important in adolescence lest violent impulses become overwhelming parts of the personality. Assurance and support help the developing human to believe that resources to cope with fear and anger are a part

of the self. Punitive child-rearing, particularly inconsistent punitive discipline, leaves children vulnerable to feelings of worthlessness, easily catapulted into violence by their own emotions and prone to find assurance from gangs of others like themselves. Early violent experience often affects our ability to reexamine dangerous events and respond with a more reasoned approach rather than striking out in anger (Perry, 2008).

Trauma has been associated with neuronal and brain-chemistry dysfunction affecting areas of the brain responsible for emotion-regulation and empathy. Individual trauma history and the presence of subsequent healing relationships account for the fact that not all of those who were severely abused are prone to react with impulsive acts of aggression. Others who were egregiously neglected are more likely to perpetrate calculated, predatory violence (Schore, 2003). Arendt's cogent observations on the "banality of evil" among the Nazis did not take into account the developmental perspective later presented. Alice Miller and Lloyd deMause, for example, provided historical data about widespread, abusive child-rearing practices in Germany at the turn of the 20th century that probably contributed to the childhood traumatization of many who later became Nazis (Miller, 1983; DeMause, 2006). Hitler's own background is one example affirming Stephenson's studies of 14 modern tyrants. All had suffered multiple childhood humiliations, were shame-based, and had grown up in violent, authoritarian families (Stephenson, 1998). While their rise to power may well reflect the current situations faced by their populations, the contribution of childhood trauma affecting the predisposition to violence should not be ignored. The research on impacts of early trauma is complicated because some individuals with a history of unhealed, violent trauma have a socialized, normal-appearing personality housed in one part of the brain, along with a dissociated alter personality in which feelings of terror, helplessness, rage, humiliation, and identification with the perpetrator of early traumatic experience are stored and, under certain circumstances, activated (Schiffer, 2002).

Observations of killing at the level of the individual homicide contribute to understanding a complex relation between personal and situational factors. Many are related to family or group pressure (for example, honor killings or street gang activity). Convicted killers do not all share the same personality type. Some fit the image of mean, aggressive, impulse-driven males with little sign of sensitivity or compassion for others. But another group of first homicides are committed by people who are more androgynous or feminine, gentle, shy, and with no prior record of violence (Zimbardo, 2007).

One study of blood chemistry of violent inmates, found two distinctive, abnormal blood profiles, one associated with episodic, explosive violence, fol-

lowed by remorse, and the other with frequent, assaultive behavior followed by no remorse (Bitsas, 2004). The forensic psychiatrist Gilligan who worked for 20 years with violent inmates found a primary cause of their violent acts was overwhelming shame which they unsuccessfully tried, through killing, to replace with pride. They did not perceive themselves as having alternative nonviolent ways of relieving themselves from feelings of shame, humiliation, and low self-esteem. Also, they lacked the capacity to experience the feelings that normally inhibit violence, feelings such as love and guilt in relation to others, and fear of consequences for themselves (Gilligan, 1996).

Social psychologists Milburn and Conrad and linguist George Lakoff have presented evidence that punitive political attitudes, including the favoring of war as an instrument of national policy and capital punishment, are consequences of punitive upbringings and venues through which people, particularly males, beaten, terrified, and shamed by parental authorities as children, who have not subsequently benefited from psychotherapy, displace their childhood anger onto political issues and out-groups (Milburn and Conrad, 1996; Lakoff, 1996). In light of these findings, it is significant that James Dobson, the politically influential, conservative, evangelical leader, child psychologist, best-selling author, radio and television journalist, and founder of Focus on the Family, explicitly advocates the physical punishment of children, along with not allowing them to cry in pain for more than two to five minutes before they are hit again (Blumenthal, 2009). Dobson is an example of the misappropriation of both psychology and religion in the service of an authoritarian personal and political agenda that, to the extent it is implemented, increases levels of violence in the home, society, and the wider world. Individuals who are more prone to violence find inducements to act violently in a culture that accentuates individual achievement through competition and glorifies retribution against evildoers. Such retribution begins in the homes of religious fundamentalists who teach their children that they are born sinful and who use physical punishment in child rearing more than do other groups (Grille, 2009).

The Psychology of Structural Violence

Ordinary soldiers fight in wars begun by others who rarely engage in direct combat themselves and who decide upon national interests and the costs to be tolerated in their pursuit. Moreover, Johan Galtung has drawn attention to structural violence, which requires no fighting but takes a far greater number of casualties than wars and other forms of direct violence (Galtung, 1969). Consider the statistics. The World Health Organization has reported that 1.5

million people are killed worldwide each year due to direct violence of all kinds, including war (World Health Organization, 2009). This tragic reality is compounded by structural violence, which causes from 14 to 18 million deaths per year as a result of starvation, lack of sanitary water, inadequate access to medical care, and other consequences of relative poverty (Gilligan, 1996). Elaborating on Galtung's distinction between direct and structural violence, Christie, Wagner, and Winter (2001) note that direct violence is episodic, and typically harms or kills people quickly and dramatically. Episodes of overt violence are often intentional, personal, instrumental, and sometimes politically motivated. Structural violence, by contrast, represents a chronic affront to human well-being, harming or killing people slowly through relatively permanent social arrangements that are normalized and deprive some people of basic need satisfaction. Structural violence results from how institutions are organized, privileging some people with material goods and political influence in matters that affect their well-being while depriving others.

Acting without hostile intent, some people make normal decisions in the global marketplace that necessitate the destitution of others—depriving them of their land, their resources, their jobs, and their hopes. These decisions are not accidents or mistakes but rather understandable consequences of a distorted process. The horrors of this indirect violence as well as the benefits attributed to these market decisions are products of the system, not of an omnipotent conspiracy. Most of the harm that privileged political, corporate, financial, and military elites cause has been sanctified by custom and law, which protect their privileges.

Beneath the eyes of the citizenry, a high level of planning in a high-stakes game of attaining competitive advantage takes place, at times in secret meetings, at times in normal operating procedures (Pilisuk, 2008). The perpetrators of structural violence who order wars and economic exploitation are rarely studied. They often make use of game theory to calculate strategies for winning and levels of acceptable costs. It is permissible within game theory to consider which country might be coerced into assuring a greater amount of oil for the US, but impermissible to ask whether more oil is desirable.

Legitimizing Global Violence

The mindset in which the world and its inhabitants are all instruments in an elite game to gain competitive advantage is very much a part of the belief system that legitimizes global violence. Human beings, on either side of a conflict or competition, are not considered for their feelings, needs, and rights, but are

abstractly viewed as expendable pawns. In a military occupation where torture is used to find, punish, and intimidate resistance, the game has been redefined as one in which the rules permit such abuse. Toxic chemicals, radioactive pollution that will harm lives for millions of years, unhealthy fast foods, or brain-injured war veterans all enter into cost-benefit analyses. The acceptability of risks may look different for executives of a corporation producing toxic chemical pesticides used to dust crops than to the migrant-laborer parents of a child with leukemia. The dehumanized mode of thought of game theorists requires that we consider everything, including material products, human lives, natural resources, and the sound of songbirds to have a monetary value.

To justify apparently immoral and illegal intervention activities, former Secretary of State Henry Kissinger once explained we have no principles, only interests. Even within the game theory framework, its practitioners are prone to offer technical advice on playing the wrong game. So many situations that might turn out better if the parties are allowed to engage in trust and to seek mutually rewarding solutions are recast by the strategists (with media help) into zero-sum contests, obliging someone to get hurt. Completely absent from this formulation is appreciation of human motivations for empathy with other humans, for altruistic behavior that defies the balance sheets of self-interest and greed, for the gratifications that come from sharing, cooperation, and nurturing those in need. Leaders know their followers may be mobilized to follow their game plan, for short periods, with fear-arousing threats. But they also know that most people do not like the violence of war. A government that has chosen to act with military violence since the end of World War II is continually in need of justifying its compassion. For example, in the now-famous exchange on TV in 1996 between Madeleine Albright and reporter Lesley Stahl, the latter, while speaking of US sanctions against Iraq, asked the then-US ambassador to the UN and Secretary-of-State-to-be: "We have heard that a half-million children have died. I mean, that's more children than died in Hiroshima. And—and you know, is the price worth it?" Albright replied, "I think this is a very hard choice, but the price—we think the price is worth it" (Stahl, 1996). Internationally agreed-upon rules for the game of war preclude unprovoked, preemptive military attack and the kidnapping, extradition, and torture of captives. Under existing international laws for the conduct of war, those responsible for the war in Iraq have engaged in criminal behavior. However, like Madeleine Albright, they find justifications and see themselves as serving good ends that justify any means.

We all compartmentalize the symbolic maps that guide us. People in power may not be devoid of compassion, although they may be in psycho-

logical denial of the human suffering their decisions cause and of their own consequent culpability. In the roles afforded them by governments or corporate structures, their realities are shaped only by what can be measured as winning. Perhaps paradoxically, organizational psychology finds that ignoring one's nonmeasurable and unselfish potentials is detrimental to achieving even competitive military and corporate objectives. The army knows this and uses it to build teams of soldiers.

Alternative Ways to Resolve Conflicts

Whereas conflicts are often inevitable, creative, nonviolent ways to resolve them exist. A conflict can be a sign that democratic participation in decision-making is alive and well. A premise of coming together on conflicts over divisive beliefs or ideologies is that the parties should be able to hear and acknowledge each other's actual position, which is more difficult than it would appear to be. One model requires each party to restate the other's position in a manner satisfactory to the other party. Once this is mutually achieved, the next step would be to validate points of agreement and to note symmetries. While neither adversary is converted to the other's views, both sides can see their similarities with and differences from each other. The common ground humanizes the adversary and opens a space for compromise (Rapoport, 1960).

Mediation is the most studied form of third-party intervention. For apparently intransigent conflicts, Fisher and Ury (1983) pioneered a model that encourages empathy, separates personal characteristics from underlying issues, avoids criticism, and invents creative options that provide mutually advantageous outcomes and better relationships. Here psychology helps by teaching not to use "war words" and by distinguishing expressed positions from the actual needs they serve. When alternative ways to meet the needs are found, conflicts can often be resolved. Many creative options for coming together use the principle that antagonists who need each other to attain a shared goal will lessen their hostilities through common action. Even when parties have been locked into a pattern of hostility and distrust, methods are available to reverse the escalation of hostilities. Charles Osgood's proposal of graduated reciprocation in tension reduction (Osgood, 1962; Rubin, 1994) enables one of the parties to take the courageous first small step by announcing a specific minor conciliatory initiative and following through regardless. The practice is repeated. Eventually the opposition is tempted to reciprocate, if for no other reason than to establish its credibility as the nonbelligerent party. This process has been shown to work in con-

trolled psychological experiments (Pilisuk, 1984). Historically, this process occurred in the Kennedy and Khrushchev era of the “thaw” in the cold war.

Methods of alternative conflict resolution are wonderful if they avert violence. They can also be misused in situations of unequal power. A large corporation charged with destroying a community’s habitat or chemically poisoning their groundwater may avoid full costs of restitution by mediating with some of the victims. Families impoverished by illness, loss of a wage earner and property value lack the resources to contest corporate lawyers in a drawn-out process. They are pressed during mediation to settle for a compensatory financial agreement along with a promise not to discuss the case. Similar dynamics exist in negotiations between small countries and international funding organizations. Such examples show the difference between conflict resolution and peace. When conflict resolution maintains injustice, it perpetuates structural violence (Pilisuk, 2008). To address this problem, *transformative* mediation aims to establish a relationship between parties, improve mutual understanding, and open a channel for continued dialogue (Bush et al., 1994). Overall, nonviolent conflict resolution strategies are remarkably effective. The problem is not efficacy but the unwillingness to try them.

Psychology’s application to the understanding of a nonkilling social order occurs through comprehension of the socialization of aggression in children, training of warriors, appreciation of competitive mind-sets, constructive resolution of conflicts, and expansion of awareness to include unseen victims of indirect violence. Fairly viewed, psychology teaches us that humans can restrain their hostilities and find creative ways to live together with respect. We can be caring, fair, and peaceful. But to do this, we will need to remake the constructions we have made of militaries, mega-corporations, and nations, to raise our children nonviolently, and to amplify our reverence for life.

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The Prevention of Killing: From Interpersonal to International



From Empathy to Altruism

Is there an Evolutionary Basis for Nonkilling?

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Nonkilling, much like the Gandhian concept of ahimsa, involves more than the sparing of a life that could have been taken away even in justified cases such as in war. It refers to building conditions that promote respect for life, love and coexistence, requiring careful investment of time, cognitive and emotional energy. It is only then that we can even approach the idea of a nonkilling society. Similarly, Glenn Paige (2002) speaking of a global nonkilling society, pointed out that this would not be possible in a day, but would require small but consistent steps, the first of which could be simply being able to embrace other human beings, animals and even nature.

Once we are able to embrace others including animals and nature, we would be able to go on to other steps such as forgiveness, gratitude, and compassion, instead of anger, disgust and hatred. As Martin Seligman, the father of positive psychology, pointed out (Seligman, 2003), psychologists have for a long time focused on the negativities in human behavior. It is high time that we focus on what makes people indulge in behavior based on positive representations of the self and others. From here one could proceed to the next step, namely cooperation rather than competition and finally to various forms of prosocial behavior undertaken for whatsoever reason (pure altruism or selfish reciprocity), leading us gradually to a nonkilling society. At the base of all such behaviors appears to be a simple mechanism, the ability to understand the other. In an attempt to delve deeper into the mechanisms that lie behind such prosocial behavior and to examine the adaptive value of such processes, the present chapter will draw from not only psychological studies but also the burgeoning literature from the emerging fields of evolutionary psychology as well as from neuroscience, especially cognitive neuroscience and social cognitive neuroscience.

Is it possible to comprehend such a form of nonkilling in the absence of empathy? What would be our thoughts and feelings regarding any animal that has been slaughtered for sale to feed us? Would these thoughts and feelings change if the animal happens to be a dog such as those that we keep as pets in our home? Yet, there are countries in Southeast Asia where dogs are killed for food. Our empathic reaction to those we care for and love is instant. At the same time, empathy is a complex phenomenon, with both empirical studies and day to day observations providing paradoxical results (Joy, 2009). Whereas we learn to treat our pets as family members, there are those who are more permissive and allow the killing of such animals. During his visit to Malana, a nonviolent community known as mini Greece in the Himalayas in India, Kool noticed that goats were kept as pets but were also killed for food during the winter season when vegetation became negligible. Along the same vein, a popular PBS/BBC documentary showed how a tiger cared for a sick calf but later used it to make his meal. As we become more civilized and use our enlarged brain, we start finding examples such as those of Gandhi, an apostle of nonkilling and nonviolence, and a devout Hindu. He ordered the killing of a sick calf after it sustained, unbearable pain which produced continuous cries from its mother. Gandhi's compassion superimposed upon his Hindu belief that did not permit the killing of the holy animal. The central issue in such behavior is empathy that has vital implications for (non)killing because it might act as a double edged sword—it may inhibit or instigate killing (Baumeister, 1999). We see countless cases, for example, when the owner of a pet dog or cat decides to put it to sleep after seeing the suffering of the animal. Rather than being callous, one has to be extremely empathetic in order to do this since the loss of a pet can cause great personal distress. Euthanasia can be similarly understood. While some consider it callous saying that life is sacred and no one has the right to take life, there are others who consider such mercy killing to be the highest form of empathy that can be shown by one person for another or for even animals.

The phenomenon of empathy is made even more complex when one attempts to understand its roots. On the one hand, we appear to share this trait with many other primates and analyzing the responses of animals, Bjerke and his coworkers (2003) concluded that empathy could not only have a genetic basis but also seems to be a part of our biological heritage. On the other hand, it is a well known fact that empathy is also moderated by cultural conditioning and social reinforcement. Whatever the origin of empathy, its role in social behavior cannot be overlooked and it is probably this that made Barash (2003: 198) remark that “empathy may well be crucial to success in any of the complex games of life”.

Empathy involves coexperience and ability to understand the behavior and mental processes of another living being even in the absence of any communication from the other. It is therefore a unique characteristic, the understanding of which will enrich our understanding of why we do not kill and why we should not kill at all. In the academic literature of psychology, empathy has been studied in various ways, for example:

- a) Our ability to understand the emotional states of others
- b) Our ability to take perspective of the feelings and emotions of another individual, and
- c) Our ability to share the feelings and emotions of others

If empathy is of such great importance, there should be some reason for its presence through the ages. Two of the common ways in which evolution has been studied are animal studies and neuroscientific data.

As far as the first is concerned, if the phenomenon has an evolutionary basis, we should see some evidence of it in animals, and as one goes up the phylogenetic ladder, the presence of the phenomenon should become more prominent. The second aspect helps us to isolate through the use of modern imaging techniques such as functional magnetic resonance imaging (fMRI) structures in the brain. If it can be clarified that there are neural structures and systems underlying the phenomenon or that we are hard-wired for such behavior, its evolutionary basis is further strengthened. The rest of the chapter will be concerned with studies from both of the above realms in an attempt to establish whether the underpinnings of nonkilling, that is, empathy and cooperation have an evolutionary basis, which would suggest a biological basis for adopting a nonkilling lifestyles.

We start with the role of trust in the establishment of empathy and attempt to understand the biological substrates for trust.

Oxytocin and the Role of Trust in Cooperative Behavior

Oxytocin (OT) is a mammalian hormone that acts both as a hormone and as a neurotransmitter and is best known for its crucial role in female reproduction and lactation of both humans and other mammals. The receptors for OT are most densely distributed in those cortical areas known to be activated when adults look at pictures of their lovers or when mothers look at pictures of their children (Bartels and Zeki, 2000) and, which has of late been hypothesized to be the “social brain” (Brothers, 1990; Adolphs, 2003). Virtually all vertebrates have an OT-like nonapeptide hormone that

supports reproductive functions, along with another nonapeptide hormone, vasopressin, involved in water regulation. The genes for both these hormones are usually located close to each other on the same chromosome probably resulting from a duplication event of a single gene which could be 500 million years old (Gimpi and Fahrenholz, 2001).

Besides its important role in female parturition and lactation, OT is now being renamed as the trust hormone because of its significance for the following:

- a) The establishment and enhancement of trust between individuals (Kosfield, et al., 2005), and
- b) For the inference of emotional states in others (Domes et al, 2007).

Empathy has been seen to be influenced by variations in OT receptor genes (Rodrigues et al, 2009), and directly moderated by OT (Singer, et al, 2008). So strong is the effect that even people in marketing are eyeing it and it is already available commercially as a nasal spray, a whiff of which is said to make you more vulnerable to the persuasions of others.

Behavioral Implications of Oxytocin

Recent advances in neuroimaging have provided interesting insights opened up new avenues of inquiry for psychologists. One such avenue is cognitive social neuropsychology, which uses a combination of functional magnetic neuroimaging (fMRI) and experimental paradigms to understand the neural basis of social phenomenon. One of the common experimental paradigms is the trust game, so called because it studies the effects of OT on the trusting behavior of individuals in a game-like format. In a typical trust game, one investor (Player 1) is faced with a decision to keep a sum of money (say, \$ 10) for himself or share it with another player, called the trustee (Player 2). If he decides to share it with the trustee, the original investment of \$10 is tripled to a sum of \$30. The trustee now faces the decision of whether he wants to repay the trust shown by Player 1 by sharing the tripled amount equally or to violate the trust and defect and keep the whole amount of \$30 for himself. The crux of the game, therefore is, that the investor is left with an important social dilemma, that is, to trust the trustee and share the investment with him or not to trust him. Although it is more profitable to trust the trustee, the investor does bear the risk of betrayal of this trust reposed in the trustee. In studies on the effect of OT, this trust game is played with subjects either getting nasal sprays of OT or that of a placebo, with fMRIs and amount of behavioral trust shown being measured under the OT and placebo conditions.

Studies using the above paradigm reveal that there are marked differences between those administered OT and their counterparts on placebo. Those with OT are not only more trusting of their competitors (Kosfield et al, 2005), but also continue trusting their partners even after repeated breaches of trust. While those on placebo decreased their level of trust in their competitors, those on OT showed no difference even when they were betrayed (Baumgartner et al, 2008). This is very similar to what had been clarified by Zak and his colleagues (2005) that the perception of human trustworthiness increases under OT.

For every thousand dollars robbed, there are millions given in charity and for every individual who engages in antisocial behavior there are countless others who engage in prosocial behavior. For every person who robs another, there are many others who are ready to devote both time and money for social causes. If this was not the case, we would run short of prisons and policing would become extremely difficult. Zak and his colleagues (2007) providing data on the enormous amount devoted to charity in the US alone help us to understand why we are ready to help others even at a cost to oneself. Based on a differentiation between altruism (helping another at a cost to oneself, and generosity (liberality in giving), Zak postulates that the latter is a subset of the former and cites results of neuro-imaging studies from his laboratory to show that certain specific areas of the brain are activated during charity giving. By manipulating OT while subjects participated in common economic games such as the Ultimatum and Dictator games, they concluded that OT raised generosity in the Ultimatum Game by as much as 80% over those given a placebo. Notably, OT had twice the effect on generosity than on altruism, and the effect persisted even though there was no face to face interaction (as is also the case with most cases of anonymous charity giving). Together, OT and altruism scores accounted for almost half of the interpersonal variation in generosity.

Does such prosocial behavior even with complete strangers and without any face to face interaction have any adaptational value? Perhaps, the ubiquitous attraction felt for complete strangers and the development of romantic attachment and love could be the answer.

Scientists attempting to understand the phenomenon of empathy, altruism, generosity and other forms of prosocial and cooperative behavior have generally maintained that all organisms, especially primates are more likely to empathize with those who are similar to themselves or who are perceived as kin (kin selection model) or with one from whom one is likely to receive benevolent behavior in return (theory of reciprocity). Both these

explanations however fail to help us understand why we are attracted to complete strangers, sometimes of the opposite sex to the extent that we are ready to spend our entire lives with them. Examining this paradox of human nature, Marazziti and his colleagues (2006: 28), are of the view that,

Romantic attachment is the psychological strategy which enables us to overcome neophobia and to mate with and create a strong lifelong bond with a stranger so that we may produce healthier offspring.

Drawing from fMRI studies, the researchers delineated the role of OT in close romantic attachments. They concluded that OT has an important role to play in keeping anxiety levels under control when individuals interact with strangers in close relationships. By moderating the functioning of the amygdala which is the fear hub of the human brain, it tends to optimize the level of felt anxiety in our interactions with strangers. As the relationship deepens, OT would decrease the activation of the amygdala, thereby, decreasing the amount of felt fear. This seems to agree with the findings that OT reduces amygdala activation in humans (for example, those of Kirsch et al, 2005; Domes et al., 2007) as well as in animals (Huber, et al., 2005).

In a very interesting article, entitled "Love, neuroscience reveals all", Young (2009) explains that we humans are not alone in our ability to form intense and enduring social ties. Mother-infant ties commonly seen in other animals for example, in sheep and macaque monkeys is qualitatively similar to human maternal love and it is probable that they share a common evolutionary brain mechanism. In rats and sheep too, OT is released during labor, delivery and nursing. Moreover, infusion of OT in the brain of ewes results in rapid bonding with even a foreign lamb while the absence of the OT receptor gene caused social amnesia in mice (Ferguson et al., 2000). The finding on rats is even more interesting. OT was found to increase aggression towards intruders but inhibit aggression towards pups, indicating that the role of OT in aggression is complex and depends on the level of social dominance status (Bosch, et al., 2005). In other words, OT may promote the processing of positive social stimuli and social interaction (Gupta, 2010). In view of the above, there are studies underway to see whether OT can be used in marital therapy to improve relationships or even for autism which is characterized by extreme social isolation (Jacob et al., 2007).

All the above mentioned findings have important implications for killing and nonkilling. Killing among humans generally takes place when there is a perception of the betrayal of trust. But we seem to be hardwired for nonkilling, by a

substance with a clear genetic basis and a strong evolutionary history. The very fact that the substance, namely OT, has remained with mammals even after such a long evolutionary history suggests OT has adaptive value. It is often said that, “an eye for an eye will leave the world blind”. Maybe it is the effect of OT on various brain systems that prevents us from being so revengeful and killing others and helps us to continue to trust others even after persistent breaches of trust. In fact if the effects of OT are taken together, ranging from affiliative behavior to sex, from parturition to nursing and finally maternal bonding, OT appears to be truly the “great facilitator of life” (Lee, et al., 2009).

The Neural Basis of Empathy

Empathy is not a unitary concept and is, in fact, seen to have affective, cognitive and behavioral components. It appears from research that the affective component, consisting of feelings and emotions, can be observed in response to the distress of others and has a very strong evolutionary basis. The remaining two components, cognitive and behavioral, as we will discuss later, are influenced by several cultural and situational factors, but also seem to have neural substrates.

A common way to establish the significance of a biological foundation of behavior is to demonstrate how behavior remains similar among identical twins who share the same genetic features. Davis, Luce and Kraus (1994) collected evidence from more than 800 sets of twins to demonstrate that empathy has a hereditary basis. However, the nature of this empathy was restricted to personal distress and sympathetic concern. The cognitive nature of empathy, involving perspective-taking, was found to be unrelated among the observed twins.

The biological foundations of empathy are also found to be well established very early on the ontological scale. The chorus of crying babies is well known and most of us have noticed that the crying of one baby in a pediatric ward evokes a chain reaction of crying in the others. In fact, Martin and Clark (1982) observed that young babies cried a lot more upon listening to the tape recorded crying of another baby in comparison to similarly recorded cries of their own. Children also seem to go beyond such emotional contagion. Warneken and Tomasello (2006) studied the behavior of children younger than two years and found that these children would readily help even a stranger who dropped something and showed a willingness to help when the stranger was unable to reach the object. In the case of crying, it is an instant, natural affective reaction, but whether one would act, like the young child helping the stranger, complicates the role of empathy

because it would require the translation of feelings into behavior. However, one common denominator in such studies is that the individual is positively represented in our thought and action. If this is true, let's dig deeper into the biological basis of such a useful psychological phenomenon.

De Waal (2007) has been conducting research on the evolutionary basis of behavior for a long time and he is considered to be a well known authority in this field. He believes that human beings and animals are pre-wired for empathy. De Waal also contended that the beauty of empathy is that it makes the other individual's situation one's own. As it lingers long within us, it tends to mitigate the boundary between the two individuals. Earlier, in a classic study, Masserman and coworkers (1963) had clearly demonstrated that rhesus monkeys refused to enhance their gain for food when the device for this purpose simultaneously shocked another monkey.

Mirror Neurons and their Role in Empathy

At the base of our ability to empathize with others appear to be certain neurons that show activation not only when the organism actually performs an act but also when he watches another performing the same act. Such neurons were named mirror neurons and were discovered by the neuroscientist Rizzolatti and coworkers in the early 1990s in macaque monkeys. The firing pattern of a set of neurons in the brain was first noted for specific acts, such as picking up a piece of food by the animal, etc. Subsequently, when the same act was performed by another individual but observed by the first, it was found that the same set of neurons got activated and the whole pattern in the two cases, namely during performance of the act and observation of the same act being performed by another, revealed a striking similarity. More than 10 per cent of such neurons were found located in the ventral premotor cortex (F5) of the macaque monkey. Research on birds and primates such as elephants, and apes has shown the presence of such mirror neurons as well.

Among human beings mirror neurons have been identified in several areas of the brain but significantly in the prefrontal cortex and parietal lobe and provide the organic evidence for empathy. They establish that we are hard-wired to experience the pain of others. So pervasive is their effect that Ramachandran, Director of the Center for Brain and Cognition at the University of California, San Diego, calls them "Gandhian neurons", after Gandhi who was known for his highly empathetic and compassionate behavior.

Genes are very selfish in nature and they work to maximize their own gain. In doing so, genes promote the survival of one's own children but in-

crease the cost for others by limiting or removing the vital resources of others, or through killing if necessary, to eliminate potential loss caused by deprivation in future. Helping others, such as giving away our food and material possessions, invites risk as our behavior may not be reciprocated in future. Because empathy evokes coexperience in response to the distress of others, it broadens the scope of our survival. Darwin's kin selection theory holds that we help those who possess our genes. As the biological distance between relatives sharing our gene pool increases from siblings to nephews or cousins, the range of help decreases (Burstein, Crandell and Kitayama, 1994). In short, the role of empathy is attenuated as per our own survival needs.

There are times, however, when cooperation even among nonkin members or even strangers may prove vital for survival. Thus elephants have been found to cooperate with stranger elephants when members of their kin become short in supply (Koenig, 2009). Similarly the *Science Daily* (2007) reports a very interesting finding by Emily Duval who observed that most males fight with each other over mating issues, male members of the lance tailed manakin cooperate with each other in order to attract the female, but this cooperation lasts only so long, with the dominant alpha male getting to actually mate with the female after the cooperative dance is over! Similar cooperation between nonkin members of various animal societies has been observed by Clutton-Brock (2009).

Current research on empathy shows that by and large, our ability to share feelings and emotions of others has a neural basis in the sensory motor cortex and the limbic system, particularly the amygdala. On the other hand, when we involve ourselves in understanding the intentions, beliefs and other higher level functions that characterize empathy, areas of prefrontal lobe regulate such activities. In other words, depending on how we are viewing empathy—a mere representation of a human being as a stimulus-based emotional experience versus effortful, idealized action—the control mechanisms of the brain would differ and might cause different experiences and behaviors related to empathy.

Nonkilling and the Cognitive and Behavioral Basis of Empathy

In spite of world religions that teach followers to extend the range of empathy to include others, available data suggest that religion has not always been successful (Duriez, 2004). Terrorism, war, riots, and many other forms of killing point out to the failure of coexistence that characterize a community's religious, legal or social standards. Why is this so? The answer could lie in self interest.

According to Miller (1999), the norm of society is to promote self-interest. Consider our giving away all our belongings to others and continue to keep on serving them. It is not normative. In fact, individualistic cultures, as opposed to those of the collectivist that emphasize cooperation and sharing, are designed to function in ways that promote competition and maximizing one's own self-interest. Miller contended that the formulation of institutions in individualistic cultures is such that people are encouraged to pursue their self-interest. We see this trend everywhere, from American kids who want to be the first to raise their hands to answer a question in class to people in business, health, education and even in religious pursuits. It is rooted in the competition that most western societies encourage. In contrast, the collectivist cultures teach their children to focus on the larger interest of the community and sacrifice their self-interests. For example, marriages in such societies take place with the approval and blessings of family members, rather than keeping it simply as a decision between two individuals. Education is not merely considered a matter of one's own enhancement and success, but it is designed to serve the community and the nation first.

If promoting self-interest is the norm of society and raises a powerful motivation within us for achievement and success, what implications does it have for killing or nonkilling? Kool (2008) argued that while promotion of self-interest will always be a part of human nature, it may cause substantial danger to the survival of others by lowering our moral obligations. The stronger the motive of self-interest becomes, the weaker are our personal obligations to others. Sommers and Morin (1995) conducted a study on self-interest as a factor in the demilitarization of Canada. When the Canadian government wanted to reduce military expenditure by closing down military bases, many people opposed this move by the government. Why? According to the researchers, those opposed to closing bases received income from the military. On the other hand, such individuals have no trouble maintaining and promoting their anti-war attitudes. Consider the implications of such findings on violence. To promote our self-interest, we will not only keep the military establishments that promote our proneness to war, but also deprive others of the benefit of resources that could be diverted from the military to improve the quality of life of less privileged people. If the selfish nature of genes is not supported, it might cause ambivalence in human relationships. The stakes for killing and nonkilling, in this perspective, are very critical. In spite of good parenting, the adopted children remain at a higher risk for violence than their non-adopted counterparts (Baumeister and Vohs,

2004). The cost of empathic behavior in any scenario is very high and while it is idealized in communities around the world, such behavior is not normative.

The broader impact of self-interest can be observed in the relationship between an individual's survival needs and his/her sense of social responsibility (Kool, 2008). Self-interest tends to change the moral position of an individual who might inappropriately view his or her action in a conflict situation. According to Bandura (1999), moral disengagement is likely to be facilitated with heightened self-interest. Heinous acts of killing and bombing could be dismissed as surgical strikes and laudable acts for future gains. Thus, we may begin to rationalize our inhuman acts that pull us away from humanity. In short, we will be moving directly or indirectly closer to endorsing violence as empathy decreases and apathy increases.

In many situations, the power of self-interest may serve as a self-fulfilling force and diminish the vital role of empathy. If committing violence and war is in the interest of the self, empathic behavior, even in its most natural form, would lose its precedence. The massacre of young toddlers in the infamous My Lai incident is a stark reminder of such behavior. However, learning to monitor our own social behavior when empathic behavior is a desired outcome may moderate the effects of self-interest. Consider the following example offered by Kool (2008: 88-89) in a situation involving empathy and self-interest:

Let's think of a scenario in which a two-year old baby, sitting in the cart and moving along with its mother in the grocery store, physically hits you and leaves a stain on your freshly laundered shirt. Obviously, your first reaction would be of surprise, with some unpleasantness at the minimum. Realizing that it's a young baby, and being reminiscent of how "terrible two year olds" behave at times, you might say, "Hi, enjoying your ride in the cart" or something like that, conveying the message that you find the behavior of the baby indicative of warm social interaction. If you become angry at this incident, it would probably not be in your interest, because others might think that you lack compassion and empathy for the young.

Imagine replacing this two year old toddler by a 30-year old man. The sense of empathy would no longer dictate our behavior and the expected minimum consequence would be offering a very hard look at the stranger for his silly behavior. How do we empathize with the drivers who are tailgating or cutting us very sharply? Research on road rage suggests that anger and hostility, not a sense of empathy, primes our thoughts (James and Nahl, 2000).

In our daily life, there are at least two important implications of empathy for nonkilling. First, although empathy is viewed as a very positive ability that helps

us to connect with others, in the face of self-interest, we tend to incorporate its shadow only. Under such conditions, empathy remains a nonnormative force and is simply idealized for use under limited conditions. Under war conditions, for example, empathy for the other side is proscribed. Even in conditions in which the enemy soldiers are imprisoned, our aggressiveness dictates our behavior. The events of the Abu Gharib prison during the Iraq war clearly show that when the mania of war leads to killing, rape, looting and other nasty forms of human behavior become normative, our sense of empathy vanishes.

Second, research in psychopathology shows that those individuals who fail to develop intimate relationships and poorly understand reciprocal relationships, suffer from a condition known as Asperger syndrome. A common denominator in this type of dysfunction is lack of empathy that connects the self to other people. Similarly, in a series of studies, Blair and Charney (2003) showed that anti-social individuals lose the capacity to feel remorse and lack the ability to empathize. Another condition in which people show heightened social isolation is autism, and there is neurological evidence suggesting dysfunctions of the mirror neuron system at the root of the condition (Iacoboni, 2009).

By and large, our feelings and emotions do not last very long or stay forever. Besides the short-lived effects of empathy, feelings are also prone to desensitization. Watching hungry children in Africa in a story on television is likely to evoke empathy, but the frequent exposure of this episode is likely to raise apathy within us. Research studies show that prolonged and frequent exposure to violence in mass media leads to a decrease in the sensitivity level of the viewers (Eron, Gentry and Schlegel, 1996). In a later section, we will analyze some of the reasons for such emotional numbing. Therefore, empathy must be integrated with our social obligations involving cognitive and behavioral components.

On Bridging the Gap Between Cognition and Behavior in Empathy: Implications for Nonkilling

The greatest challenge of modern psychology is to offer solutions in bridging the gap between what we *know*, how we *feel* and what we *do*. Now that we know that empathy is a natural affective process that helps us in experiencing the other, how do we translate our cognition into action under appropriate conditions?

Psychologists have long known the mechanism of dissonance that is caused by a mismatch between our thinking, feeling and action. Describing it as cognitive dissonance, Festinger (1962) pointed out that it is a way of life.

We smoke (act) because it is pleasurable, but we also believe that smoking is harmful. However, under some circumstances, beliefs can be changed by changing one's actions. Foot-in-the door techniques (accepting a small request leading to a changed belief for a larger donation), public pledging, Stockholm Syndrome (compliance in behavior leading to altered pattern of thinking), and other techniques have shown that not only do our beliefs influence our behavior, but conversely, behavior may also trigger changes in our belief system. For example, the legendary Indian king, Ashoka, realized after unprecedented killing to satiate his self-interest of conquering the world, that war was an evil and nonkilling was the highest form of life. He embraced Buddhism and devoted the rest of his life in building peaceful communities. However, such evolution of self-realization is very expensive and destructive. Therefore, it is important to focus on lessons that we can draw from our knowledge of psychology of empathy that are relevant to nonkilling.

In a very challenging analysis, Mark Davis (2004) contended that there are at least five ways in which empathy may be viewed as a common denominator for both cognition and behavior:

1. Empathy is linked to emotional synchrony and shows itself in various expressions such as mimicry. In its most basic form, it has a behavioral outcome. Earlier, we had mentioned regarding the babies who cry together.
2. Empathy leads to generation of emotions that lead to compassion and positive states.
3. Empathy may elevate a motivational state of an individual. For example, it carves forgiving, a condition in which an individual minimizes the impact of negative emotions and displays her superior moral levels
4. With empathy, the perception of the other becomes less threatening.
5. In conjunction with sympathy, empathy may lead to reduction in aggression and contribute to nonkilling. Because empathy provides a perspective of the problem of the victim, empathy is likely to contribute to avoidance of extreme form of harm, that is, killing (See Box 1).

In 1984, Kool and Sen published their Nonviolence Test (NVT) comprising of 36 forced choice items (Kool and Sen, 1984). An example of an item from their test is cited below:

- The more I think of how bad someone's actions or thoughts are:
- a) the more I try to understand how to get along with that person
 - b) the more I get irritated and want to tell that person off

A factor analysis of the scores obtained on this test showed that anti-punitiveness, self-control and forgiving emerged as cardinal components of nonviolence (Kool and Keyes, 1990). The implications of this research finding show a relationship between empathy and nonviolence and in fact, a positive relationship was discovered between the two tendencies. As evidence of a relationship between empathy and nonviolence, a subset of Mayton and coworkers' empathy section of the Teenage Nonviolence Test (2002) and Kool and Sen's Nonviolence Test showed a significant correlation (.42, $p < 0.01$ level).

Box 1. Lesson number one: empathize with your enemy

Quoting Ralph White, Blight and Lang (2004) wrote, "Empathy is the great corrective for all forms of war-promoting misperception...It means simply understanding the thoughts and feelings of others...jumping into another person's skin, imagining how you might feel about what you saw."

Further quoting Robert McNamara, former Secretary of State, they wrote, "That's what I call empathy. We must try to put ourselves inside their skin and look us through their eyes, just to understand the thoughts that lie behind their decision and their actions. (pp.160-161)

Kool (2008) concluded the outcome of the role of empathy as under:

SELF ↔ OTHER ⇒ EMPATHY + SYMPATHY → NONKILLING

Adopted from Kool (2008)

Does it mean that killers do not empathize? In fact, those who are most hurtful in intimate relationships tend to empathize, but in negative ways. We are familiar with the abuse of spouses in families, students in schools, and similar ill treatments at other places. According to Baumeister (1999), this misuse of empathy becomes an instrument of cruelty. He cited an example of the father who killed the favorite pet of his son to punish him. Therefore, in viewing the relationship between empathy and nonkilling, sympathy of some type must accompany empathy.

Decisions for Economic Choices in Cooperative Behavior

While cooperation would be central to any analysis of nonkilling, the psychological study of cooperation is fraught with paradoxes. One reason for this is that cooperative behavior is always vulnerable to cheaters and de-

factors as is seen in the results of studies based on the classical paradigms of the Ultimatum game, the Dictator game and even the Prisoners Dilemma game so called because of this very dilemma of dealing with cheaters. But we all know how to deal with cheaters and at times banding up with cheaters also promotes survival even in organisms as simple as yeast (Gore et al, 2009), monkeys and citizen bees (Austad, 1999). Ways of overcoming cheaters have also been devised even at the gene level (for a detailed analysis see Richard Dawkin on the selfish gene and the green-beard effect).

Attempting to understand this phenomenon, Lee Dugatkin (1997) drew parallels between human and animal cooperation. He classified four conditions under which animals as well as humans would find it more profitable to cooperate than to compete. These are:

1. Cooperation for mutual benefit; when the animal feels that the enemy is too big or strong for him to fight it alone, it decides to cooperate with another animal.
2. Nepotism: helping relatives to pass on genes when personal reproduction would not be sufficient.
3. Selfish samaritanism: helping a stranger if he is likely to help you at some later stage
4. Group selection: contributing ones best for the welfare of the group

For each of these, Dugatkin offers observations from animals, from ticks to impalas, and suggests that natural selection gives us unique insights into the conditions under which humans and animals are likely to show altruism.

Prospect Theory and Empathy

Human choices are remarkably susceptible to the manner in which the options are presented and represent a striking violation of standard economic accounts of human rationality. Delving into this intriguing phenomenon of human decision making, Kahneman and Tversky proposed a theory named Prospect Theory (Kahneman and Tversky, 1979). One of the prime findings of their theory was that individuals are much more loss averse than gain seeking and will often make erroneous choices based on what they called the framing effect, or “the passive acceptance of the formulation given”. Through some very ingeniously designed experiments, they were able to demonstrate this effect over a wide range of populations including noted professors of Stanford University. It was also observed that by simply changing the contexts

or the frames in which the choices were presented, keeping the initial choices invariant, went a long way in changing human decision making.

Evidence is collecting that if we want people to respond in a more empathetic manner, we could frame the choices in an appropriate manner. Knowing that people are more loss averse than gain seeking, frames which endorse the former would be far more effective than those simply focused on the possibility of gain. The list could be long, ranging from changing attitudes towards affirmative action (as shown by Gamliel, 2007), promoting prosocial behavior in terms of recycling (for example, Loroz et al., 2007), or even in altering behavior in the classical Dictator Games used for studying the degree of trust shown by people. It is surprising to note that the addition of a simple sentence at the end, "note that he relies on you" made people respond in a more generous manner (Branaz-Garza, 2007).

Findings such as the above have far reaching consequences for training people to be more empathetic. For example, soldiers at war often face civilian enemies and telling them that "note, he relies on you" would probably make the soldier react in a more empathetic manner than simply telling them to be more humanitarian in their approach. The same would hold for people dealing with prisoners of war. Even the very ways in which media frame events of communal disharmony influence to a great extent the reaction of the readers; hence, the media should also be careful about ways in which they frame news (Abdel Rahim, 2007; Edy and Mierick, 2007).

But, beware, we can go too far in our attempts to frame messages. When trust games were played among Masai men in Kenya, with an added sentence, "this is an osotua game", there was a clear correction bias taking place (Cronk, 2007). Osotua is the Masai term for a ritual of giving as a sign of trust, and when games were played with the above sentence added, the subjects started to feel that they should not be fooled and therefore played differently and gave much less than when the game was not framed in this manner.

This top down modulation of empathy through cognitive processes also appears to explain the type of psychological numbing that one often sees. After every genocide, we go all out to vow that this will be the last one but time and again, mass killings are repeated and make one wonder as to the reason for them. This was probably what made Romeo Dallaire, a commander of the UN peace keeping mission in Rwanda in 1994 encourage scholars,

to study this human tragedy and to contribute to our growing understanding of the genocide. If we do not understand what happened, how will we ever ensure it does not happen again? Dallaire (2005: 548).

Today, there is considerable evidence that our affective responses and the resulting value we place on saving human lives may follow the same sort of “psychophysical function” that characterizes our diminished sensitivity to a wide range of perceptual and cognitive entities—brightness, loudness, heaviness, and money. Thus we readily perceive small changes when the magnitude of the stimulus is low, but as the magnitude of the stimulus increases, considerable larger changes have to be made in order for them to be perceived by us. This appears to be true for genocides too. The death of a single person may arouse deep feelings of compassion but the death of thousands may leave us seemingly untouched. Thus empathy and compassion too seem to follow the psychophysical laws of Weber and Fechner. Kahneman and Tversky (1979) incorporated this psychophysical principle of decreasing sensitivity into prospect theory through what they termed the value function, which relates subjective value to actual gains or losses. When applied to human lives, the value function implies that the subjective value of saving a specific number of lives is greater for a smaller tragedy than for a larger one.

Fetherstonhaugh, Slovic, Johnson, and Friedrich (1997) documented this potential for diminished sensitivity to the value of life, that is, “psychophysical numbing”—by evaluating people’s willingness to fund various life-saving medical treatments. In a study involving a hypothetical grant funding agency, respondents were asked to indicate the number of lives a medical research institute would have to save to merit receipt of a \$10 million grant. Nearly two-thirds of the respondents raised their minimum benefit requirements to warrant funding when there was a larger at-risk population, with a median value of 9,000 lives needing to be saved when 15,000 were at risk, compared to a median of 100,000 lives needing to be saved out of 290,000 at risk. By implication, respondents saw saving 9,000 lives in the “smaller” population as more valuable than saving ten times as many lives in the largest. Several other studies in the domain of life-saving interventions have documented similar psychophysical numbing or proportional reasoning effects (Bartels and Burnett, 2006; Fetherstonhaugh et al., 1997; Ubel et al., 2001). For example, Fetherstonhaugh et al. (1997) also found that people were less willing to send aid that would save 1500 lives in Rwandan refugee camps as the size of the camps’ at-risk population increased.

A seemingly unanswered question is whether there is any neural basis to our differential perception of losses and gains. Kahneman and Frederick (2007) have analysed the neural basis of framing and their results comport with those of other researchers who have found a differential coding of losses and gains in the human striatum (Seymour, et al., 2007; De Martino, et al., 2006).

Altruistic Cooperation, Altruistic Punishment and its Neural Basis

The paradox of the human species is that unlike other species, we frequently cooperate with complete strangers defying all rules of kin selection and even reciprocal altruism. Maybe it is because we are gregarious by nature and social groups are essential for our very survival. It is probably in this context that the tendency to inflict punishment on others, even when it is costly to the self, evolved. Such costly punishment which works against self interest has been termed altruistic punishment and has been found to be very important for the evolution and continuation of cooperation between individuals. While there have been numerous observations of costly punishment, its scientific analysis is of more recent origin. In an attempt to explain the phenomenon, Bowles and Gintis (2004) point out the fact that often when a group is most in need of prosocial behavior, reciprocal cooperation may collapse. Defectors start being found in abundance and the survival of the group could be at stake. To stop such defectors, they need to be punished even at great personal cost. So one may punish a near and dear one if that person is found violating a norm, and the guilt of a mother giving 'time out' to children is only one of the many examples that can be cited. Gintis and his colleagues (*ibid*) further state that costly punishment could be the outcome of another commonly found trait, that of strong reciprocity, which is a predisposition to cooperate with others and also to punish any noncooperators. This has considerable adaptive value because if each of us turned defector and there were no reciprocators, the entire system would collapse. Therefore, if cooperation is to flourish, altruistic punishment becomes necessary, with the former tending to break down if the latter is excluded from our repertoire of behavior (Fehr and Gächter, 2002). In other words, altruistic punishment acts as a social glue through which free riders are not allowed to flourish (Fehr and Gächter, 2002) and should therefore be seen as a social investment (Jaffe, 2004) through which the punishment for social norm violation becomes decentralized making it an efficient vehicle for social norm enforcement.

The strength of this mechanism is also seen by its pervasiveness. Heinrich and his colleagues (2006) collected data across 15 diverse populations and found that while all populations demonstrated the willingness to indulge in such behavior, its magnitude varied across populations. More important is the finding that there was a positive correlation between the propensity to deliver altruistic punishment and altruistic behavior itself.

In a very interesting study on the neurobiology of punishment, Seymour and his colleagues (2007) attempted to understand the proximate basis for both types of punishment. While neural substrates were found for the punishment of negative behavior and noncooperation, altruistic punishment should also be seen as being due to the cultural norm upholding fairness and equity. At the same time, de Quervain and his team (2004) using Positron Emission Tomography found that altruistic punishment produced activation in the reward centers of the brain, indicating that people do derive satisfaction in inflicting such punishment.

What are the implications for such behavior for empathy and its role in nonkilling? Would one say that a mother punishing her child even at great emotional torture is unable to empathize? Should she allow the child to go on indulging in such norm violations? How should members of political parties react when members of their own party do something unacceptable to the society? Even if she is one of the best in the party, it makes more sense to punish this one person because nonpunishment would promote such behavior. Thus, as mentioned earlier, empathy can act as a double edged sword, instigating killing in some instances, protecting the person in other instances. Yet, what appears clear is that without such punishment taking place it would be difficult for the group to survive. In other words, while one may seemingly appear noncompassionate as far as the defector is concerned, one is certainly showing empathetic understanding of the group to which one belongs. Thus, altruistic punishment is probably one of those phenomena that have developed due to the conjoint function of biological, evolutionary, psychological, sociological and cultural factors for the survival of the species.

Implications for Enhancing Empathy: Training for Empathy

If empathy is so critical in nonkilling, are there ways through which it can be enhanced? Simply speaking, we first need to focus on an individual and second, we must raise the level of community in generating empathy.

The question of raising empathy levels among individuals can be addressed at two levels:

1. The individual needs help in correctly understanding the intent of others, and
2. We need to improve interpersonal relationships by exploring reliable methods of drawing inferences about others.

In either scenario, the focus will be on enhancing our empathetic understanding. For a therapist, the goal of a clinical program will be to sharpen the level of empathetic acuity which involves essentially our enhanced ability to develop vicarious experiencing. Unfortunately, programs for enhancing empathy have shown mixed results (Manger, Eikeland and Asbjornsen, 2001). Even in the medical profession that requires a broad and comprehensive understanding of empathy, the effects of such training had no long-term benefit (Poole and Sanson-Fisher, 1980). On the other hand, such training programs do create some short-term effects. Using Davis' Interpersonal Reactivity Index, a self-report measure of empathy, Feighny, Monaco and Arnold (1995) found that the participants in a program showed improvements in their empathy scores.

Ideas for empathy training can also be drawn from Prospect Theory. According to Kahneman, human decision making can be based on either one or the combination of two systems of thinking, namely, System 1 and System 2. While the first is highly automatic and takes hardly any attentional resources, the latter requires conscious analysis and as such uses scarce attentional resources. Since human cognition always attempts to economize, individuals develop all types of rules of the thumb, that is, heuristic principles to aid System 1 thinking. The latter is also characterized by ease of access and is therefore often highly intuitive and based on immediate emotions. In the context of nonkilling, road rage would be a fitting example. The most economic response and the most easily accessible one is to aggress against the faulty driver. Not to retaliate in a fit of anger requires one to say "halt;" to oneself, followed by the question "am I doing the right thing? Is this right?" All this requires attentional resources causing System 2 to come into play but don't most of us do it? Are there not cases of forgiveness and avoidance more common than examples of road rage? This shows that it is possible to engage System 2 into our behavioral propensities.

One could also look at carnism. In cultures where meat eating is the norm, the consumption of meat and killing of animals does not require any thinking; it comes automatically. On the other hand, a vegetarian may question the rationale for killing animals for food when other non animal food is available in plenty.

As far as empathy training is concerned, Kahneman notes that it is possible through skill acquisition and subsequent practice to hasten the speed of System 2 thinking to the level of making it appear intuitive, though not actually so. Thus for people in whom high empathy is the demand, for example, people in the medical profession or even soldiers in active war, such skill acquisition could be promoted.

Although a wide variety of empathy training programs are available, over-emphasis on empathy is considered paradoxical. In our society, we learn to play by the rules. If you help me and I reciprocate, it is fair. Unfortunately, if you keep on helping me and I do not reciprocate, the powerful norm of reciprocity that dictates help based on mutuality is perceived to be violated and altruistic punishment as described above could be the result. Therefore, in any individual training program empathy must be viewed, understood and recognized in a social context. Having said this, we will now describe one of the most powerful community programs based on the concept of empathy.

Gandhi on Nonkilling and Empathy

According to Nagler (1990), Gandhi attempted to establish a science of nonviolence by conducting experiments on truth and *satyagrah*. He recognized the Darwinian principle of survival and adaptation and contended that the process of evolution is experimental. The elimination of killing is unrealistic as long as we tend to promote our own self-interest. Thus, violence is unavoidable (Iyer, 1973). For him, violence and nonviolence are choices in our life and any decision to prefer one over the other would depend on how we handle the power within us that connects with other people, that is, empathy. When Gandhi recruited nonviolent soldiers in his campaign for the independence of India through peaceful methods, for example, sit-in, fasting, etc, he told each member of his team to continue to empathize with the tyrants. He emphasized that in order to make India free, hate the British rule in India but not the people of British origin and especially those serving the British government as soldiers, civil servants and businessmen within India. In fact, he requested that each British resident in India be loved and cared much like any body else in the community, but ironically, they were the agents of exploitation and atrocities that were inflicted on the people of India.

Gandhi prepared a script of a nonviolent action for those who participated in his nonviolent movement. Called *Satyagrah*, this technique mandated relentless loving and understanding of the enemy even while one was being physically assaulted; restrain from showing any anger; be fearless; keep chanting slogans; and remain on fast during imprisonment. A volunteer who passed this training course became a *satyagrahi*, a bona fide freedom fighter. When a group of his followers lost their self-control and killed a few British officers and their family members, he empathized with the victims and went on fast unto death to strengthen the moral position of his team. This fast was abandoned by him only after a sizeable section of the same commu-

nity members assured him that the British brothers and sisters would never be ill-treated again. The transitory nature of empathy was well understood by him and he had to design his satyagrah movement in such a way that there was no room for the force of empathy to blink at any time. He continued to teach the people of India to hate the British rule that was evil, but not the people of Britain. In short, behind the force of satyagrah of Gandhi was the most powerful psychological concept of empathy that binds us with the other individual. Using empathy as a tool, he removed the 'us-them' boundary that is the root cause of conflict and mayhem in this world (Hastings, 2002). For him, without empathy there was no other way to generate love for one's enemy. It is simply a tool that makes us morally inclusive.

In the Gandhian action plan, empathy promoted nonkilling in the following three ways:

- a) With empathy for the enemy there will no act of killing (*krita*)
- b) The power of empathy will dissuade killing (*karita*)
- c) The presence of empathy will not allow passively watching the killing (*anumodita*)

For Gandhi, nonviolence and love were reciprocal terms. He considered man an animal who is violent but in his spirit, he is nonviolent (Iyer, 1973). He endorsed philosopher Comte's idea that no society could exist without love. The manifestation of violence or nonviolence would depend on the means we select. According to Gandhi, we have control over the means but not the ends. "The progress of our goals will be in the exact proportion of means we use." (ibid, p. 362). When we focus on the end result in a conflict without consideration of means, violence is a likely solution. However, in a similar situation if we focus on the appropriateness of means that emerge out of our connectedness with others and coexistence, there would be minimum violence.

While genes make us selfish, empathy, by drawing others in our self, moves us away from selfishness. Answering to the question of how selfish are we, Gandhi remarked that nonviolence is just selfishness without malevolence. It is possible only if we make an attempt to genuinely understand the other human being. He disagreed with Karl Marx who contended that violence was the midwife of human history and helped us to view the true face of the problems of the world. In contrast, Gandhi believed that violence in human history tested the limits of nonviolence and in fact extolled it to expose the hypocrisy of our society. Nonviolence is an inward journey made possible by relating to others and provides an opportunity for the expansion of our self. Neither the under-

standing of our own history nor our journey to nonkilling are possible without examining the capacity that links our own self with that of the other.

Remember we mentioned about the issues in bridging the gap between attitudes and behavior. Gandhi believed that moral feelings and knowledge have no value unless they are discharged into behavior. For Gandhi, moral competence is useless if it does not show itself in one's moral conduct. It is like *anumodita* (watching passively the killing of another human being and doing nothing). Empathy must be demonstrated and its meaning must be evident through the service that we render. In *satyagrah*, the purpose is not to physically restrain the oppressor nonviolently but to win him through moral positioning. Ruth Linn (2001), of Haifa University, is very critical of the work of psychologists like Lawrence Kohlberg who have been concerned with the development of moral beliefs of individuals but rarely focused on their moral conduct that drives an individual to intervene during injustice done to others.

While modern psychologists like Baumeister (1999) are apprehensive regarding the evil effects of empathy, Gandhi, was more concerned about the euphoria of nonkilling. He taught detachment from the means that are attached to achievement of ends. To put it simply, he taught his nonviolent soldiers detachment from the consequences of the attainment of goals, a paradoxical situation that is hard to live and continue to work through. Borrowing from the concept, *Anasakti*, of *Gita*, a holy book of Hindus, Gandhi offered an antithesis to the western thinking of enjoying the consequences of one's attainments. He argued that success or failure in achieving a goal is less important than our fair use of means. For example, if I lose a game, it might hurt me but if I believe that I did my best, used fair means in the game, maintained my positive interaction and have no regrets, the attainment of the goal of winning or losing becomes less significant. Attachment with the ends tends to sway us from using fair means.

Although Kool (2008) has pointed out the limits of using exotic concepts like *anasakti* and their practical implications across cultures, empirical studies suggest that empathy has potential to disturb the emotional equipoise for nonkilling. Two Indian psychologists, Pandey and Naidu (1992) argued that *anasakti* teaches us to avoid extremes of life—sorrow or joy—and to remain dispassionate in either conditions. Essentially, *anasakti* is a motivational concept as it involves analysis of satisfaction or dissatisfaction in the course of behavior. According to Kool (2008: 129), "If the use of means becomes relentless for its own sake, as it often happens in war when soldiers begin senselessly killing for the sake of killing, violence exceeds the limits of human imagination. Therefore it is important that the focus on means should never be un-

dermined to contain violence. Anasakti, as a motivational force, regulates the unwanted and overenthusiastic use of means leading to violence.” Since empathy plays an important role in monitoring nonkilling, its uncontrolled exhibition may become counterproductive. Hence, Gandhi did not hesitate to order the killing of the calf as he did not detach himself from killing per se for its own sake, but took a moralistic position that justified killing, albeit with purity of his intentions, and something that he opposed throughout his life. Overindulgence or euphoria in any form is against the concept of anasakti.

Summary

To sum up, we contended in this chapter that empathy with its forerunner trust and consequential cooperation provides insight to our understanding of nonkilling behavior. While scientists have long been concerned with the issues that contributed to killing, there is biological evidence to support the position that we are oriented toward nonkilling. In this regard, the role of brain centers and neurochemicals, for example, oxytocin, have been cited with particular reference to our ability to employ empathy. Subsequently we examined the neural basis of empathy and also focused on the role of self-interest as a motivational force in (non)killing and how empathy attenuates its impact. The next section focused on how empathy becomes restricted due to economic choices and the contributions of prospect theory in that context. One of the paradoxes of empathy is altruistic punishment and we examined literature showing how even such costly punishment and seemingly nonempathetic behavior promotes group selection and is therefore serving adaptive purposes. An important goal for the psychology of nonkilling is the promotion of empathetic behavior. Drawing from all of the above, implications for training programs of empathy were discussed. The chapter ended with a detailed account of how Gandhi was able to translate his view of empathy and nonkilling to promote a nonkilling society.

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Nonkilling Empathy as a Natural Human Tendency

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Introduction

An empathetic brain could be defined as one that easily understands the feelings, emotions and thoughts of other persons. This ability emerged in the process of hominization as a crucial element for survival and is enhanced through education, learning and experience. But empathy also appears to be linked to biological factors such as brain structures, hormonal stimulation, and neurotransmitters, which is linked to early ontogeny. The combination of these factors—biological and environmental—can help us understand not only empathic differences between individuals but mayor trends in human history.

A number of experiments involving emotions, disgust, pain or forgiveness have identified the brain circuits related to empathy through neuroimaging techniques—mainly functional MRI (magnetic resonance imaging). These studies have shown how the prefrontal and temporal cortex, the amygdala and other regions of the limbic system play a fundamental role in the wide range of situations in which empathy appears (Moya-Albiol et al., 2010). The limbic system is involved in emotions but also in the ability to put oneself in another person's position. After receiving the primary impulse it then transfers impulses to the temporal and prefrontal cortex. The latter not only controls impulses but is also the brain structure which allows for the control or expression of emotions. Hence, in the case of empathy, the feelings of others are analyzed and integrated in these areas.

Brain circuits involved with empathy also appear to be associated with violent behavior, meaning that the same circuits could be, at least partially, responsible for both behaviors (Moya-Albiol et al., 2010). We also know that encouraging empathy has an inhibiting effect over violence, which may not only be based on social grounds but also in biological terms. The stimulation of these neural circuits in one direction could reduce their activity in the other. Thus, in

spite of the lethal capacity of the human species—manifested through history in acts of genocide, wars and other atrocities—we also hold the most developed disposition for empathy, which has probably guaranteed our survival. In biological terms, nonkilling empathy and lethal aggressiveness, two seemingly opposite forces, could be seen as reverse sides of the same coin, the *yin* and *yang* of the human condition, to frame it in dualistic terms. Human ontogeny is characterized by the plasticity of postnatal and even adult brain and stimulation in one or another direction can lead to very different results (Giorgi, 2010).

The large amount of anthropological evidence that supports the argument of simple hunter-gatherer societies as mainly nonviolent societies (See Sponsel, 2010 and Sussman and Hart, 2010 for extensive references.), suggests that we are “wired” for empathic, cooperative and essentially nonviolent and nonkilling behavior. As many authors have argued (See Prescott, 2002, for example.), the main driver for violent behavior is the lack of proper human social (empathic) models which lead to defective brain structures due to postnatal abnormal social exposure, in which congenital predispositions may certainly play a facilitating role.

If we agree, as the World Health Organization pointed out (Krug et al., 2002), that violence is a preventable disease or, in other words, a pathology instead of a normal human behavioral trait, it is necessary to understand how driving factors—namely lack of proper postnatal human models—affect and damage our empathically predisposed brain circuits. We know that the same neural circuits that control empathy are those activated during violent behavior. We also know that empathetic and violent behaviors cannot be expressed at the same time and that when someone has developed the ability of putting him or herself in another person’s position it is more difficult for him or her to behave violently. This is at least the case with most individuals. Psychopathic behavior or autistic traits present notable differences. Even though these two traits are completely different, both share in common the absence of empathy and adequate cerebral circuits for expressing it.

If the hypothesis presented in this chapter is correct, the implications could be extremely important in the advancement toward nonkilling societies, with practical applications in a number of fields, from parenting and primary education to criminal rehabilitation. Within the framework of violence prevention, it is clear that if a developed “empathic brain”—nurtured through appropriate social stimuli—is less likely to sustain aggressive behaviors and acts of violence, the key for reducing killing and violence in general is the achievement of empathic individuals within societies that nurture nonkilling empathy. The need to advance our understanding of cerebral structures and

neural substances related to empathy is critical, both for early prevention and intervention in the socialization, cultural conditioning and structural reinforcement zones, as identified by Paige (2009: 76), and for psychopharmacological and other therapies in what Paige labeled “neuro-biochemical capability zone”, comprising “physical, neurological, and brain function factors and processes that contribute to human capacity for predatory or survival-seeking lethality and for nonkilling behavior” (id.). If we bear in mind that for most of our existence, human survival-seeking lethality corresponded with alimentary aggression against other species (hunting), or defense from predators, mainly other species (see Hart and Sussman, 2005), it is important to understand how brain structures reacted to cultural changes since the Late Neolithic, leading to increasing lethality against fellow human beings, and what kind of damages continue to sustain the pathology of violence.

Defining Nonkilling Empathy

Empathy refers to the tendency to explicitly experience the emotional states of others and is crucial in many forms of adaptive social interaction. It deals with a complex form of psychological deduction in which observation, memory, knowledge and reasoning are combined enabling for the recognition, understanding and sharing of the thoughts and feelings of others, thus becoming a prerequisite for compassion.

For most people this comes as something “natural”, as a predisposition exists, while others need to go through a complex and challenging process to experience and develop this capacity. In any case, it is an ability that can be learned, improved and internalized. Its growth is linked to a wide range of factors including education and life experiences, but the disposition and operation of brain structures, neurotransmitters and hormones is also relevant. Women, for example, tend to be more empathetic than men cross-culturally, which is at least partially due to prenatal exposure to sexual hormones.

Empathy has a cognitive component and an emotional component, which are activated through different neurocircuits. While the first is related to the ability of abstraction and understanding of other sentient beings’ mental processes, the second is related to the perception of the other person’s emotional state and subsequent reactions (Spinella, 2005). In other words, the cognitive component entails putting oneself in another person’s position and the reaction to that person’s emotional state constitutes the emotional component. Both components have been measured through psychometric scales, namely through the Interpersonal Reactivity Index (IRI)

(Davis, 1983), but other techniques such as neuroimaging, hormone and psychophysiological analysis have also proven useful. The IRI evaluates empathy from a multidimensional perspective and includes both cognitive (perspective taking and fantasy) and emotional (empathetic preoccupation and personal discomfort) components. Recent studies have actually differentiated two types of emotional empathy, one being more closely associated with the emotional expression of anger and rage, and the other with expressions of fear and sadness (Blair, 2007).

On the Biology of Empathy

Even though evaluating empathy is not easy, controlled experiments in which neuroimaging techniques are applied have provided a wealth of information on the neural circuits involved in the expression and regulation of empathy. Neural correlates for empathy started with the discovery of mirror neurons which are activated through the observation of the emotional state of another individual. The discovery of mirror neurons in the premotor and parietal cortex of non-human primates that are activated during the execution of a certain action and during the observation of the same action carried out by a co-specific (nonhuman primates or humans) suggests that their nervous system is capable of representing the actions observed in others in their own motor system (Gallese et al., 1996). These neurons are instrumental in learning and allow humans to understand and infer the intentions of others (Fogassi et al., 2005). This cognitive component of empathy is a key to the development of the theory of mind and helps us understand the complexity of intersubjectivity and social behavior.¹

¹ Evidence of neuronal representations shared between oneself and others was first described in the field of action (Rizzolatti et al., 2001) and emotion (Carr et al., 2003; Wicker et al., 2003). More recently, research demonstrated the role of shared representations in the dominions of pain processing (Avenanti et al., 2006; Morrison et al., 2007) and touch (Keysers et al., 2004). The mirror neurons in the premotor areas, which were thought to be only involved in the recognition of a determined action, are also implicated in the comprehension of the behavior of others (Iacobini et al., 1999; Tettamanti et al., 2005). Understanding an intention means deducing an on-coming aim, a process which the motor system automatically carries out (Iacobini et al., 2005). Furthermore, the mirror neuron system is not limited to a specific zone of the premotor cortex, but includes other motor circuits (Buccino et al., 2001). Individuals with greater empathy have been shown to have a greater activation of the motor system of

Stimuli and Disgust

One of the strategies frequently used to induce empathic behavior and to analyze the related neuronal structures is the presentation of images with an emotional content or situations in which one has to adopt the perspective of the other person. In the majority of studies an increase in activity in the occipital and limbic cortices has been observed (Paradiso et al., 1999; Iidaka et al., 2001; Geday et al., 2003), although the results do not always concur and include the activation of a multitude of neuronal substrates. When analyzing the interaction between emotional and cognitive components of empathy it has been hypothesized that the frontopolar and somatosensory cortex in conjunction with the inferior parietal lobe are essential in the processing involved in the adoption of one's own perspective or that of others (Ruby and Decety, 2004; Nummenmaa et al., 2008). Furthermore, emotional empathy would facilitate the somatic, sensorial and motor representation of the mental states of others, and would lead to a more vigorous identification of the physical and mental states observed than that which appears in cognitive empathy. Another aspect evaluated in some studies on the presentation of emotional stimuli is the role of gender differences in the regulation, experience and expression of empathy. Women frequently show higher scores in questionnaires on empathy, social sensibility and recognition of emotions than men. It seems that women utilize, to a greater extent than men, cerebral areas that contain mirror neurons in face-to-face empathetic interactions, which could explain the underlying neurobiological mechanisms that facilitate "emotional contagion" (Schulte-Ruther et al., 2008). These gender differences in the neuronal substrates that regulate empathy would be fundamentally linked to the right hemisphere (Rueckert and Naybar, 2008).

Another strategy relies on the presentation of emotional stimuli related to the expression of disgust, a basic negative emotion essential in human behavior. Both the observation of facial expressions of disgust or pain and the experience of disgust itself activate the anterior insula and the adjacent frontal opercula, together with the anterior insula and adjacent frontal operculum (IFO) (Phillips et al., 1997). Lesions in this structure modify not only the experience of disgust (Adolphs et al., 2003) but also the interpretation of disgust in others (Calder et al., 2000). Moreover, the insula could play a role in the network of cerebral areas responsible for simulating the states observed in others, thus making the insula a fundamental neuronal

the mirror neurons than those who have a low score (Gazzola et al., 2006). These are some of the findings drawn from the application of neuroimaging techniques.

structure both for emotional contagion and for empathetic comprehension. In turn, the IFO would be responsible for the two key aspects of simulation: the activation of simulated states and feeling one's own states, either simulated or experienced (Keysers and Gazzola, 2006).

Empathy Toward Pain and Forgiveness

Pain is a special psychological state with great adaptive value, which could be directly experienced or indirectly inferred in someone else. The perception and processing of a painful stimulation is the product of a combination of perceptive, sensorial and emotional components (Ploghaus et al., 2003). While the primary and secondary sensory cortices are principally involved in the discriminative sensorial aspects, the anterior cingulate cortex (ACC) and the insula are implicated in the affective-motivational component of pain. However, both components, known as "the pain matrix" are closely related and it is difficult to differentiate them (Hofbauer et al., 2001). Numerous neuroimaging studies indicate that only the affective component of the pain matrix would be implicated in empathy to pain. Nevertheless, empathy is a complex construct which not only contains an emotional component but also cognitive and somatomotor factors. Therefore, it is possible that empathy could also be based on fundamental mechanisms that allow for the representation of the sensations of others in one's own sensoriomotor system.

The perception of pain in other people is also modulated by different factors such as the experience of the individual who observes. For example, pain structures are less activated in expert acupuncture practitioners when they observe sequences in which needles are inserted into different parts of the body, including the mouth, hands and feet as compared to practitioners who had never carried out these types of procedures (Cheng et al., 2007). In addition, some indications point out that women could be more reactive than men to the observation of painful stimuli (reflecting the vicarious response to pain), and thus, are more empathic (Han et al., 2008). On the other hand, it has also been noticed that not all individuals evidence this kind of empathic reaction to pain. In fact some actually show the opposite response, as this chapter will explore.

Similarly, a series of studies have evaluated empathy together with the behavior of forgiving. Both empathetic judgment and forgiveness activated the left superior frontal circumvolution and the orbitofrontal cortex. Empathetic attitudes activated the left anterior temporal medial and left inferior frontal regions, while forgiveness activated the dorsal cingulate gyrus (Farrow et al., 2005).

Nonkilling Empathy and Lethal Indifference: Two Sides of the Same Coin?

Research discoveries on empathy and the brain have come to conclude that structures such as the prefrontal cortex, the temporal lobe, the amygdala and other structures of the limbic system such as the insula and the cingulate cortex play a fundamental role in empathic development (Moya-Albiol et al., 2010). The limbic system receives primary impulses and transmits them to the cerebral cortex, and in particular the prefrontal and temporal regions. The prefrontal region is specially developed in humans in comparison to non-human primates and controls and regulates impulses and is crucial to complex cognitive behaviors, including emotions, decision making and social relations. The importance of these areas has been acknowledged in the expression of empathy but they are also activated with violent behavior. How can the same areas of the brain be related to such different behaviors?

Exploring this problem could be extremely relevant to understanding and preventing human killing and violence in general. If we can conclusively argue, on the one hand, that brain damage to empathetic neurocircuits is a crucial factor for violent behavior and, on the other, that the lack of adequate human social models in the nurturing of infants is one of the main causes of this type of damage, or, in other words, that empathy is the normal human condition, this would have tremendous implications for the way we understand violence, education and rehabilitation.

Intuitively, empathy has frequently been identified as an element that contributes to peace, nonviolence and nonkilling, as it is seen as an inhibitor for aggressive behavior—if someone can put him or herself in somebody else's position it is harder to inflict harm on that person. Even if this belief was grounded in learning and observational experiences, the biological bases for empathic inhibition were unknown. But a careful analysis of neuroimaging research shows an overlap between brain areas related to empathy and violence. Neuronal circuits for empathy, if inappropriately stimulated during ontogeny, could disable the circuits and create a shift from their natural function of developing the ability to recognize and share the feelings of others toward an inability to empathize with others, thereby making lethality against fellow human beings more likely.

We are certainly capable of being empathic, violent or even both, but it is the environment and the experiences through which humans are nurtured that greatly determines the outcome. We know that encouraging empathy has an inhibiting effect over violence, which can be explained in social terms and also biological—stimulation of certain neuronal circuits in one direction reduces their activity in the other. In summary, if nurtured with normal prosocial hu-

man models, ontogenic development will lead to healthy empathetic brain structures. In contrast, the lack of proper postnatal models may damage these structures allowing for pathological violent behavior. Educating people to be empathic is crucial to bring about nonviolent societies and a nonkilling world.

Maltreatment, Empathy and Killing

Previous experiences are crucial to understand empathy and its development. One study of one to three year old boys with similar social backgrounds and stress levels showed how, when encountering peers with difficulties, reactions varied significantly between those who suffered home maltreatment and those who had not. Boys who had not been maltreated carefully observed peers with difficulties, showing concern and providing comfort. Those who had been maltreated showed no empathy and reacted with anger, threats and even physical aggressiveness. One hypothesis is that brain damage due to child maltreatment is responsible for breaking the natural tendency toward empathy but it could also be that the model transmitted by parents during the first years of life, empathetic or nonempathetic, shapes future personal development. In either case, it is clear that child maltreatment is negatively correlated with the development of cooperation, altruism, prosocial behavior and empathy. Some of the data actually points toward the conclusion that damage to neural circuits due to early childhood maltreatment is responsible for the perpetuation of the cycle of violence as the circuit is activated through violent responses preventing empathetic modulations of the same circuit (Mesa-Gresa and Moya-Albiol, 2011).

Aftereffects of child maltreatment are subject to individual differences in resilience to learn from and integrate trauma. Not every child that is subjected to maltreatment evidences brain damage or psychopathologies but chronic stress and traumatic experiences can lead to severe cognitive, emotional or physical injuries. During adulthood, early brain damage can manifest itself through PTSD, depression, substance abuse or personality disorders (Cicchetti and Toth, 2005; Tyrka et al., 2009). Absence of traumatic experiences and high levels of stress during the first years of life favors more emotionally stable, prosocial, empathetic individuals, who are less aggressive and less predisposed to violence.

Neurobiological consequences of child maltreatment and/or negligence can be both structural and functional, affecting brain circuits and the way they operate during specific behaviors or psychological processes. These include damage in the hippocampus, the amygdala, the superior temporal gyrus, the cere-

bellum, the corpus callosum, the prefrontal cortex, ventricular and brain volume (De Bellis, 2005; Grassi-Oliveira et al., 2008; Mesa-Gresa and Moya-Albiol, 2011). Physical impacts are associated with cognitive malfunctions, including high levels of psychosocial stress, social and behavioral problems (Watts-English et al., 2006) that can ultimately lead to a variety of psychopathologies. Crucially, brain areas damaged due to early childhood maltreatment are those which stand out in aggressive adults, bringing forward the neurological basis for a “cycle of violence” pattern (Craig, 2007; Mesa-Gresa and Moya-Albiol, 2011). Violent behavior can not only be learnt and developed through social learning but can actually be predisposed through the shaping and alteration of brain structures through child maltreatment.

High levels of stress during early childhood severely disrupt normal development, as they lead to significant increases in hormone levels which shape structural and functional changes in the brain. These alterations have effects on the main brain regions, the central nervous system, the autonomic nervous system or the immune system, but are also shaped by growth factors, nutrition (Bohannon, 2009), social environment, type of abuse and gender. The interaction and feedback between different factors is crucial to understand the deep effects of maltreatment and the array of responses that can appear in different individuals.

Different forms of early childhood deprivation can lead to a variety of psychological and neurobiological aftereffects. Negligence and abandonment can actually inflict more long-term and severe effects than physical or sexual violence, as they cause greater damage in brain structures linked to emotional and cognitive abilities. Children reared in aggressive environments with frequent physical or sexual violence tend to develop hypervigilance and respond with hostility to most situations (Lee and Hoaken, 2007). But it is actually rare for this kind of behavior to appear on its own, as most children who are subjected to maltreatment have also suffered negligence and abandonment. Obviously, children reared in social environments marked by violence and deprivation—such as war-torn regions, crime-dominated neighbourhoods or areas with severe food scarcity—are also subject to similar suffering and possibly more severe psychological and neurobiological impacts (Neugebauer, Hoek and Susser, 1999).

While sexual abuse is more prominent among girls, brain damages due to this type of abuse appears to be more pronounced among boys, showing greater alterations of the corpus callosum, less cerebral volume and greater ventricular volume (De Bellis, 2005; De Bellis and Kuchibhatla, 2006). These differences could also be the basis for sexual dimorphism in long-

term psychopathologies displayed in adulthood as a consequence of early childhood maltreatment. Additionally, it has been noted that the sooner maltreatment begins and the longer it lasts, greater are the brain deficits and damages that can be observed. Other factors include preexisting conditions that can exacerbate the consequences of maltreatment or sexual violence during childhood.

A Door to Rehabilitating Killers

If the hypothesis advanced in this piece is correct it could have important implications not only for prevention, which is the key to building a nonkilling world, but also for the rehabilitation of killers, and victims or perpetrators of violence in general. Because empathic brains inhibit violent behavior, fostering forms of parenting and education, especially during early childhood, that bring about more empathetic individuals is instrumental in reducing violence and other antisocial behaviors. Lack of empathy, which not only leads to violence and killing but is arguably linked to other social problems such as structural violence and oppression, could certainly be a preventable condition which can be addressed through appropriate public health programs (See Krug et al., 2002).

If empathy and violence or lethal indifference are controlled and regulated by the same brain circuits, it could help us not only understand the links between environmental and neurobiological factors in violence but eventually it could allow for the design of rehabilitation programs and treatments for those who have suffered such damage. It is unclear if this can be applied to individuals with psychopathic disorders, but it certainly opens the door for a better understanding of the role of empathy in aggressive behavior. More research on cerebral structures and neural substances involved in empathy would also facilitate advances in the field of psychopharmacology of violence and other therapies, which currently are unable to properly address the problems of violence and killing and its opposite side, human empathy.

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Prevention of Homicide by Treating Proactive Aggression in Schoolchildren

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Introduction

Aggression has been well studied (e.g., Dodge, 1991; Dodge and Coie, 1987; Vitaro, Brendgen and Tremblay, 2002), and in recent decades, it is understood as having reactive and proactive subtypes. The two-factor model of reactive-proactive aggression has been validated and is accepted in the field (Fossati et al., 2009; Fung, Raine and Gao, 2009; Poulin and Boivin, 2000; Raine et al., 2006; Xu and Zhang, 2008).

It has been suggested that extreme violence is associated with psychopathy and instrumental or proactive aggression. Specifically, previous studies (Egger, 2002; Eronen, 1995; Firestone, Bradford, Greenberg, Larose and Curry, 1998; Gacono, Meloy, Sheppard and Speth, 1995; Geberth, Vernon and Turco, 1997; Hickey, 1997; Kelleher and Kelleher, 1998; Schurman-Kauflin, 2000; Yarvis, 1995) have reported that homicide, which is the most extreme form of violence, is more prevalent in individuals with psychopathic or schizotypal personalities. Other studies have linked proactive aggression with psychopathy (e.g., Cornell et al., 1996) and negative outcomes including violence and youth delinquency (Brendgen, Vitaro, Trambly and Lavoie, 2001; Card and Little, 2006; Fite, Raine, Stouthamer-Loeber, Loeber and Pardini, 2009; Paradise and Cauce, 2003; Stice, Myers and Brown, 1998; Vitaro, Gendreau, Tremblay and Oigny, 1998). These findings lead to the speculation that psychopathy causes proactive aggression, which in turn increases the risk of committing homicide. In other words, proactive aggression, which is closely related to psychopathy, is a risk factor for homicide or the mediator between psychopathy and homicide. To reduce homicide, it is therefore crucial to understand proactive aggression and develop early interventions.

Reactive-Proactive Aggression

Recently, researches have emphasized the functions that aggression serves (Dodge, 1991; Dodge and Coie, 1987; Vitaro et al., 2002). This two-factor model of aggression has been well validated in North America. Raine et al. (2006) demonstrated that aggression could be meaningfully divided into proactive and reactive aggression. Poulin and Boivin (2000) found that this two-factor model fitted the data better than the one-factor model of aggression. The two-factor model was also validated in a study of Italian nonclinical adolescents (Fossati et al., 2009). Besides Western populations, this two-factor construct was found to be superior to the one-factor model in samples from Hong Kong and Shanghai (Fung et al., 2009; Xu and Zhang, 2008). Furthermore, previous studies have distinguished between proactive and reactive aggression in various domains: biological (Pitts, 1997; Scarpa and Raine, 1997), personal (Kempes, Matthys, de Vries and van Engeland, 2005; Tremblay, Hartup and Archer, 2005), cognitive (Dodge, Lochman, Harnish, Bates and Pettit, 1997; Schwartz, Dodge, Pettite and Bates, 1998; Smithmyer, Hubbard and Simons, 1998), emotional (Crick and Dodge, 1996; Dodge and Coie, 1987), social (Dodge, 1991; Price and Dodge, 1989), and behavioral (Dodge, 1991; Price and Dodge, 1989; Schwartz et al., 1998).

The concept of reactive aggression is based on the frustration-aggression hypothesis (Berkowitz, 1989) and defined as a response to provocation or a perceived threat (Dodge et al., 1997; Smithmyer et al., 2000). It has also been described as a hot-blooded, impulsive, and easily provoked response, involving high anger arousal and poor emotional regulation. Reactive aggressors hold a hostile attribution bias, which evolves into aggressive behavior through misinterpretation of others' cues and intentions, especially in ambiguous situations (Crick and Dodge, 1996; Dodge, 1991; Dodge and Coie, 1987).

In contrast, proactive aggression is defined as goal-oriented and calculated aggression performed to obtain external rewards (Fite, Colder, Lochman and Wells, 2008). Proactive aggression has been characterized as cold-blooded, unemotional, callous, narcissistic, and reward-driven that is focused on social dominance. Proactive aggression has been associated with emotional reactivity (i.e., skin conductance and heart rate acceleration) (Hubbard et al., 2002) and callous/unemotional personality traits, defined as a failure to show prosocial emotions such as empathy or guilt (Frick, Cornell, Barry, Bodin and Dane, 2003; Kruh, Frick and Clements, 2005). Blair (2003) considered proactive aggression to involve forethought and planning. Individuals who display proactive aggression are skillful at hiding their ag-

gressive behavior. They select the appropriate times and venues for expressing aggressive behaviors and act like different people in front of authorities and victims (McAdam and Schmidt, 2007). In addition, they are often described as smart because tend to exhibit superior verbal abilities, leadership attributes, sense of humor, and communication skills; however, proactive aggression is not associated with peer victimization or rejection (Arsenio, Adams and Gold, 2009; Poulin and Boivin, 2000). Pure proactive aggressors are relatively rare (Munoz, Frick, Kimonis and Aucoin, 2008). Proactive aggressors believe that they benefit from their aggressive behaviors by gaining power and control over others. However, they tend to overestimate the positive outcomes of using aggression to achieve their goals and underestimate negative consequences. In other words, their proactive aggression is often motivated by instrumental goals and purposes (Dodge, 1991) as well as their lack of empathy. Crick and Dodge described proactive aggression as “a deliberate behavior that is controlled by external reinforcements... a means for obtaining a desired goal” (p. 993). Proactive aggressors are calm and rational (Crick and Dodge, 1996; Roland and Idsoe, 2001), have a strong desire to control others, are often egoistic, and lack empathy for their victims (Olweus, 1994; Wong and Lo, 2002).

Because proactive aggression is goal-oriented and calculated aggression that is motivated by external rewards, this behavior can be understood in terms of the social learning theory of Bandura (1973). According to this theory, aggressive behavior is learned by imitating others (e.g., family members). The benefits gained by aggression provide incentives to repeat this behavior (Bandura, 1973). Other studies report that proactive aggression may result from disruptive social information processing (SIP) (Crick and Dodge, 1996; Dodge and Coie, 1987). The SIP model describes children’s reasoning of social events and behaviors of others based on encoding and interpreting social stimuli and then generating a goal, and selecting responses to those behaviors. Proactive aggressors are motivated by distorted social-cognitive reasoning as they attempt to generate and select appropriate responses to social events. They tend to use instrumental aggression to acquire rewards from others (Arsenio et al., 2009; Crick and Dodge, 1996). Along those lines, proactive aggressive behavior is believed to result from the collapse of moral socialization (Blair, 2004). Other studies (e.g., Arsenio et al., 2009) have found that the instrumental aggression of proactive aggressors stems from disrupted central values. They acquire tangible rewards with the aid of aggression and obtain positive emotional outcomes after enacting aggression. Since aversive and instrumental condition-

ing are the two processes important for moral socialization (Fowles and Kochanska, 2000), and amygdala is crucial in these two conditioning processes (LeDoux, 1998), the lack of moral central values characterized by proactive aggression may be due, at least in part, to amygdala dysfunction.

Previous studies have reported maladaptive or inconsistent parenting style as possible risk factors for proactive aggression. For example, Xu, Farver and Zhang (2009) reported that indulgent parenting is associated with proactive aggression. This may be because those parents do not care about their children or may even reject them. Indulgent fathers seldom play an important role in parenting; thus, the role of the father is weak. Mothers who adopt an indulging approach (Curtner-Smith, 2000) often neglect their children, spending very little time with them. These parents tend to tolerate their children's aggression and even normalize it, which encourages and fosters these behaviors. Carney and Merrell (2001) found that inconsistent parenting may also contribute to proactive aggression of children. These parents are emotionally unstable and often scold and beat their children in moments of agitation; therefore, their children learn to react with violence (Roberts, 2000). These behaviors may evolve into a means of obtaining benefits. Therefore, proactive aggression is hereditary, passed down from one generation to another. Taken together, these findings suggest that maladaptive parenting styles increase the risk of proactive aggression in children.

In addition to parenting style, the family structure may be a risk factor for proactive aggression. Project Children and Adolescents at Risk Education (C.A.R.E.) (Fung, 2009), which aims to reduce youth aggression, asserts that children or adolescents from stepfamilies exhibit a higher proactive aggressive index than those from single-parent and nuclear families. The same study reported that stepmothers have lower self-efficacy regarding disciplining children than parents in other family structures. Most proactive aggressors receive little discipline or monitoring at home (Poulin and Boivin, 2000), which is an important aspect of parenting (Dishion and McMahon, 1998). Therefore, parents with low self-efficacy in disciplining their children tend to have children who possess proactive aggressive behaviors.

Proactive aggression has been associated with negative outcomes. For example, a meta-analysis by Card and Little (2006) found that proactive and reactive aggression predicted peer delinquency, peer rejection, depressive symptoms, and substance abuse in youth. In addition, proactive but not reactive aggression (as rated by teachers of 12-year-old children) predicted later delinquency (i.e., at 15 years) and DSM-related disruptive behaviors (e.g., oppositional defiant and conduct disorders) in a sample of Canadian

boys (Vitaro et al., 1998). Youth delinquency can lead to later antisocial behavior (e.g., Paradise and Cauce, 2003; Stice et al., 1998).

Proactive aggression is associated with delinquency and delinquency-related violence in adolescence (Brendgen et al., 2001; Vitaro et al., 1998), suggesting that these children undermine school regulations and discipline, exhibit poor conduct, and use their intelligence to obtain benefits through improper behavior (Crick and Dodge, 1996). Scarpa, Haden and Tanaka (2010) reported that proactive aggression is also linked with attention problems. One-third of the proactive aggressors had attention deficit disorder, 12.5% had depression, and another 12.5% had oppositional conduct disorder. Most proactive aggressors have personality defects (Kumpulainen, Räsänen and Puura, 2001); they believe that aggressive behavior is the proper way to handle interpersonal relationship (Andreou, 2001). In addition, there is also empirical evidence (Kaltiala-Heino, Rimpela and Rimpela, 2000) that they tend to have drug abuse problems that are more serious than those of reactive aggressors or reactive and passive victims. Adolescents who exhibit aggressive behavior are more likely to commit crimes before the age of 30 years (Roberts, 2000). Furthermore, the findings of a longitudinal study show that proactive aggressive adolescents are more likely to display antisocial behaviors and psychopathic features in adulthood, such as violence, interpersonal manipulation, callous affect, and risky and harmful use of alcohol (Fite et al., 2009). In other words, proactive aggression that emerges during adolescence may have a persistent negative impact on psychological and behavioral development.

Instrumental Aggression

Because of overlapping characteristics (e.g., goal-driven), proactive aggression and instrumental aggression are interchangeable constructs. For instance proactive aggressive youths prefer instrumental goals, such as the acquisition of desired material objects, over relational goals, such as developing friendships (Crick and Dodge, 1996). In addition, instrumental aggression is conceived as a premeditated means of obtaining a goal other than harming the victim, and is proactive rather than reactive (Berkowitz, 1993). In other words, proactive or instrumental aggression occurs when the desire for an external goal outweighs the injury to an individual (Bandura, 1983).

Similar to proactive aggression, instrumental violence is understood as violence that is goal-driven, requires planning, and occurs without provocation (Cornell et al., 1996). Thus, instrumental aggression requires a rein-

forcing environment. This suggests that the behavior is learned through operant conditioning and is driven by the expectation of the desired reinforcement. As with predatory aggression, to which instrumental aggression has been linked, the behavior is purposeful and goal-directed (Aronson, 1992; Kingsbury, Lamber and Hendrickse, 1997). Besides instrumental motives, it is typified by cold-blooded physiology and affect as well as deliberation (Fontaine, 2007). For instance, this type of violence is associated with decreased heart rate (Jacobsen and Gottman, 1998). Furthermore, instrumental violence stems from uncontrolled, biologically based psychopathology (amygdala dysfunction) and/or controlled decision making based on anticipated environmental consequences (observational and enactive learning of external reinforcers) (Blair, 2001). These findings show that instrumental and proactive aggression share considerable variance.

Psychopathy

Sharing features of proactive and instrumental aggression such as lack of empathy (Cornell et al., 1996), psychopathy is a personality disorder characterized by a profound affective deficit accompanied by a lack of respect for the rights of others and societal rules (Porter, 1996). According to the standard of Psychopathy Checklist-Revised (PCL-R; Hare, 1991), psychopaths are manipulative, callous, remorseless, impulsive, irresponsible individuals who often engage in antisocial behaviors. Other characteristics of psychopathy include: glibness or superficial charm, a grandiose sense of self-worth, pathological lying, conning or manipulative behavior, lack of remorse or guilt, shallow affect, callousness or lack of empathy, parasitic lifestyle, poor behavioral control, promiscuous sexual behavior, early behavioral problems, lack of realistic long-term goals, impulsivity, irresponsibility, failure to accept responsibility for one's actions, many short-term marital relationships, juvenile delinquency, and criminal versatility (Hare, 1980; Hare et al., 1990). In addition, psychopathic individuals tend to turn feelings of social isolation into withdrawal, aggression, and hostility (Meloy, 1992).

Proactive Aggression and Psychopathy

Researchers (e.g., Cornell et al., 1996) have suggested that psychopathy is closely related to proactive or instrumental aggression. Cornell et al. (1996) assert that the construct of psychopathy is broadly related to proactive aggression. They are both associated with behavioral attitudes and styles that are cold, emotionally shallow, self-motivated, and reward-driven. In addition, instrumen-

tal aggression may stem from uncontrolled, biologically based psychopathology (amygdala dysfunction) and/or controlled decision making based on anticipated environmental consequences (Blair, 2001). These findings suggest that psychopathy is closely related to proactive or instrumental aggression.

Empirical evidence also supports this hypothesis. Individuals with psychopathy show high rates of premeditated and instrumental aggression as adults (Woodworth and Porter, 2002) and youths (Frick et al., 2003; Kruh et al., 2005). Frick and colleagues (2003) found that elementary school-aged children with conduct problems and psychopathic traits showed higher levels of proactive and reactive aggression. Further, Raine and colleagues (2006) found that the psychopathic personality was related to residualized scores of proactive aggression. Porter, Woodworth, Earle, Drugge and Boer (2003) showed that psychopathy was associated with instrumental, cold-blooded homicide, suggesting that psychopaths are predominantly proactively violent. Similarly, Chase, O'Leary and Heyman (2001) reported a significant relationship between psychopathy and the use of instrumental violence by men who assault their spouses. Of 60 abusive married men, 17% who were categorized as instrumentally aggressive but 0% categorized as reactively aggressive were classified as psychopathic. A study by Cornell et al. (1996) yielded a similar finding. High psychopathy scores were associated with proactive aggression, and psychopaths (as classified using the PCL-R) were more likely to have committed instrumental violence than non-psychopaths in a sample of 106 male offenders in a medium security state prison. Finally, a study of 121 male prison inmates (Cima and Raine, 2009) showed that total psychopathy scores were related to residualized scores of proactive (but not reactive) aggression. Taken together, these findings suggest that psychopathy is predominantly characterized by proactive aggression.

Psychopathy and Homicide

Besides proactive or instrumental aggression, prior studies (e.g., Gacono, 2000; Meloy, 1992) have suggested a relationship between psychopathy and violence. With a prevalence of 15% to 25% in the federal inmate population, psychopathy is an important risk factor for violence (Lyon, Hart and Webster, 2001; Salekin, Rogers and Sewell, 1997). Accordingly, psychopaths have a disproportionately high rate of criminality. Results of numerous studies support the association between psychopathy and violent crimes in juvenile delinquents (Brandt, Kennedy, Patrick and Curtin, 1997; Forth and Mailloux, 2000; Frick, Barry and Bodin, 2000; O'Neill, Lidz and Heilbrun, 2003) and adult of-

fenders (Heilbrun et al., 1998; Poythress, Edens and Lilienfeld, 1998; Skeem, Monahan and Mulvey, 2002). In addition, psychopaths are about five times more likely than non-psychopaths to engage in violent recidivism within 5 years of release from prison (Serin and Amos, 1995). These findings support the idea that psychopathy poses a risk for violence.

Regarding the characteristics of violence, crimes committed by those with psychopathy are more aggressive and violent (Hare and McPherson, 1984) and tend to be more callous and cold than crimes committed by other offenders. Further, psychopaths receive more convictions for crimes of violence, and have a higher incidence of aggressive and violent behaviors while in prison than other male criminals (Hare and McPherson, 1984; Wong, 1984). Consistent with these findings, Huss and Langhinrichsen-Rohling (2000) reported that psychopathic individuals commit the most severe types of physical abuse against their partners. Taken together, these findings show the association between psychopathy and severe forms of violence that appear to result from lack of empathy and guilt.

Empirical evidence supports the close association between lack of empathy and guilt and crimes committed by psychopathic offenders. In a sample of 55 prison inmates, Cima, Tonnaer and Lobbestael (2007) investigated whether predatory and impulsive subtypes of psychopathy differed in their sense of moral emotions. Results showed that the general construct of psychopathy in prison inmates predicted a lack of guilt. Similarly, Levenston, Patrick, Bradley and Lang (2000) found a lack of empathy towards others in psychopathic offenders. A study by Williamson, Hare and Wong (1987) also showed that the feelings of psychopathic offenders were more callous than those of non-psychopathic offenders. Specifically, psychopathic offenders were more frequently motivated by material gain or revenge (45.2% of psychopaths vs. 14.6% of non-psychopaths). In addition, 31.7% of non-psychopaths exhibited strong emotional reactions such as jealousy, rage, or a heated argument during their offense, whereas only 2.4% of psychopaths exhibited strong emotions. Because of the lack of empathy and guilt, which are characteristics of proactive or instrumental aggression, psychopathy is closely related to violent acts, especially severe types. In other words, proactive or instrumental aggression may act as a mediator between psychopathy and violence.

The general lack of empathy or remorse and the presence of shallow emotions (e.g., Hare, 1991, 1998) in psychopaths could lead to homicide. Sexual homicides accounted for about 1% of all homicides in the United States but 4% of all homicides in Canada (Roberts and Grossman, 1993). Homicide is the most severe form of antisocial behavior and aggression, and

is associated with different contexts, motivations, and types of perpetrators. For example, some homicides are highly calculated instrumental acts, whereas others are characterized by an apparent lack of premeditation, occurring in the context of an emotional dispute or in response to provocation (Woodworth and Porter, 2002). Numerous studies have evaluated psychopathy and homicide among men. For instance, Yarvis (1995) investigated the prevalence of psychopathy in rapists and murderers. The prevalence of psychopathy was also investigated in homicidal sex offenders (Firestone, Bradford, Greenberg, Larose and Curry, 1998), serial murderers (Geberth, Vernon and Turco, 1997), and insanity acquittees (Gacono, Meloy, Shepard and Speth, 1995). However, a gap in the literature exists regarding gender effects on the relationship between psychopathy and homicide. Arigo and Griffin (2004) revealed the lack of systematic assessment of female homicide and the limited studies of female homicide and crime. Several studies (Egger, 2002; Eronen, 1995; Hickey, 1997; Kelleher and Kelleher, 1998; Schurman-Kauffman, 2000) found that women with psychopathy were at higher risk for committing murder compared with the general female population. Taken together, these findings indicate that psychopathy and homicide are strongly related in both males and females.

Aggression, Homicide, and Psychopathy

Besides psychopathy, evidence shows that homicide may also be related to proactive or instrumental aggression, which shares common characteristics with psychopathy. According to Delisi and Walters (2009), most single homicides are hot-blooded, impulsive, and reactive or situational acts, whereas multiple homicides are generally cold-blooded, purposeful, and proactive or instrumental. Murder is characterized as instrumental violence, and manslaughter as reactive violence (Bushman and Anderson, 2001; Dodge, 1991; Kempes et al., 2005). Given that psychopathy and proactive/instrumental aggression are strongly related and that both are associated with homicide, psychopathy and instrumental or proactive aggression may be intercorrelated.

This speculation is supported by previous studies (Woodworth and Porter, 2002; Porter and Woodworth, 2007), which suggested that the characteristics or motivation behind homicides committed by individuals with psychopathy are related to proactive or instrumental aggression. Woodworth and Porter (2002) assessed the relationship between psychopathy and the characteristics of homicides in a sample of 125 Canadian offenders. The results showed that 93.3% of homicides committed by psychopaths were

primarily proactive or instrumental in nature, whereas 48.4% of the homicides committed by non-psychopaths were proactive, demonstrating that psychopaths are more likely to engage in cold-blooded or proactive homicides. Similarly, Porter and Woodworth (2007) reported the characteristics of homicides committed by psychopaths and non-psychopaths (as rated by PCL-R) in a study of 50 offenders incarcerated for homicide. Results suggested that psychopaths were more likely than their counterparts to commit instrumental homicides. Specifically, it was found that murders committed by psychopaths (88.9%) were more instrumental than those committed by non-psychopaths (42.1%). Further, psychopaths are more likely to plan and execute an instrumental murder, and an arrest for a carefully perpetrated homicide is less likely. Based on their pathological personality traits and in light of previous research on psychopathic aggression (e.g., Cornell et al., 1996), psychopaths tend to engage in more instrumental, goal-driven homicidal violence (e.g., to obtain money) compared with non-psychopathic offenders, who tend to engage in reactive and spontaneous violence (e.g., in the context of a heated argument). In short, these findings indicate close associations among psychopathy, proactive or instrumental aggression, and homicide. Specifically, proactive or instrumental aggression may be the mediator in the relationship between psychopathy and homicide.

Treatment

Given that homicide poses a risk to the society, it is important to implement programs or interventions to help solve this problem. Various researchers (e.g., Eaves, Douglas, Webster, Ogloff and Hart, 2000), have asserted that it is important to understand whether violence is primarily instrumental or reactive, because it is the most relevant criterion in assessing the risk for future violence and treatment prognosis of criminal offenders (Heilbrun et al., 1998). Because proactive or instrumental aggression and psychopathy are risk factors for committing homicide, and proactive/instrumental aggression may mediate the relationship between psychopathy and homicide, targeting proactive/instrumental aggression may be an effective way to reduce homicide.

For years, the primary treatment for psychopathy has been pharmacological. However, targeting proactive or instrumental aggression through psychosocial interventions, especially at early stages, may be a useful alternative method to reduce homicide rates. Connor and McLaughlin (2006) suggested the need for psychosocial and psychopharmacological treatment interventions targeting excessive maladaptive aggression across multiple

psychiatric diagnoses in children. Among various psychosocial treatment approaches, Vitiello and Stoff (1997) report that proactive or instrumentally aggressive children are more likely to respond to behavioral therapy, because they are more capable of behavioral control.

Psychosocial interventions for aggression for adolescents or children have been widely implemented. Programs for the prevention of bullying in school include Peacebuilders, Olweus Bully Prevention Program, Providing Alternative Thinking Strategies (PATHS), Resolving Conflict Creativity Program (RCCP), and Second STEP (Newman-Carlson and Horne, 2004; Stevens, Bourdeaudhuij and Oost, 2001). However, no studies have evaluated interventions for adolescents or children displaying proactively aggressive behavior. Therefore, Project C.A.R.E. (Fung, 2008) has developed a 10-session cognitive-behavioral therapy (CBT) group intervention for this subtype of aggressive adolescents to reduce levels of proactive and general aggression. Its effectiveness has been supported by quantitative and qualitative measurements of different data sources (student self-report, parent and teacher ratings) at multiple time points in the 2-year longitudinal study (Fung, Gerstein, Chan and Hutchison, under review).

The encouraging evidence-based outcomes largely support the findings of a prior study (e.g., Glancy and Saini, 2005), suggesting that small group therapy sessions are more effective than individual counseling or family therapy in reducing students' proactive aggressive behaviors. The small group approach encourages participants to share personal experiences and generates sympathetic responses from group members. Participants can learn from each other's experiences, absorb useful information, and achieve personal growth through self-reflection. To provide a comprehensive prevention measure for proactive aggression, the counseling is not limited to adolescents but includes elementary school-aged children (9–12 years old). Besides student groups parent-child parallel groups help parents rebuild the parent-child relationship and improve mutual communication skills and patterns (Fung, 2011).

Results of CBT therapy for students and parents have demonstrated the importance of reducing proactive aggression at an early age. Fung et al. (2009) found that proactive aggression increases from 13 to 17 years, especially among boys; however, this does not appear to be true for reactive aggression.

Cognitive-behavioral Therapy

Previous studies have found that CBT more effectively treats aggression than psychodynamic theory, behaviorism, or cognitive theory. (Kazdin,

1987; Lochman and Wells, 1996; Southam-Gerow and Kendall, 2000). Aaron T. Beck's (1976) cognitive therapy and Albert Ellis's (1956) rational emotive behavior therapy (REBT) are early forms of CBT. CBT has been used as the framework for small group therapy sessions to reduce proactive aggression since 2006, with encouraging results produced by different types of CBT groups (i.e., student-only, parent-only, and parent-child parallel groups) (Fung, 2006, 2008, 2009, 2010, 2011; Fung and Tsang, 2006, 2007; Fung and Wong, 2007; Fung et al., under review).

Albert Ellis's REBT and Beck's cognitive therapy of CBT are the main theoretical frameworks adopted by student groups and parent-child parallel groups, respectively. The details of each program are described below.

Rational Emotive Behavior Therapy

In ancient Greece, the Stoic philosopher Epictetus stated that "People are not disturbed by things, but by the view they take of them." Not until the mid-twentieth century had Western psychologists systematically transformed the philosophy to psychological therapy. Among these psychologists was Albert Ellis, one of the founders of CBT (Ellis, 1962).

Ellis (1956) believed that humans have the ability to find answers through reflection and self-talking. Hence, people can use rational ways of thinking to lead happy lives. In contrast, irrational beliefs lead to negative emotions and behaviors. Some researchers have used this concept in therapy programs for adolescents with aggressive behavior (Guerra, Huesmann, Tolan, Van Acker and Eron, 1995; Huesmann and Guerra, 1997; Lochman and Dodge, 1994; Quiggle, Garber, Panak and Dodge, 1992). DiGiuseppe and Kelter (2006) reviewed outcome studies and articles assessing the effectiveness of REBT, and concluded that REBT is well suited for aggressive children. The psychoeducational nature of REBT lends itself to educational settings, and REBT is useful for the families of aggressive children, particularly their parents. By these reasons, we use REBT as the major theoretical framework in our small group therapy sessions.

Through the ABC model, we can understand the cognitive processes behind aggressive behavior. When an event (A) happens, beliefs (B) lead to specific consequences (C) such as behavioral and emotional responses (Ellis and Grieger, 1977). When a proactive aggressor holds an irrational belief, this can lead to negative consequences. For instance, when a proactive aggressor is knocked down by a classmate during recess, the aggressor tends to believe that he/she needs to express their power by threatening the classmate or ask-

ing for compensation. This example shows that beliefs directly affect emotions and the behavioral consequences. The cognitive distortion of proactive aggressors causes deviant behaviors and negative emotions.

Ellis and Grieger's study (1977) revealed that 12 common types of irrational beliefs distort thinking, resulting in emotional distress and negative behaviors. These irrational beliefs are: (1) it is a dire necessity for adults to be loved by their significant others for almost everything they do; (2) certain acts are awful or wicked, and people who perform such acts should be damned; (3) it is horrible when things are not the way we like them to be; (4) human misery is invariably caused by external forces (i.e., events and other people); (5) if something is or may be dangerous or fearsome we should be terribly upset and endlessly obsess about it; (6) it is easier to avoid life's difficulties and responsibilities than face them; (7) we absolutely need something other or stronger or greater than ourselves on which to rely; (8) we should be thoroughly competent, intelligent, and achieving in all possible respects; (9) because something once strongly affected our life, it will affect us indefinitely; (10) we must have certain and perfect control over things; (11) human happiness can be achieved by inertia and inaction; and (12) we have virtually no control over our emotions and we cannot help feeling disturbed about things.

These irrational beliefs reflect personal values and outlooks on life. Failure to achieve needs based on these beliefs, cause individuals to question their values, become emotionally distressed, and cause harm themselves or others. These 12 irrational beliefs are discussed in counseling to help that proactive aggressors better understand the causes of negative behaviors and emotions.

Beck's Cognitive Therapy

Beck's cognitive therapy (1995) provides a clear and specific theoretical framework to assess the core beliefs, intermediary schemas, and automatic thoughts of therapeutic group participants. Cognitive model explains the emotional and behavioral responses resulting from automatic thoughts. Automatic thoughts are products of deeply rooted core belief and intermediary schemas. Automatic thoughts are more easily detected than core beliefs and intermediary schemas.

Core beliefs can be divided into two categories: helplessness and unlovability. These two core beliefs influence the intermediary schemas (e.g., attitudes, rules, and assumptions). For example, the feeling of helplessness produces these intermediary schemas: incompetence is horrifying (attitude); I must not show weakness (rule); I am bullied because I am use-

less (assumption). In a cognitive process, automatic thoughts that trigger cognitive distortion are shaped by core beliefs and intermediary schemas. To help proactive aggressors dispute irrational beliefs: (1) let group members understand irrational beliefs through case studies; (2) probe the causes of irrational beliefs and the various factors that affect them, such as health, emotions, and social factors; (3) dispute irrational beliefs and deviation of thought through the process of Detect, Discriminate, and Debate; (4) widen the group members' thinking and help them develop rational beliefs; (5) apply rational beliefs and positive behavior in daily life, and allow them to see the emotional and behavioral difference.

Group Formats and Contents

Three forms of interventions for proactive aggression in Project C.A.R.E adopt these CBT therapeutic approaches; they are targeted to: (1) youths, (2) their parents, and (3) both parent and child. Youths aged 13 to 15 years receive the first type of intervention. However, studies (Carney and Merrell, 2001; Curtner-Smith, 2000; Fung, Wong and Wong, 2004; Roberts, 2000; Xu et al., 2009) suggest that parenting style and the environment in which the children live affect proactive aggression; thus all three forms of interventions are appropriate for those aged 9 to 12 years. Treatment for the youths themselves aims to reconstruct the distorted cognitive structure; reduce anger, impulsivity, and verbal and physical aggression; and strengthen anger management skills. Interventions for parents aim to enhance parenting and communication skills, dispute irrational thoughts, and adjust expectations of their children. Project C.A.R.E. also provides parent-child treatment that aims to rebuild a harmonic parent-child relationship and engender mutual, reciprocal, and interactive communication between youths and their parents. The ultimate goal of these interventions is to reduce proactive aggression through interventions with cognitive (disputing irrational beliefs), emotional (empathy training), and behavioral approaches (relapse prevention). These psychosocial interventions for proactive aggression will help prevent homicides.

The contents of the CBT program, regardless of group format, is as follows. In session 1, students share comments about their relationships with teachers and life at school, and group expectations are established. In sessions 2 to 4, the histories of the students' aggressive behavior are obtained; goals and reinforcers of their aggressive behaviors and their emotional experiences are assessed through role-play, video recordings, and discussion. In session 5, students learn the ABC paradigm of CBT, and their irrational beliefs are ex-

plored. In session 6, they are taught to recognize the negative consequences of their aggressive behaviors. In session 7, students are presented with a bullying case and asked to consider the perspectives of different people in role-play. In session 8, students learn the concept of sensibility; questions are asked to identify and dispute irrational beliefs. In session 9 they receive empathy training. The last session integrates the learning from previous sessions. For details about the content of group therapy, the interested reader is referred to a manual developed as part of Project CARE (Fung, 2008).

Conclusion and Future Directions

Empirical evidence indicates that psychopathy and proactive/instrumental aggression, which are interrelated, are risk factors for homicide. These associations indicate the possibility that those with psychopathy commit homicide mainly because of their callous emotion and lack of empathy, which are the major characteristics of proactive or instrumental aggression. In other words, proactive or instrumental aggression may mediate the relationship between psychopathy and homicide. Although this hypothesis is plausible, to the author's knowledge, no studies have examined this potential effect of proactive/instrumental aggression. Therefore, it is crucial to investigate this mediating role of proactive aggression to help develop and implement more effective preventive or intervening measures to reduce homicides by psychopathic individuals. Most importantly, these findings indicate the need for psychosocial interventions for proactive/instrumental aggression at younger ages. Therapy provides an alternative to pharmacological approaches to solve the problem of homicide.

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Overcoming Psychological Obstacles within the Movement toward a Nonkilling World

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Introduction

This is a paper about the psychological obstacles to making societal structural changes. It discusses the structural changes advocated by the UNESCO Culture of Peace Program and how making these changes require an understanding of our human condition. This condition poses challenges for those who wish to build a nonkilling world and, in an attempt to face these challenges, we discuss the development of needed communities and the political work that must be done. The paper concludes with a suggestion as to how we might begin to build the sort of organization that could help us construct a nonkilling society.

We live in a global culture that is awash with weapons and used to warfare, in a global economy where we have little control over corporations that are devoted to making profits without regard to the welfare of workers or effects on the environment, and where the elites within most nations deal with one another in ways that maintain the existence of strong class differences. In the U.S. we must deal with a military industrial complex that has congressional representatives competing for campaign funds and defense jobs in their districts created by companies that produce weapons that often have little military justification.

This paper asserts that these objective barriers can be overcome if we address certain psychological problems within those of us working for a nonkilling world. It does not address the psychological problems of those in power who resist transforming the social order, nor the egoistic narcissism and anxiety that hinder those of us who want to transform it. Rather, it focuses on some psychological dynamics that hinder the unification of the peace movement and divide the movement from potential allies. Although, it is not “evidence based,” its description of problems and suggestions for solution are built on a substantial amount of literature, conversation, and experience.

The objective barriers are aspects of a social system with various structural problems. Marxist analysis stresses the problems stemming from the structure of capitalism; feminist analysis focuses on the structure of patriarchy, and anarchist analysis underscore the problems of states and their bureaucracies. Yet all these structures are interrelated: The exploitation of labor and need for new markets, the dominance of hegemonic masculinity, and the obedience to orders and rules, are dynamically intertwined aspects of a societal system that involves killing others and is related to a culture of war. To change this system we need to become aware of the extent of the problem without becoming overwhelmed with despair. This is one of the psychological challenges considered below.

We can only meet this challenge by realizing that we are active agents who help create the culture in which we live. Our individual actions help establish the norms that influence behavior (Johnson, 2005), our collective actions help establish the societal institutions that support the social system (Hearn, 1997), and our vision of the future helps establish that future (Boulding, 2000). Thus, if we can envision a peace system that is structured to promote a nonkilling world, facing psychological problems will enable us to overcome some of the objective barriers and reach our goal¹.

Fortunately, we have a description of such a culture, and an outline of the underlying structural base that is required for a nonkilling system. Such a vision is provided by UNESCO's program for building a global culture of peace (UNESCO, 1995).² I begin this paper by describing this vision, the support for it, and how the first attempt at its actualization failed. Then I will describe the psychological obstacles, the development of the communities we need, the political work that must be done, and how we might build the sort of organization that could help us construct a nonkilling society.

Building a Culture of Peace

Beginning in the mid 80's, the UNESCO leadership suggested that citizen groups could work with national governments to begin building a global

¹ There are two caveats: First, although this approach to (or theory of) peace presents peace as dependent on transforming a social system, it should not be presumed that we are dealing with static systems. Rather, we must wrestle with dynamic systems that may be based on how conflict is managed. Second, the social system has a spiritual or mythic dimension. It may actually involve Spirit.

² The concept of a culture of peace is related to the idea of a peace system (Irwin, 1988); a related concept is that of human security (as opposed to national security), and a similar vision is suggested by the World Charter.

culture of peace. Such a culture would involve values, attitudes and behaviors that rejected violence, would endeavor to prevent conflicts by addressing root causes, and would aim at solving problems through dialogue and negotiation. The culture would not be without conflict but would attempt to manage violent competitive conflicts by transforming them into cooperative development for shared goals.

Conceiving such a culture as the opposite of a culture of war, they articulated eight different structural bases that became an action program to develop a culture of peace:

1. Education (especially, education for the peaceful resolution of conflict)
2. Sustainable development (viewed as involving the eradication of poverty, reduction of inequalities, and environmental sustainability)
3. Human rights
4. Gender equality
5. Democratic participation
6. Understanding, tolerance, and solidarity (among peoples, vulnerable groups, and migrants within the nation, and among nations)
7. Participatory communication and the free flow of information
8. International peace and security (including disarmament and various positive initiatives)

Note that these components are all interrelated. Education on peaceful conflict resolution is needed for the nonviolent struggle involved in achieving sustainable development and preventing the exploitation of workers and the environment. Sustainable development helps insure a respect for human rights and this respect is linked to the gender equality that helps prevent the dominance of men over women. This equality is related to democratic participation, and this participation requires the participatory open communication that is more apt to occur under conditions of security. Further, the components unite the major social movements of our time: the movements for peace, human rights and tolerance, gender equality, democracy and open communication, global economic justice, and a sustainable environment. Implicit in the uniting of these components under the rubric of a culture of peace is that they form a coherent whole that might be contrasted with a culture based on war. Unfortunately, such a formulation was resisted by the leaders of many Western nations including the United States. They objected to the idea that we live in a culture of war and argued that their military dominance was maintaining peace. Wanting to maintain military and economic dominance they refused to financially support culture of peace pro-

grams. Although the idea had popular appeal—the U.N. General Assembly passed a resolution detailing programs of action to build a culture of peace and 70 million people in dozens of different nations signed a petition in its support—programs of action never received sufficient funding and many people today are unaware of the idea and its potential to address the root causes of war and injustice and unify those of us who want peace and justice.

The vision of a culture of peace that could be created by people and states merits the full support of all who wish to create a nonkilling global society. Initially, the UNESCO promoters of a culture of peace appear to have hoped that the UN would support the establishment of such a culture. However, the resistance of powerful nation-states has led many to abandon that vision.

Are nation-states the problem or part of a solution that involves numerous building blocks?³ In any case we must face their current existence in an international system that involves struggles for dominance and an acceptance of killing and the threat of killing. How may we develop the sort of civil society that will demand that powerful governments work towards the nonkilling culture we need? I believe that we need to form a new sort of political organization that will enable us to cooperate to attain a culture of peace. Before addressing how this might be done I want to articulate the psychological challenges that must be faced. For the macro barriers to peace such as corporations, elite power nets, and the military industrial complex, are held in place by “micro matters” that have been identified in the psychological literature, matters such as egoism, personal needs for power, the fear of identity loss, and the intergroup favoritism that leads to moral disengagement and violence. A nonkilling culture of peace must consider our human nature and this means facing certain conflicts that are experienced by those of us who live in our current culture.

When we assume that people have a propensity for violence and selfishness we forget that our assumption is based on cultural norms and that many of these norms are products of our current culture of war. In fact, there are

³ Adams (2009) now argues that it is impossible to realize such a vision as long as we are living in a system of nation states. He suggests that the best approach is to encourage citizens to work with local governments to establish cities with peaceful cultures. Others agree that international institutions, such as the UN, are not capable of creating a new world order, but argue that states are necessary for democratic control and are gradually evolving so that a new transnational order is being built. For example, Slaughter (1997) suggests that the functions of the state are being disaggregated and bureaucrats are networking across national boundaries to form a transgovernmental community. A number of building blocks are described in de Rivera (2009).

not only peaceful people; there are also peaceful *peoples*—societies without war, murder, or rape (See Fry, 2007). The UNESCO promoters of a culture of peace point out that we humans are not necessarily violent and can produce nonkilling collectives. We are quite capable of creating peaceful cultures and human nature is a cultural product that is quite malleable. However, our propensity to use violence is undeniable and I believe it is incorrect to assume that we only kill in extreme conditions.⁴ I doubt that it is only nation states, multicultural corporations, and elites in general, that hold the culture of war in place because we humans created these very structures. Although a majority of U.S. citizens may want peace, they also want to be number one and elites can always make national power salient and lead many to support military strength and the numerous military bases that maintain U.S. national dominance. Hence, it seems to me that our human nature is quite problematic and involves psychological challenges that must be addressed if we are to create a culture of peace. Our problem is not simply with oppressive structures and those with power, it is also with what in us stops us from changing these structures in a nonviolent way. So before discussing what we need to do, and proposing a way to do it, I want to discuss our identity as human beings.

Our Problematic Human Nature

But how may we attempt to describe our human nature? It is hard to assess because it is a cultural as well as a biological product, and we are so very malleable. There are people and cultures that are immersed in violence while others are horrified by it. In our own society there is an attraction to violence and a horror of it, a fascination and a disgust; we have both an incredible capacity for empathy, courage, and sacrifice, and a disturbing propensity for cheap thrills and cruelty. In fact, a central problem in establishing a culture of peace is that we have different understandings of our nature and hence what peace requires. Here, I want to describe the difference between conservative and liberal understandings of our nature and suggest a third way of conceiving of our identity that I believe accounts for these differences and offers a more accurate picture of our nature and what a culture of peace would require.

It may be argued that conservatives tend to believe that we are individuals with a basically sinful nature with which we need to struggle. Most

⁴ Although Adams (2008) argues that it was situational circumstances, such as resource scarcities, that led humans to produce our current culture of war, Otterbein's (2009) data suggests that warfare develops as soon as societies develop economic inequalities that lead to internal divisiveness.

conservatives accept the idea that we have aggressive impulses, might like to cheat, steal, philander, but can learn self control. To help control our own nature we need to learn self discipline, and to control the general human tendency towards egoism we need a government that can enforce laws. Hence, conservatives support *authority*, and within the family, many believe that a father should have this authority.

On the other hand, liberals tend to believe that we are basically good and can learn to cooperate for the common good. They see our negative traits as stemming from an unfortunate childrearing or an environment that offers only negative choices. Problematic behavior is not due to a fundamental selfishness or struggles for power but to trauma. Rather than advocating authority and self control they stress *empathy* and the need to develop supportive environments.⁵

Yet neither of these belief systems, nor seeing our nature as a struggle between love and hate, seems to capture our basic human nature.⁶ A more fundamental model has been proposed by the Scottish philosopher, John Macmurray (1961). Rather than portraying us as in conflict between selfish/ aggressive tendencies and unifying/ loving tendencies, he argues that a more fundamental choice is between a fear that we are not loved and a love for what is other than our self. From his perspective, hate occurs as a response to the

⁵ Lakoff (2002) suggests that these differences may be best understood in terms of different cognitive models of the family. Conservatives believe in a morality based on a strong father who can provide the authority needed for impulse control, while liberals believe in nurturing parents who can model and encourage the empathy that is needed. Although Lakoff portrays his models as neutral cognitive science, the models he presents are designed to be incompatible, and since he favors the liberal model he advocates working for the dominance of this model. But what if our human nature is not so simple; what if both empathy and authority are needed? Certainly if we look at child rearing in our own culture, the evidence suggests that children need both nurturance and structure. Arguing that we should strive for a community that includes conservatives is antithetical to viewing conservatives as the enemy. To my mind the real enemy is the self-centeredness of many people of both persuasions, the selfishness of many who hold power, and defects in many of our institutions.

⁶ Some psychological theorists, such as Freud, suggest that we can best describe our basic human nature in terms of our having both aggressive and loving drives; others, such as Fromm, argue that we must all confront certain existential choices and can do so in either destructive or creative ways, giving meaning by either destroying or creating; still others, such as some cultural psychologists, stress the contrast between individualistic and collectivist cultures. Wink (1992) suggests still another choice: A belief that there is a need for violence to create order vs. a belief that the world is fundamentally good and that evil lies in certain institutions.

frustration of our need to care and be cared for. Thus, the basic choice is not between love and hate, but between love and fear. The dynamics involved in this choice explain the differences between conservatives and liberals, and are involved in the fundamental problem we all face (de Rivera, 1989).

Our Human Identity

Macmurray points out that we humans are born into personal relationships. As soon our self is differentiated from what is other (initially our mother) these relationships necessarily involve both a caring for what is other and a fearing for self. Although both these motivational strands are present, one is always dominant in the relationship. We are dependent on the caring of the other and when this seems to fail we are hurt and the fear for our self becomes dominant over our caring. Since the person only exists in relation to others, the *person* is not really the *self*. Personal identity exists in relating to others. However, when we are hurt and our fear for self dominates, this fact is overlooked and we lose our sense of personhood. We either experience ourselves as an individual self who must look out for him or her self (because we cannot depend on the other), or we abandon our self to identify with the other on whom we must depend. In the latter case, we identify the self as part of a group with a common good to which we must conform. Of course, we do have an individual self and a group self but when our fear for our self dominates our caring for what is other we lose a sense of our personhood and become split. Thus, our fear for ourselves leads us to become either individualistic and stress a “realist” need for power and authority or collectivistic and emphasize the “idealistic” goodness of others.

Whenever fear dominates caring splits develop, and these prevent the unification that is needed. We may split reason from emotion, mind from body, self from other, and realism from idealism. These lead to the tensions that I will address later as fundamental challenges for the peace movement. From this perspective, when we overly stress either our identity as an individual or our identity as a member of social groups we are betraying a fear for self that is generated by a sense that we cannot really depend on the caring of what is other than our self. Our identity as a creative person who is in relation to others has been masked, along with the fact that we are most ourselves when we care about someone or something that is other than our self. This personal identity is revealed when our caring becomes dominant and this can most readily occur when we feel cared for so we are not afraid for ourselves.

Who are we? When we identify ourselves as male or female, as American or European, as white or a person of color what is involved? Many current so-

cial psychologists distinguish between personal and social identity. Personal identity is said to refer to individual personal characteristics (such as handsome, intelligent, witty, or the reverse), whereas our social identity is supposed to consist of the groups with which we identify (American, white, male, psychologist, etc). An extensive body of research shows that we can easily be led to categorize ourselves as members of a group and that when this group membership is made salient we discriminate in favor of our own. However, this way of parsing our identity as individual or social misses the very essence of personal identity or *ubuntu*, which lies in our relationships with others rather than in either our individual characteristics or the groups to which we belong.

Thinking that we are individual selves may lead conservatives to rely on the choices provided by a putatively free market and ignore the need for regulation and corporate responsibility. Confusing our personal identity with the groups to which we belong may lead liberals to the presumption of a common group welfare to which all should conform when, in fact, what is good for some is often not good for others, and may lead us to overly depend on state power to secure human rights. Paradoxically, the fear of loss of self may lead authoritarians from either right or left to abandon their individuality by submitting to a leader or movement with whom they identify.

If this view is correct real security does not lie in either independence or group membership, but in the relationships that constitute a caring community. The contrast between the favoritism that occurs when we identify ourselves in terms of group membership and the caring relationships that form community recalls Kosterman and Feshbach's (1989) distinction between nationalistic attitudes (characterized by feelings of superiority and privilege) and patriotism (with its love and attachment for place and people). Congruently, rather than seeing common humanity in terms of our belonging to a common human group that is different from space aliens or better than other animals, we may see our humanity in terms of our relating to others in the human community. Our common humanity depends on the extent to which we are aware of our interdependence. Yet the commonness of this identity is obscured whenever harm leads our fear to dominate our love and to suffer the splits that hinder our working together to achieve a nonkilling culture of peace.

Three Psychological Splits that Hinder Our Work

Three basic tensions hinder our ability to construct a nonkilling culture: The tension between authority and liberty, between peace and justice, and

between real and ideal.⁷ When caring dominates fear the tension between these poles can be productively managed, but when fear dominates caring the peace movement is paralyzed by splits.

I. Authority and organization vs. rebellious anger and creative networking. Those who favor the sort of organizational unity and national political agenda that could address the structural problems of society are often opposed by those who distrust organization, believe that many flowers should freely bloom and that peace depends on rebellion, personal relations and community. It seems obvious that we need *both* governmental organization and free community. Yet any such integration is prevented when splits prevent the supporters of each view to appreciate what the other is trying to accomplish. This tension seems related to emotional predilections for authority and rebellion, and to contemporary gender dynamics. Those who believe that organization is necessary have a basic trust in authority (which they see as quite different from dominance) and are impatient with the perceived inefficiency of peace groups who insist that peace will happen from individual change, emerge from spontaneous protest, and happen without hierarchical organization. They wonder if those opposed to organization really think that military-industrial complex will collapse from its own weight and the supporters of peace simply need to encourage the blooming of many flowers. Those who insist that it is unnecessary to unify believe that unity implies hierarchical organization and will prevent the spontaneity and true democracy needed for peace. Since they see organization as involving dominance they don't want to believe that organization is necessary. They ask if those who believe that the movement must unify really believe that organization can occur without dominance.

There is a related disagreement within the peace movement about how peace can best be achieved. Reformers believe in the basic benevolence of liberal authority, endorse the need for state power, and advocate better laws and strengthening world government. They are opposed by revolutionaries who distrust authority and want a new political power or who favor a focus on community and the sort of networking between communi-

⁷ I do not mean to imply that this is the only way to characterize the basic conflicts that divide us. See Lederach (1997) for a related but somewhat different description. However, it is these conflicts between caring, well-meaning folk, that hinder the construction of ways to deal with the hate, greed and ignorance, of those who are less caring, and the rigidity of dysfunctional groups.

ties advocated by Gandhi.⁸ The latter believe that it is foolish to rely on state structures because these are based on power and inevitably susceptible to corruption, and they distrust global institutions, fearing that a world government could simply add another layer of bureaucracy that will frustrate local action to solve local problems. The reformers can work to improve government but tend to ignore the danger of being co-opted by those in power. The revolutionaries can support social forums that seek to voice the needs of those without power, but their distrust of authority hinders them from creating an executive group with the power to implement programs that can address those needs.⁹

The ambivalence towards authority and organization in the peace movement is sometimes manifested in a reluctance to openly discuss the management of power, and is an important stress line in the peace movement that makes it vulnerable to governmental co-option. We need to recognize and discuss the tension so that peace advocates have a common language to discuss the management of power differentials and the difference between domination and authority. If issues of power are squarely faced and temperamental differences are accepted with humor, the peace movement may be able to reconcile the need for both centralized authority and decentralized responsibility. Those who want organization need to realize the need for structures that will enable those who are marginalized to have access to power. Those who are uncomfortable with power need to realize that people who accept responsibility need to have the power to fulfill that responsibility.¹⁰

⁸ They may also argue that working through NGO's can be more reformist than working with political parties because many NGO's work with governments and hence become close to power.

⁹ To some extent these differences may be understood in the terms of some of the defenses revealed by psychoanalysis. Thus, Rogow (1974) points out that conservatives sometimes contain their aggression by identifying with authority while liberals sometimes harbor unconscious aggressive impulses towards authority, a dynamic that may lead them to be more adept at criticism and resistance than governing. Or we may think of the disagreement as related to the tension discussed by Elise Boulding (1992) when she writes about the tension between the passion for a peaceful and just order and the longing for the "spontaneous untidy, abundance of nature."

¹⁰ Those who are more trusting of authority may remind their fellows of the need for coordination between communities and the necessity for some system of government in order to achieve just solutions for the intergroup conflicts. Certainly, even as we attempt to build small peaceful communities, we must live in a wider society, are subjected to the impositions of state government, and must be mindful of maintaining the

2. The tension between those focused on harmonious peace and the development of compassion vs. those focused on justice and the direction of rage against injustice. This is a deep psychological conflict within the peace movement that must be addressed if it is to have the unity needed to meet the challenges posed by the politics of nationalism and the danger of co-optation. Many people who are focused on peace tend to work from the inside out; that is, they prioritize transforming the human heart so it is more compassionate, and they are more comfortable with reconciliation with opponents than confrontation with enemies. By contrast, many who are focused on justice want to change oppressive institutions and remove those in power who are opposed to change. They are more comfortable with rage and the perception of “enemies”. Those committed to peace are often reluctant to engage in what appears to be an aggressive confrontation with people who use power to dominate and may not be comfortable with justice seekers who want to work on changing societal structures and believe in the necessity of engaging in an aggressive (though nonviolent) confrontation with those in power. Yet changing societal structures requires an assertive energy that can confront politicians, clergy, and talk show hosts who seem unaware of those who desire justice and peace. Conversely, those committed to justice are often unaware of the needs of those with whom they are in conflict, and how their insistence on justice and inclusion may obscure possibilities of reconciliation and result in the exclusion of those with less tolerant ideologies.

The disagreement as to whether the goal should be more about peace or more about justice contributes to a fear to challenge American national-

structural factors important in the use of state nonviolence. These include both political factors (such as an adequate division of power within a government, and the separation of the military from politics and industry) and factors crucial in the building of civil society (such as the presence of civic groups that include people from different ethnicities and religions). Thus, if our aim is not simply how to better become a peacemaking community within a violence prone society but also how to transform this culture of violence into a culture of peace, we must unite to transform the bureaucracy by obtaining a Department of Peace. Those of less trusting or more rebellious natures may remind their comrades that the way such a department is governed must illustrate how power may be used to create rather than dominate, and they may insist that the Office of Peace Education and Training should consider nonhierarchical ways to manage power. They may object to compromises that are politically expedient but damage long-term goals. And to the extent they are convinced that authority can be exercised in ways that are caring rather than dominating, they may be willing to harness rebellious energy for the work of creating a caring authority.

ism. Persons such as Gandhi and King managed to resolve the conflict between compassion and aggression by committing themselves to nonviolent action. They held to the idea of insisting on change without considering their adversaries to be evil. It seems clear that we need to promote the discipline and training this requires.¹¹

This disagreement may be related to the difference between persons who prioritize harmony and cooperative community building and those who are comfortable with conflict and competition for excellence. Like-

¹¹ Whenever the proponents of peace begin to raise an effective challenge to our current culture of war, they are faced with the aggressive opposition of those who see their proposals as a threat to American power and nationalism. Advocates of peace tend to either demonize this opposition as the enemy or surrender and withdraw rather than to struggle with the opposition to create a new human identity. There is a real conflict between people who are seriously committed to establishing a global culture of peace and those whose main preoccupation is the maintenance of U.S. superiority. The latter are afraid that a focus on peace will inevitably compromise American power and weaken American security. Peace is suspect because it is seen as the opposite of the strength necessary for aggressive competition. It is equated with idealism and a misplaced reliance on a morality of love and brotherhood that may work within one's group but that leads to weakness and an appeasement with outside powers. Given this way of thinking, any acknowledgment that the nation may have some problems is seen as close to surrender.

To some extent these concerns can be addressed with public education about how peace can be attained. In positioning themselves to be elected, politicians are well aware of the public's susceptibility to fear and desire for security. Peace education can convincingly show the public that international cooperation is safer and less expensive than national power. For example, keeping weapons out of space provides more security and is less expensive than U.S. domination of space. This education must provide concrete images of how peace can be structured in ways that prevent war. People have an image of war; they are aware that war costs money. However, they tend to think of peace as the absence of war and thus think that it has no cost. Public peace education must lead people to realize that one must *build* peace and that this requires money as well, even though this expenditure is a fraction of what is spent on military defense.

However, those involved in the peace movement need to realize that they are in a conflict that involves a disagreement about American identity and the nature of political reality. For example, the idea of creating a Department of Peace raises disturbing issues that are morally equivalent to past conflicts about colonization and slavery and cannot be won by compromises. Of course, a Department of Peace is not really in opposition to adequate defense. However, it *is* in opposition to the idea that the United States must focus on maintaining its status as the number one military power in the world. This conflict needs to be aggressively debated.

wise, some cultures (such as the Chinese) define peace as harmony and prefer to mask conflict while others (such as our own) see conflict as inevitable and define peace in terms of contracts. Many in the peace movement prefer cooperative enterprises. Yet there are always competing views, and finding productive, relatively nonbruising, ways of dealing with these differences is necessary both for the peace movement and the government. In the former, we must deal with differences of opinion about what is most needed for peace. In the latter, entrenched interests struggle to maintain power and real conflicts of interest must be carefully considered. If such conflicts are faced they may be solved with skillful negotiation or mediation. However, this requires acknowledgment and skills that need to be developed within the peace and justice community.¹²

3. The conflict between the ideal and the real. The gulf between the ideal world we desire and the reality of our current condition may lead to a despair that prevents action or to a flight into fantasy or an abandonment of the ideal. Some assume the ideal, pretend that the system is good so that justice actually exists in this world (or will be awarded in heaven) and one need not act or idealistically act without considering the realities of power. Conversely,

¹² We need to find ways to deal with the tension of conflict and ways to make it more enjoyable for those who find it uncomfortable. Some find conflict exciting and value competition for its usefulness in encouraging excellence and its role in preventing corruption. However, those who prefer cooperation may find conflict inherently disturbing and be concerned about its production of winners and losers. Of course, dangers are inherent in both temperaments. Those who find conflict enjoyable or creative are sometimes inclined to insist that their views are the only correct ones, and they may overlook how competition can breed a factionalism that prevents solutions that would benefit the whole. Those who value harmony may neglect important differences and be overly inclined to compromise. If bureaucratic conflicts of interests are to be addressed, those who value harmony must be willing to face conflict and work with those who value conflict (and help them with the egoism and self-righteousness that may accompany fighting for valued positions). If the two temperaments work together they can develop an analysis of how responsibility should be divided between the existing departments of government and a new Department of Peace. Research on this issue could be initiated by conducting a series of interviews with civil servants from different departments. The results could then be included in a request for the Friends Committee on National Legislation to sponsor the sort of problem solving workshop that has proved so useful in the mediation of international conflicts. Such workshops, conducted with members of different departments who do not have immediate responsibility for maintaining bureaucratic power, can establish an underlying climate of cooperation that may help attain rational divisions of responsibility.

others base all pragmatic action on the realities of power and abandon ideals. Moral action requires us to maintain the tension between ideal and real. This is aided when we use our moral imagination to maintain a vision such as that provided by a culture of peace, and by the cultivation of spiritual strength. When the tension is not tolerated it results in a split. On the one hand, this split is illustrated by those “realists” who keep insisting on the need to maintain power without regard for the ideals of peace and justice. They dismiss these ideals as illusory, avoid looking at the data that shows how often power fails to protect, and even fail to consider how aspects of a culture of peace can contribute to “soft” power. We need to encourage such “realists” to seriously consider what they really want and to think more broadly about how it might be achieved. On the other hand, the split is illustrated by an insistence on perfection and the disdain which some activists have for working with corporations or governments. Rather than seriously considering the problem of how co-optation can be avoided and ideals can be maintained, some prefer to maintain their purity by simply rejecting working with corporations or the government. There are instances where corporate support is mere window dressing that distracts attention from the real issues that are involved. However, there are other instances where corporate support has enabled important programs to continue. Likewise, some governmental initiatives have obstructed but others have furthered a culture of peace. It seems to me that we should be studying examples of these failures and successes and the dynamics of how co-optation occurs and can be avoided, rather than simply rejecting working with corporations or government.

If we face each of these three psychological conflicts and encourage our caring for one another to dominate our fear we will be able to appreciate the different roles required by social movements (Moyer, McAllister, Finley and Soifer, 2001).¹³ Rather than derogating those playing a role that is different from our own we can support those who are playing a role well and challenge those we think are playing it poorly. If we realize that it is fear that leads ourselves and others to rigidly cling to a dogmatic position we may be able to foster the caring that is essential.

Unifying the movements for peace and justice requires the integration of many different primary concerns. Some want to pragmatically persuade congress to take small but necessary steps to advance peace, others want to work towards underlying institutional changes, and still others on grass

¹³ When caring dominates it is possible to discuss the conflicts among those competing for resources and attention, and the differing concerns of those with and without money.

route's organizing for a new political party. Some focus on getting soldiers back from Afghanistan, preventing war with Iran, closing the School of the Americas, or ending nuclear proliferation. Others on ending domestic abuse or gay bashing, or on stopping environmental degradation, getting health care, or achieving more economic or racial justice. Integrating these concerns require us to cope with the inevitable struggles for leadership that often involve big egos. They requires us to cope with the negative energy of those who want to use violence, the differences we have addressed between people on the right and left of the political spectrum, and the self righteousness with which they reify their differences rather than work together. Further, the movement towards a nonviolent society must cope with the fact that any structures it seeks to establish will require a political will stronger than the politics of nationalism, will involve bureaucratic conflicts, and will require funding that leaves it vulnerable to co-option.

How may we achieve the kind of unification that will give us the power needed to establish peace with justice? I believe that if we face the conflicts that have been described we will be able to achieve the sort of organizing that is needed to build a nonkilling society. Such organization must have its base in the community groups that furnish fellowship and provide spontaneous energy for peace. However, it also requires a political organization that uses a positive agenda to promote governmental peace and justice. Finally, it needs a new sort of civic organization with a small centralized office that is devoted to building a culture of peace. I want to address each of these components in turn: The cultivation of community, the building of a political organization for peace, and the formation of a new sort of civic organization.

Attaining a Culture of Peace by Cultivating Community

Our personal wellbeing depends on the integrity of our local communities (Hearn, 1997), and our view of human nature suggests that building a culture of peace requires us to cultivate communities of people who care for one another and are related to a global community. Although it is not sufficient, grassroots community building is necessary, and I will discuss it before addressing the political organization that will also be required. Our morale may be sustained by the realization of how many caring people are involved in building a peaceful culture and it is theoretically important to know how much such building already exists. Hence, before considering some factors needed for the cultivation of more community we shall attempt to assess the extent to which it already exists.

Assessing How Much Is Happening

In each of our states we have dozens of small local peace groups. In addition to these local groups there are national and international groups or movements such as WRL (War Resisters League), FOR (Fellowship of Reconciliation), FCNL (Friends Committee for National Legislation), WILPF (Women's International League for Peace and Freedom), Vets for Peace, Citizens for Global Solutions, Council for a Livable World, Peace Action, and so forth. There are professional groups such as psychologists, physicians, educators, and lawyers for social responsibility, and groups begun by committed individuals (such as Human dignity and humiliation studies, and World march for peace and justice). Yet there is no list of these or estimations of their memberships.¹⁴ Finally, we have networks and nonmembership lobby groups such as Moveon, True Majority, Peacemajority, Democracyinaction, Truthout, etc. and coalitions of groups such as United for Peace and Justice. Although it is not clear how the people on these sites should be counted or how much overlap is involved, it might be fruitful to begin estimating the growth or decline of activity on such sites in different nations.¹⁵

Perhaps the best estimate of the extent of what is happening in the movement for peace and justice is the one made by Paul Hawken and re-

¹⁴ In this regard, how might one create criteria for what to include? Should groups such as Amnesty International, Doctors without Borders, Common Cause, Human Rights Watch, and the Red Cross be included?

¹⁵ The large number of people interested in peace and justice suggests business possibilities and there is now a new peace business venture that is establishing a web site for peace news (www.pwpp.org), that will feature unknown persons who are doing wonderful things for peace—starting barefoot schools, defending human rights, beginning international peace youth groups, volunteering in poverty stricken areas, etc. The founders dream of an online peace newspaper with continually updated news and photos about actions for peace and justice. How many people might read such a news-source? The business plan for this venture initially estimated demand on the basis of survey data asking individuals to report whether they would be more likely to look at an internet story with a violent or positive headline. The bad news is that 80% of American's report that they would be more likely to go to the violent headline. The good news is that leaves millions of Americans who are likely to go to a site featuring positive headline. The PWPP business plan is projecting that by the end of 2012 there will have 17,000,000 "US People" collectively visiting the sites of its projected 862 media partners—reaching approximately half of its target market, of 34,000,000 within the U.S.; a market they define as "those citizens desiring widespread acceptance of UN resolutions on building cultures of peace."

ported in *Blessed Unrest*. Hawken's (2007: 18) observes that a broad social movement is occurring that is based on localized needs and ideas rather than ideology.¹⁶ Seeing the connection between environmental concerns and the human rights of indigenous groups he began collecting groups working on environmental sustainability and human rights and has established a wonderful model for a citizen's peace network at wiserearth.org. In the Wikipedia tradition, anyone may post news of their peace/justice group on this site. The Wiserearth site currently lists well over a hundred thousand NGO's and Hawkins estimates he knows of a million such NGO's and that there are probably seven million in existence globally. It is interesting to note that the categories used by the wiserearth site can easily be related to the bases for a culture of peace. In Table one I give an example of a few of the most obvious NGO's, and the names of the most relevant categories used by Hawken's together with the number of NGO's listed in these selected categories.

Table 1. Bases of Culture of Peace, Some NGO's,
Hawken's Categories, and Number of Sites.

- (1) Education (especially, education for the peaceful resolution of conflict):
Educators for social Responsibility, War Resistors League
[Environmental education, 11,789 sites]
- (2) Sustainable development (viewed as involving the eradication of poverty,
reduction of inequalities, and environmental sustainability):
Bread for the World, Friends of the Earth
[Sustainable communities 8,999 sites, Poverty alleviation, 9,240 sites]
- (3) Human rights:
Amnesty international, Human Rights Watch, International Peace Brigade
[Human rights 8,052 sites]
- (4) Gender equality: National Organization of Women
[Gender equality, 4,836 sites]
- (5) Democratic participation: Common Cause
[Democratic participation, 3,448 sites]
- (6) Understanding, tolerance, and solidarity (among peoples, vulnerable groups,
and migrants within the nation, and among nations):
Fellowship of Reconciliation [Not categorized as such]
- (7) Participatory communication and the free flow of information: Freedom
House, Committee to Protect Journalists, Reporters without Borders
[Media and communication, 1,575 sites]

¹⁶ Hawken (2007:16) observes "Ideas question and liberate, while ideologies justify and dictate.

- (8) International peace and security (including disarmament and various positive initiatives): Peace Alliance, FCNL, Vets for Peace
[Peace and peace making, 7,916 sites]

Actually, all the categories used in the wiserearth site probably should be related to the culture of peace categories. However, those involved in Wiserearth and those involved in Culture of Peace do not appear to know of each other! And in the fact lies a hint of the problem. Given the fact that we probably have more individuals quietly working voluntarily for peace than personnel getting paid to serve in the military, and far more local peace groups than militia, one might think that the peace movement could substantially impact foreign policy. But there is one crucial difference, the military is organized, the peace movement is not.¹⁷

On the one hand, Hawkins has hope in this blessed, unorganized unrest. He offers an organic metaphor, suggesting that we humans are like an organic immune system that is mobilizing against the threat to our earth. However, unlike our immune system, this wonderful mix is almost completely without coordination and organization. Participants lack awareness of the important work that others are doing, NGO's compete for funds rather than coordinate programs. Wonderful endeavors, work that deserves to be well known is unknown, organizations are continually strapped for funds, and most groups are so involved in trying to combat violence and injustice that they are not very involved in the community building that is required.

Cultivating Local and Global Community

The building of what Gandhi characterized as his constructive program is a time consuming task.¹⁸ Nonviolent activists such as Randy Kehler em-

¹⁷ Further, to be successful foreign aid requires organization and one reason the federal government gives aid money to the military is because the military is sufficiently organized to deliver the aid.

¹⁸ Joanne Sheehan, one of the organizers for the War Resisters League, has noted the differences between organizing grassroots resistance movements and developing NGO's. Community building requires continual organizational work to keep programs going. One problem for NGO's is that they may begin organizing around a good goal but then need staff that require funding. Hence, the organization can wind up employing its own people and lose touch with the grassroots work that needs to be done. Further, although some communities such as Burlington, Ithaca, and Minneapolis have a culture that supports community work, others suffer from a lack of the ingredients that Gardiner (1992) notes are needed for community.

phasize the need for the sort of energy that will sustain a movement, something that is close to people's everyday concerns. In the absence of a draft or a widespread depression this sort of energy can only be met by the sustained relationships inherent in local community groups and building these local communities and relating them to a sense of global community may require the development of a new human narrative.

The Western narrative that is most widely accepted today by both conservatives and liberals is the narrative of democratic liberalism with its emphasis on individual freedom. However, if freedom is conceived individualistically Hearn (1997) points out that it becomes conceived in terms of the choices involved in a free market economy or in terms of individual rights that must be guaranteed by states. This democratic liberalism neglects the idea of community as the mutual obligations and the norms of peace and justice that arise when people care about one another. Yet what we need is a narrative of community, and one that relates local to global community.

Such a narrative must give a sense of what is good and bad, and it is difficult to imagine a global community that does not share a common morality. This morality must encourage all humans to respect and care for one another, must involve a world cultural agreement on who we humans are, a world "religion" in which people from different faith communities have tolerance and support one another in their quest to overcome fear. We may be on spaceship earth but it is either moving without purpose or it is in relationship with something much greater than we can easily conceive. Maalouf (2000) acknowledges the need for spirituality and a transcendence that gives a meaning to our lives, but insists that our need to belong, to have an identity, cannot be met by religion. He argues that belonging to a religion involves an exclusivity that may be contrasted with language—where speaking one language in no way prohibits speaking others. Since religion (as opposed to spirituality) involves exclusion, he argues that it cannot be used in the formation of an inclusive human community.

However, Spirit itself may be universal amongst human beings and a global community is going to require a rapprochement among the world's many faith communities, a way to move beyond the intolerance of religious dogmas. Macmurray's analysis suggests a difference between religion that is illusory and that is real. Illusory religion seeks to reassure that what is feared will not happen. It will either be pragmatically focused on magical practices or prayer that will help a person to gain power on earth, or idealistically focused on what will happen in some future heaven. By contrast, real religion allows that what is feared may well happen but insists that one

need not be afraid. It insists on a fundamental Goodness that can be relied upon, and deals with the tension between real and ideal by taking as a goal the making of heaven (the ideal) on this (real) earth. This sort of faith may be found in all religions (as well as in many putative atheists).

Besides a common communal narrative we need a consensus about what to do about power and its role in the maintenance of order. It seems to me that many liberals are uncomfortable with power because it is so often associated with dominance and status differences. Some tend to ignore the fact that people who accept responsibility need to have the power to fulfill that responsibility. When Maslow and Benedict (Maslow, 1977) investigated the difference between happy and unhappy societies they discovered that the crucial difference did not lie in the type of staple crop, presence or absence of chiefs, or type of marriage arrangement, etc. It lay in how power was distributed. All societies appear to have some people who are particularly concerned about gaining power and prestige. However, the happy societies were arranged with a synchronicity. Power and prestige were acquired in the process of helping others. Conversely, the beliefs and institutions in unhappy societies led people to acquire power and prestige by hurting others. We can try and give power *to* people but most people do not want the power to govern, they are interested in other pursuits. What most want is power *for* people. Rather than trying to either avoid or distribute power, I believe we should foster arrangements that ensure that political and corporate power is gained and maintained by those persons who help others.

Although peace is fundamentally a matter of personal relationships and the quality of these relationships must always be central in our thinking so that love rather than fear and dominance is primary, these personal actions occur in a social (behavioral) environment that affects what is possible by providing opportunities for employment, information, learning, volunteer activities, communication, and organizing. Individual attitudes, values, and ways of behaving are affected by community norms and obligations, cultural ways of knowing, societal institutions, and form of government. Hence, social movements must affect institutions if they are going to affect permanent change and we will only obtain more peace and justice when we unite in building nongovernmental, business, and governmental structures that will promote peace and justice. Yet Hawkin's (2007, p.19) observes "...as yet there has been no coming together of organizations in a united front that counter the massive scale and power of the global corporations and lobby-

ists that protect the status quo.” We must build the political organization that promotes a culture of peace.¹⁹

Building the Political Organization for Peace

We have many separate peace organizations that are doing important work. We have FOR, WILPF, WRL, FCNL, Council for a Livable World, Citizens for Global Solutions; we have Amnesty International, Human Rights Watch, Oxfam, etc. And until its funding disappeared we had a federation of 1,400 groups in United for Peace and Justice. Yet the peace movement has very little political power. Bill Scheuere, from Democracy in action, asks us to do a thought experiment. He asks if the public can name a group that represents the interests of the elderly (Yes, the ARRP-with 38 million members); can they name a group that represents the interests of gun owners (Yes, the NRA, with 4.3 million members.) Do these groups have clout with politicians, the media and the public? Can the public name a group that represents the peace movement? (No). Larry Wittner, argues that until we have a powerful national organization with cohesion, strength and programmatic direction, we will not be able to effectively challenge the masters of war. Unrest and protest, individual actions and community building are necessary but not sufficient; we need organization.

Of course, the idea that the peace movement needs more organization is an anathema to those liberals whose fear has led to a split between authority and liberty. Those who distrust authority will view the very idea of organization in terms of male dominance hierarchies, leaders far removed from the needs of local groups, and being told what to do. “Build an organization? We will lose spontaneity; we will be told what to do; anyway it will be impossible to achieve; and anyway it would be run by white guys who won’t address the real problems of racism and poverty; and anyway to gain power it must work with the establishment so it will be co-opted.” Why is it that these sorts of

¹⁹ Our need for a global human community must confront some basic problems: 1. We are currently in a global economic system that is based on capitalistic expansion and consumerism. Keenes demonstrated that such a system requires a way to handle its over-production, and the current way of doing this is by the constant waste involved in military expenditures. 2. Our traditional masculine identity is often based on a warrior rather than a builder identity. 3. We humans don’t seem to know how to deal with tribalism without imposing a system of domination. 4. We have issues such as the control of nuclear weapons, the small arms trade, and genocide that require international solutions.

objections spring to mind and dominate thinking so that the positive possibilities enabled by organization are completely forgotten?

I do not mean to dismiss the objections; there are real issues. However, rather than present these issues in an oppositional way that defeats the idea of organization, it seems to me that they can be presented as challenges that should be addressed. Doing so requires dealing with the conflict between authority and spontaneity. It also requires dealing with the tension between peace and justice. A narrow focus on peace overlooks central structural problems including racism, class issues, and institutionalized power. However, this tension is not really addressed when we have a loose federation of separate organizations. We need a central organization with a positive agenda that unites peace and justice and deals with the conflicts between different issues and interest groups and the dangers of co-optation that result when the conflict between the ideal and the real is not addressed. There have been attempts to achieve such organization by creating a federation of groups. For example, United for Peace and Justice succeeded in creating a loose federation of many groups that agreed on the formulation of a positive unifying statement. However, it immediately became focused on a negative anti war agenda, and was unable to sustain the funding needed to maintain a central office. A nonkilling psychology needs a way to sustain a positive agenda, and it needs a way to influence the governmental bureaucracy and not simply the executive and congress.

The Need for a Positive Agenda

Most people who want peace can probably agree that we should have publicly funded elections, be spending far less money on the military and far more on developmental aid, gain control over corporation charters, have presidential candidates with strong peace platforms, and lead political leaders from both parties to support a Department of Peace. Yet none of this is happening and the peace movement cannot seem to unify around such goals. Why is it that it seems psychologically easier to organize around negative than positive goals? It is worth noting that during the early 1980s, when the bill for a peace academy was being debated, the peace movement was largely focused on opposing nuclear weapons. It aimed at achieving a nuclear freeze rather than attaining a Department of Peace or funding a Peace Academy. In fact, although it would seem that the goals could have been combined, works on peace movements during this period do not even mention the movement to attain a peace academy, the movement that eventually resulted in a watered down Institute for Peace. Yet there is no reason why demonstrations

against war and injustice cannot include advocacy *for* a Department of Peace. Indeed, it seems evident that this would strengthen the cause of attaining a just peace. Why is it easier to be against tyranny than to be for peace and justice, easier to mobilize against than for? As noted, when we imagine building something up we seem to imagine more barriers and objections than when we imagine bringing something down.²⁰

I believe it is crucial for us to encourage groups to have positive goals and energy rather than simply be against the establishment, war, and injustice. The distinction involves more than simply being pro peace vs. anti war. Groups that are pro peace and justice may work against a particular war or injustice. Even a group whose organizational goal is primarily anti—such as the America’s Watch goal of closing down the School of the Americas—has a fundamentally nonviolent, pro justice message that suggests a positive goal. On the other hand, United for Peace and Justice has a stirring positive statement that called for “...new foreign and domestic policies based on the peaceful resolution of disputes amongst states; respect for national sovereignty, international law, and the Universal Declaration of Human Rights; the defense and extension of basic democratic freedoms to all; social and economic justice; and the use of public spending to meet human and environmental needs.”²¹ However, in

²⁰ Back when Bush was president the Maine Vets for Peace organized a march at the Bush summer residence to impeach him for violating the constitution. Any activity to call attention to misdeeds and apply a bit of pressure for peace and justice seemed worthwhile to me; it was fun to march and we got a bit of national publicity. However, I did not think that we were really going to succeed in getting impeachment. Yet, I have a bright grandson who was on the march and it became clear to me that he, and many who were marching, actually thought we had a chance of getting an impeachment. The group attempting to close down the School of the Americas has organized thousands of Americans for yearly nonviolent protests in Georgia. They eventually managed to get the government to change the name of the school but have not yet succeeded in shutting it down. Yet they continue. Their hope is still alive. We somehow do not think so negatively when we are opposed to something. What is going on?

²¹ The statement continues: “We come together to turn the tide, to overwhelm war with peace, and oppression with justice. We hold that sovereign nations have the right to determine their own future, free from the threat of “pre-emptive attacks” and “regime change,” military occupation, and outside control of their economic resources. We call for new foreign and domestic policies based on the peaceful resolution of disputes amongst states; respect for national sovereignty, international law, and the Universal Declaration of Human Rights; the defense and extension of basic democratic freedoms to all; social and economic justice; and the use of public spending to meet human and environmental needs. We seek to build a broad mass movement for peace

practice it unified around negative messages—anti troops in Iraq, anti troops in Afghanistan, anti war funding, and anti nuclear weapons. It emphasizes the negative aspects of the status quo rather than offering a positive alternative.²² Thus, it is seen as leftist and easily dismissed by centralists.

Delineating the difference between positive and negative is extremely important because the pursuit of justice and human rights often calls for attention to all sorts of “negative” facts and the peace movement needs to include groups that argue for the reduction of poverty, ending prejudice against people of color, inner-city needs, and transgender rights. The peace movement is often accused of being a White middle class movement and there is much truth to this. Middle class Whites are much more likely to attend an anti nuclear arms rally in a nice park than to march for funds in an inner city neighborhood; there is often a tension between activism and middle class norms; and there is an issue of who has political power and status within the movement organization.²³ Hence, the positive goals of the peace movement need to include the welfare of workers and inner city

and justice composed of all who are threatened by the new war program. We envision UFPJ as a movement-building coalition that coordinates and supports the work of existing groups and builds linkages and solidarity where none exist. We will link the wars abroad with the assaults at home, and U.S. militarism to the corporate economic interests it serves. We will work to make the peace movement a strong ally to movements for social and economic justice in the U.S. and abroad. We will pay special attention in all aspects of our work to the inclusion and leadership of constituencies bearing the brunt of the war’s impact at home, such as people of color, youth, women, and workers. We will be pro-active in addressing internal power dynamics within our movement, especially regarding issues of race, class, gender, religion, sexual orientation or gender identity, nationality, disability, cultural heritage, or ethnicity. We will work for peace and justice through nonviolent means. We will strive to embody in our day-to-day work the values we espouse and the world we seek to build.”

²² The mission statement notes that UFPJ is “... opposed to the “pre-emptive” wars of aggression waged by the Bush administration; we reject its drive to expand U.S. control over other nations and strip us of our rights at home under the cover of fighting terrorism and spreading democracy; we say NO to its use of war and racism to concentrate power in the hands of the few, at home and abroad.”

²³ In an attempt to achieve diversity, the coalition of groups in United for Peace and Justice established a requirement that its steering committee consist of at least 50% women, 50% persons of color, 20% of persons under age 25, and 15% persons who identified as lesbian, gay or transsexual. Unfortunately, such a composition neglects issues of class. Further, it appears to result in a selection of persons who do not represent the composition of most peace and justice groups.

youth, and its organization needs to include the voices of labor, the poor, and those who suffer from the prejudices in our society.

How can peaceworkers overcome the split between positive ideals and negative facts? Activists who are committed to community outreach, such as Smucker (2007) argue that activists should use informative narratives that involve a love of country rather than inflicting analysis that may be accurate but off putting, self righteous, or anti-patriotic. Analysis must be accurate, and Galtung's description of imperialism is an important tool for our understanding of the culture of war that we must confront. However, referring to "U.S. imperialism" is bound to be misunderstood by many U.S. citizens. Scott Ritter suggests that the Center of Gravity that best links activists to our own country is the constitution and its proclamation that we have a government that is by the people and that our will should be expressed through congress. Most Americans believe in a rule of law and we can link the nation to the UN via treaty obligations.²⁴

The organizational issue that most hinders the formation of a positive agenda involves the limited energy and funding that is currently available. Those working to mobilize communities must focus on local concerns and are reluctant to expend too much energy to get their constituents involved in working with national organizations that are attempting to influence the numerous federal laws that would eventually be of benefit to their constituents. Larger more abstract issues that are yet another step away from immediate concerns, issues such as corporate reform, or economic conversion are not even addressed.²⁵ The necessity of funding raises yet another important challenge. If we are to build something other than a business or another NGO we must secure funding

²⁴We need protest movements and anti war protests and Saul Alinsky tactics usually involve a good deal of independent enthusiastic energy that often results in behavior that is guaranteed to put off conservatives. But protests against the establishment do not have to be anti patriotic; they can be calls to the patriotism of Woody Guthrie, that "this land is my land; this land is your land." The practice of nonviolent struggle may be used to support the opportunity of constituents to speak with representatives and senators about ways to insure peace. Certainly, competent representation requires knowing what constituents believe, and a respectful demand for access to representatives should have wide public support.

²⁵ Why should a local activist be interested in corporate reform as much as in the building of local economies?

and that means dealing with either corporations²⁶ or the government and risking co-option. Taking money may contribute to an illusion that we are doing something good when we are leaving intact the very institutions that are making poverty and violence inevitable. I want to note why we need to incur this risk.

Influencing the Governmental Bureaucracy

We are citizens of a nation that has departments of state and “defense” to look out for our national security (narrowly defined). However, we do not have a department of peace to promote peace education, support campaigns of nonviolent action, help coordinate the work of different NGO’s, and look after the welfare of those in other nations and the human security that is good for our earth as a whole (de Rivera, 2007). If our nation is to eventually be a part of a larger system of world government it must begin to cultivate a global perspective within its own governmental bureaucracy.²⁷ Indeed, this is already occurring, often detrimentally, under the influence of the World Bank, the WTO, and the lobbying of transnational corporations.

Funding for peace must come from somewhere and if not from business corporations or nonprofits (which are dependent on civil society donors) funding must come from our government. Our government is funded by taxes. Fifty percent of our discretionary tax dollars goes to the military. Why not have some go to peace education, research, and jobs? Those working for peace are so used to poverty that they forget that congressional representatives are socialized to get money for special interests. I have found that

²⁶ A number of corporations are beginning to recognizing the need for a good local environment and supporting work that recognizes the potential of inner city youth, such as the work done by The Institute for the Study and Practice of Nonviolence in Providence.

²⁷ I understand and support the behavior of organizations such as the FCNL who work for legislation that attempts to achieve a bit more peace and justice by working with the current power structure. However, the current bureaucratic structure has not worked to implement the suggestions of the Blix Commission to prevent nuclear proliferation; or for the International Criminal Court or the suggestions for a New International Economic Order; and it completely failed to support the nonviolence movement in Kosovo. It seems clear that we also need to begin transforming the structure our current system of government so that it works in the general interest of overall peace and justice. Some reject working with the government because of its problems and impurity, yet continue to support it with their tax money. They overlook the fact that there are many people in government who do their best to work for peace and justice in the current system. These include at least 70 congressional representatives, a few senators, and numerous workers in the civil service.

some representatives who do not understand their constituent's interest in peace, do understand that their constituents are interest in getting money for their university's peace programs.

A fair number of peace activists, are opposed to having anything to do with the government. Caught in the split between authority and spontaneity, they only see the government as interested in a narrow gage foreign policy that is devoted to protecting U.S. corporate power and in the grips of the military industrial media complex. They have good reason to suspect that any peace organization that relies on the government for money is apt to be co-opted. Hence, they can cooperate in advocacy to limit U.S power, but hold back from endorsing a positive program to create a part of the bureaucracy that would work for peace. They overlook the governmental programs that run social security and Medicare, the park service, the environmental protection agency, the enforcement of labor laws, and the hundreds of other things which we ask government to do and which it seems to do reasonably well. They are afraid that working with a governmental agency such as the U.S. Institute of Peace will prevent an honest critique of foreign policy, deflect energy that is needed elsewhere and involve us in something that lacks purity. Further, though this is not stated, it seems to me that many do not want to risk hoping that we might actually be able to achieve peace. Those who do not hope can not be let down.

Although both the cultivation of community and political organization are crucial, a third sort of civic organization is essential for furthering a nonkilling society. For to some extent, the fabrication of a new system requires an analysis of what is needed and the building of a new civic consensus, and the creation of a new culture requires transcending local community norms and political interests.

An Organization to Construct a Culture of Peace

Many of our current peace organizations have a central Washington office that is involved in lobbying work. Most are sustained by individual memberships, with a few significant donors and modest grants. Peace Action, our largest lobbying group, has a center, an individual membership, and over a hundred local chapters and affiliates. The lobbying work of our peace organizations usually focuses on practical but limited solutions. For example, Peace Action mobilizes around clear problems such as controlling or abolishing nuclear weapons, getting us out of military actions, addressing the conflict in the Mid-

east. In a related vein FCNL sponsors bills to fund civilian peacebuilders, diplomatic offices, reconciliation, and UN peacekeeping and developmental work.

Groups that attempt to influence legislation must pay attention to what is possible, to timing, the emotional climate within the beltway, the public's mood, to their reputation in Washington as pragmatic, effective, and non-nonsensical. Thus, excellent lobbying groups such as FCNL and Peace Action cannot afford to spend energy and reputation on legislation that is unlikely to pass, such as the establishment of a Department of Peace, or outside of the usual peace agenda, such as working for publicly financed elections or sustainable energy. They focus on current issues that they may be pragmatically able to affect. Although success helps secure donations, the very need for success may lead to a neglect of important but difficult issues such as small arms control. The different organizations have their own memberships and although they may be able to secure some foundation money they are largely dependent on promoting their membership base by working on issues that are important to their members and related to their special identity and expertise. Thus, WRL offers nonviolent training sessions, FOR builds groups to develop mutual understanding, Witness for Peace organizes delegations to Latin America, PBI accompanies human rights workers who are under death threats, and so forth. Each group has allies and forms coalitions for joint projects but cannot merge without risking a loss of their membership base.

The above issues are all important. Yet we clearly need something in addition. It seems to me that we need to establish a center that could work with both local community groups and national lobbying offices to advance the much broader positive agenda needed for a culture of peace. Those interested in international security and abolishing nuclear weapons, are not necessarily moved by environmental sustainability and climate change, nor are the latter necessarily involved in promoting gender equality, or media reform, or addressing poverty or human rights. Yet all these issues are intimately connected and we need to encourage a central organization that is dedicated to the promotion of a culture of peace and the strengthening of our identity as global citizens.

There have been a few endeavors to encourage the development of a network to support a culture of peace. UNESCO initially supported a number of exciting programs and still maintains a culture of peace website (<http://www3.unesco.org/jycp/>), but its current support is minimal and it needs to keep funding for the site. I presume the decline in its sponsorship initially occurred when the U.S. was angered by UNESCO's support of fair economic policies and pulled out of UNESCO and am unclear if the situation

has changed enough to allow a renewal of support and how that might be encouraged. David Adams has maintained a site (<<http://www.decade-culture-of-peace.org>>) where hundreds of groups working on aspects of a culture of peace can post what they have accomplished and access the World civil society report on a decade of progress towards attaining a culture of peace, but lack of funding prevents development. And there is a site for the Culture of Peace Initiative (<<http://www.cultureofpeace.org>>), a group that is supporting individual initiatives and the observance of UN world peace day. The data from these sites suggests that the idea appeals to the public but not to any of the national or corporate interests that could provide funding.

The idea of an organization devoted to cultivating a culture of peace is probably too removed from the immediate interests and needs of most NGO's to enable an alliance that could provide funding. However, I would think that a membership organization could support a small central office that could support a web site, organize small meetings among critical players, and communicate suggestions to groups such as Peace Action, FCNL, and Move On. Although such an organization would be centralized, it need not be based in Washington, it could be based on partnerships rather than hierarchy, and its leadership could be in touch with local needs and the voices of the marginalized. Rather than having elites working together to preserve their individual interests we can imagine a community of group leaders who cooperate because they care about what each other needs.²⁸ Since such an endeavor would involve overcoming the psychological challenges to creating a nonkilling world, psychologists may want to take the lead in supporting such an endeavor.

A center to cultivate a culture of peace could foster citizen rather than consumer identity, command media attention, provide a situational analysis, support strategic goals, and implement a plan of action that uses a rhetoric focused on creating a culture of peace for our communities. Such a center could emphasize how solutions must be both local and systemic, both funnel-

²⁸ We are used to groups with different interests competing for power, attention, and money, and although we are used to hearing that groups should work cooperate for common goals we rarely hear that groups should care about what other groups need. Why is this? Cannot networks be organized so that issues of group maintenance can be addressed? Why not use transformative negotiation between liberals and conservatives and between those oriented towards authority as opposed to anarchy. Why not stress the personal transformation and training for nonviolent communication, nonviolent action, and compassionate witnessing that will enable community building?

ing aid to local groups and supporting those Washington lobbying groups with positive agendas such as Common Cause's efforts for public financing of elections, and Peace Alliance's efforts to get a Department of Peace²⁹. It could encourage Peace Action in its outreach efforts, work with America's Watch to convert the School of the Americas from training military police to educating about a culture of peace for the world's children, and support groups that are working to encourage support for local economies to convert the military-industrial complex into an environmental sustainability complex.

What I have in mind is not a center that attempts to build a critical mass of like-minded people, but a center devoted to the weaving of a web of influences that bridges the gaps between liberals and conservatives, and connects persons in different positions and organizations with different interests and views. Lederach (2005) has pointed out that cultivating and nourishing relatively few well-intentioned people who are placed throughout our society may, like yeast in a mass of dough, operate to transform the entire system. I can imagine such a group considering the linkages among the whole array of culture of peace issues (poverty reduction, indigenous human rights, environmental sustainability, gender equality, international security, and democratic participation and open communications), focusing on an analysis of the systemic problems and the barriers that prevent change. Such a center would not itself engage in lobbying or the support of particular political parties or candidates. Rather, it would seek to develop a consensus on prioritizing solutions and whether to encourage an initial focus on publicly financed elections, corporate charters, a department of peace, a particular nonviolent action, or some other promising initiative. Such a communal think-tank could connect those whose caring transcends individual interests regardless of whether they value authority or spontaneity. It could facilitate the forming of the communitarian relationships needed for

²⁹ There are a number of ways we can work to change underlying structures. We can support a new political party, caucus to influence the leadership of the Democratic party, work for bureaucratic changes such as a department of peace or create a new congressional committee to oversee peace efforts. I believe we should work for the creation of a department of peace charged with working for the good of all peoples and not simply for those in power in the U.S. Of course, there will be efforts to coopt such a department. But such efforts can succeed if the movement for peace and justice keeps its eye on what is happening. A Department of Peace can do little if it is not backed by citizens. But if it is backed it can be as important for peace as the Department of "defense" is for war. It should be funded by Congress with a new congressional peace committee and its appointees should be scrutinized by this committee.

nonviolent actions that integrate peace and justice. It could provide a point of identification for those committed to global personhood, strengthening the faith needed for actions that attend to both ideals and reality. It would help us to overcome the psychological obstacles within our movement so we can weave the civic fabric necessary for a nonkilling society.

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Peace Theory and Activism in an Imperialist World

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Imperialism and killing are inseparable. Imperialism's killing takes the form of assassinations, executions, violent suppression of civilian protests and demonstrations, and war. Imperialism also kills indirectly through its suppression of labor unions and exploitation of workers, and through long hours of work, low wages, and the consequent poverty, with its accompanying travails. This has been defined as structural violence. Those who aspire to a nonkilling world, like that espoused by Paige (2009), must confront the problems posed by imperialism.

In the last century, and especially since World War II, political scientists, psychologists, and sociologists, among other scholars and scientists, have introduced a variety of theories and their applications to reduce violence and war, achieve compromise and cooperation and, ultimately, positive peace. These are moves in the direction of nonkilling. Presumably, those theories would influence government leaders in the direction of tension reduction and compromise. Most of the theories emerged during the Cold War, when two imperial nations, symmetrical in military power, were competing for world domination. Now there is only one imperial superpower. Were the theories applicable and effective during the Cold War and are they applicable and effective now in preventing or halting wars? In this chapter I will discuss the seeming inapplicability of these theories and point to another direction-toward the study of grassroots activism-as a more promising endeavor.

Imperialism, which has had little attention from psychologists, is a dominant feature in the world order. It imposes its will on relations among states and in the policies of the United Nations, the World Bank, and the International Monetary Fund. Its history shows that imperialist motives have led to countless wars over the centuries. Yet, it has been largely absent from the studies of psychologists, including this author. The word "imperialism" does not appear in the indexes of two landmark publications, White's (1986) *Psychology and the prevention of nuclear war*, and Christie, Wagner and Winter's *Peace, conflict*

and violence: Peace psychology for the 21st century. Yet, the many recent and current conflicts in Africa, Northern Ireland, and the Middle-East had their beginnings in and continuing impact from imperialism. This chapter is intended to help conceptualize nonkilling peace and conflict in the context of imperialism.

The chapter begins with a definition and brief history of imperialism. It then asks whether peace theories have prevented or halted wars. To that end, it considers evidence about the applicability of several peace theories. Did they influence foreign policy during the historical period when two superpowers dominated the world, and are they now doing that when only one power is dominant? Next is a discussion of mobilizing the public to campaign for peace, clearly and consistently demonstrating its anti-war sentiment. This is followed by an examination of the effects of such action on a nation's foreign policy, as reported in published studies. Psychologists could perhaps have greater impact in peacemaking by studying methods to promote public influence over government policy, and by expanding psychological knowledge of social activism and peace movements. The chapter concludes with three proposed avenues for future research.

Imperialism Defined

Imperialism is defined as "A policy of extending a country's power and influence through diplomacy or military force" (Oxford American, 2006: 620). Johnson (2009) emphasizes the unequal relationship in economic, cultural, and territorial matters, marked by domination and subordination. In its ancient and long-historic form, the powerful nation imposed on the weaker one its military, religion, language and installed a submissive government; it also exploited its natural resources and labor force, sometimes enslaving some or its entire people. In its modern, more sophisticated version, the subordinate government gives the appearance of being an independent nation, often with an elected leader and a legislative body but remains under the control of the local elite and more powerful nation, while it provides cheap local labor, and especially a profitable market for the superpower's surplus products. In fact, the major distinction between "empire" and "imperialism" is due to the industrial revolution and, in particular, the productivity of industrial capitalism whose surplus goods demanded a new outlet through foreign markets, an essential arrangement to maintain both profit and employment, and as a result of the latter, labor stability in the dominant nation.

Brief History of Imperialism, Especially British and American

The conflicts which psychologists have been studying and seeking to resolve have been embedded in imperialism. Because imperialism has been ignored, this capsule history is intended to highlight its role in fomenting wars. Sources for this section are Bauer (2007, 2010), Harmon (1999), and Roberts (2004).

Imperialism is so vast a topic because it is almost coterminous with the history of the world. Already by the 24th century B.C., the Akkadian Empire of Sargon the Great was a sizable one for its time. Over the centuries the following empires, collectively, dominated a large block of human history: Mongolian, Roman, Ottoman, Holy Roman, Portuguese, Spanish, Dutch, Persian, French, Russian, Chinese, British and, finally, American, as an imperial power, although not an empire. Each empire had its own military, economic and cultural components that served to dominate and control another population; exploit the local labor force and natural resources; and in some cases, inculcate the conqueror's religion and language.

British and American history, taken together, is illustrative of the rise and fall of imperialist dominance and of its changed character. When the British Empire lost its thirteen American colonies after the Revolutionary War, it still possessed India and soon, after the Napoleonic wars, and under Queen Victoria, added so much territory around the globe that it was popular to say that the sun never set on the British Empire. It is also safe to say that the cost of building the Britain of 1900 was paid for to a considerable extent by the labor of its own workers but also those of its colonies, as well as profit from the natural resources extracted from its colonies. The industrial revolution, which sparked the need for both raw material and foreign markets for its manufactured goods, made its military even more essential to its prosperity and the wealth of its ruling elite.

There was nothing hidden about Britain's motives. The industrialist Cecil Rhodes (after whom Rhodesia was named and whose legacy includes the famed Rhodes scholarships) allegedly declared that the colonies would be invaluable as a way to obtain raw material easily and to exploit cheap slave labor (Britten, 2006). That statement, it should be added, has not been authenticated. In his last will and testament, however, he reiterated his lifelong belief about the destiny of the British Empire: The British, he contended, were the first race in the world and consequently it would be in the interest of the human race for the Empire to inhabit as much of the world as possible (Rhodes and Stead, 1902). He also asserted that to avoid a civil war in Britain, the Empire needed colonies to which excess Britons could

establish themselves. The British historian, Hobsbawm (1987) disputed that view, claiming that the alleged benefits for the discontented masses at home was the least relevant reason for empire

Others, less open about the economic objectives, provided more uplifting motives: Missionaries sought to convert the heathen, bringing to them the religion of their respective lands, Catholic or Protestant. White men saw it as their burden to civilize the savages. Both groups could point to evidence of their good intentions, because along with the exploitation that Rhodes championed, the motherlands did foster education and western medicine, built roads and railroads, and introduced technological advances of the age. The interaction between conqueror and conquered was a complex one, each influencing the culture of the other. In his fiction, Rudyard Kipling was empathic in his representation of Indians, yet with no doubt of the superiority of the British and the righteousness in its paternalistic domination.

Imperialism has long been a feature of American foreign policy. Expansion was clearly on Thomas Jefferson's agenda long before he was president. In the 1780's, expecting the fall of the Spanish Empire and hoping to profit from its misfortunes, he said "till our population can be sufficiently advanced to gain it from them piece by piece" (LaFeber, 1993: 19). De Tocqueville (1835/1945) predicted that one day Russia and the United States would each control half of the world. As to America's claimed motive, Johnson (1997: 609) said; "In the second half of the 19th century most members of the white races felt that they had a divine, or at least a cultural duty, to rule over what Kipling called the 'lesser breeds.' Manifest Destiny had made America an acquisitive power".

The Monroe Doctrine, announced in 1823, had as its intention to protect the newly formed independent states that had broken away from Spain, and also to deter other European countries from intruding in the affairs of the Americas, while at the same time assuring nations with colonies in this hemisphere that the U. S. would accept the status quo. This benevolent foreign policy contrasts with one that is marked by the record of American intervention in the affairs of nations in the Americas. Between 1890 and 2004, the U.S. military intervened 57 times in Latin America (U.S. Intervention, 2011).

Landers (2009: 471-472) refers to the Monroe Doctrine as one of the foundation stones of American imperialism. He adds: "As time went by the geographical limits of the Monroe Doctrine were swept away, and United States action in the Caribbean basin could be seen as exemplars of the imperial mindset that would lead to military interventions in Asia and the Middle East".

Intervention in Iran in 1953 is an example of the long American reach and of its costly reverberations to this day. In that year, the duly elected Prime Minister Mossadegh of Iran was overthrown in a coup engineered by the United Kingdom and the U. S. after the Iranian Parliament endorsed Mossadegh's proposal to nationalize the oil industry. The Shah, until then a constitutional monarch, became an autocratic one who held power, thanks to U. S. support, until his ouster during a period of popular protest in 1979. This opened the door to the revolution that brought the ayatollahs to power, eventuating in the drive to develop nuclear weapons (Gasirowski and Byrne, 2004).

The School of the Americas has played a crucial role in America's policy in the Americas (Blum, 2003). It was originally established in Panama in 1946 as the Latin American Training Center-U.S. Ground Forces, a hemisphere-wide military academy. Later it was renamed "The School of the Americas." Its purpose was to help maintain national security against the threat of internal subversion, a purpose that was enabling to the dictatorships in Brazil, Argentina, Uruguay, Chile, Central America, and elsewhere. Because of its notorious reputation, the name of the school was replaced by the following: Western Hemisphere Institute for Security Cooperation. Its purpose, however, is unchanged: to support governments in the Americas that serve the interests of the U. S., corporations for cheap labor, natural resources and a market for surplus goods.

Another feature of American imperialism is its use of worldwide military bases. According to an article in a publication of The Institute for Policy Studies (Vine, 2009) there are about 1000 overseas bases, although the Pentagon claims the number is only 865.

Oil has figured heavily in foreign policy since World War II. Countries that nationalize their resources inevitably are the victims of the wrath of the giant oil corporations and their respective governments. As reported above, in 1953 Mossadegh of Iran was summarily removed in a coup. In 1972, OPEC (Organization of the Petroleum Exporting Countries) sharply increased the price of oil. "President Saddam Hussein reacted to this price-gouging opportunity by immediately nationalizing Iraq's oil fields. The United States reacted by branding Saddam Hussein 'unreliable,' a 'terrorist leader,' and by throwing its primary Middle Eastern support to Iran, led by the pro-Western Shah" (Pearson, 2002). In 2007 Hugo Chavez nationalized the last remaining private oil fields in Venezuela, to the dismay of major oil companies that operated the fields, and their governments, including the United States.

Imperialist wars have taken a huge toll of human life. Estimating the number of deaths for a given war is difficult enough; estimating it for the 20th century compounds the difficulty. Scaruffi's (2009) estimate of 160 mil-

lion deaths due to war and genocide may be conservative. The two world wars- two imperialist wars-alone account for 70 million deaths; the Korean and Vietnam wars add three million each. Combined with deaths caused by indirect (structural) violence, the figure would be astronomical. This, however, is not surprising, considering the nature of imperialism and its imperative to control and exploit weaker nations. The obvious implication is that the cessation of killing on a mass scale is possible only with the triumph of genuine world government committed to human welfare over imperialist domination motivated by self-interest and profit.

The current form of imperialism is an outgrowth of the capitalist economic system which has sparked spectacular increases in knowledge, technology, comfort and wealth in industrialized nations. In her book, *The relentless revolution: A history of capitalism*, Appleby (2011: 23-24) says "One cannot celebrate the benefits of the capitalist system without taking account of the disastrous adversity and human malevolence that the wealth-generating system has made possible and continues actively encouraged".

The motivation for both direct and structural violence is largely economic in nature. Even the appearance of power as a motive is deceptive: power is exerted in order to possess or have influence over a body of land, with its natural and human resources. Wars are not initiated to satisfy psychological needs, which does not mean, however, that individuals' psychological needs may not be satisfied, such as the need for the expression of aggression (James, 1995); nor does it deny a useful role for psychology in preventing war and in healing its victims when it comes. The primacy of the economic factor does not exclude the psychological, especially in its use by leaders to arouse enmity toward the potential opponent and, hence, support for war. Wars may also have a secondary psychological benefit in redirecting anger aimed at a leader toward an allegedly hostile foreign entity

History shows that imperial powers rise, have their day (centuries perhaps) on the world stage, and then decline. For the time being, the U. S. remains the dominant power in the worldwide system of imperialism, so that it is appropriate that the headquarters of the United Nations is in New York, and those of both the International Monetary Fund and the World Bank are in Washington, DC.

In concluding this section on history, it's worth noting that the subject of imperialism has a place in the history of psychology, as noted in the next section.

Peace Theories and Imperialism

How have peace psychologists responded to imperialism? William James, characterized by Deutsch (1995) as the first peace psychologist, was a founding member of the American Anti-Imperialist League. His position was unequivocal. Now the McKinley administration, James charged,

was openly engaged in crushing the sacredest thing in this great human world—the attempt of a people long enslaved to attain to the possession of itself, to organize its laws and governments, to be free to follow its internal destinies according to its own ideals (Strout, 2001: 437).

Have psychologists followed James' legacy? Some of the rich offerings in what are broadly called "peace studies" are reported collectively in Schwebel (1965), White (1986) and Christie, Wagner and Winter (2001). What can peace theories, emanating largely from political science, political and social psychology, and sociology, offer to the deterrence of war and, ultimately, the elimination of war and killing in an imperialist world?

The Iraq war, in which the U. S was still embroiled at the time of this writing, has its roots in a long history during which the two countries had an on again, off again relationship (Anderson, 2011). After Saddam nationalized the oil industry, the U. S. was not mollified by the fact that Iraq used its substantial profits to build schools and hospitals, advance the educational level of its people and give females a degree of equality as high as any in the Muslim world, all under a dictatorship that was brutal in its treatment of dissenters. Nevertheless, when Iraq and Iran were engaged in bitter warfare, the U. S. provided weapons and secret military information to Saddam. And after he was soundly defeated in the Persian Gulf war, America, under the first President Bush, did not want to unseat him, even when he was using chemicals to dispose of Kurds and others seeking independence, for fear of chaos in the Middle East without his firm, if barbaric, leadership.

Early in George W. Bush's first term oil was a major preoccupation, with Iraq the major target. In fact, after the terrorist attack on September 11, 2001, and after the invasion of Afghanistan, while the allied armed forces and the tribal armies fighting alongside them were struggling to surround and capture Osama bin Laden holed up in the caves at Tora Bora, President Bush gave priority to planning the invasion of Iraq. This diverted the attention of the commander, General Franks, from the task at hand, which ended in failure, that is, bin Laden's escape into Pakistan. Why this priority?

In *Bush's Wars*, Anderson (2011: 231) answers that question with one word, "oil." He tells of a talk President Bush gave to Republicans in which he spoke of Saddam as ugly and evil and made it clear that Saddam "had to go". Bush assured them that there would be "no oil disruption... looking at all options to enhance flow" (231). Asked why the U.S. invaded Iraq and not North Korea, deputy defense secretary Wolfowitz replied: "The most important difference between North Korea and Iraq is that economically we had no choice in Iraq. The country is swimming in a sea of oil" (231). Alan Greenspan, when asked about the motive for the war, said: "The Iraq war is largely about oil" (231). The U.S. and the other advanced industrial nations dependent on Middle Eastern petroleum wanted a friendly and more stable regime in Baghdad, one less likely to incite and destabilize the volatile region. Furthermore, the oil companies wanted to restore privatization of the oil fields in Iraq.

Assuming that it is now late 2001 and early 2002, let us invoke several of the distinguished peace theories and their applications to consider their potential applicability, acceptability, and effectiveness in preventing the conflict between Iraq and the U.S. from deteriorating to war.

Graduated and Reciprocal Initiatives in Tension Reduction (GRIT). Developed early in the cold war (Osgood, 1962), this approach assumes an equivalence of power on the part of the two opposing forces, a condition clearly lacking in the Iraq-U.S. dispute. Nevertheless, despite the inequality, both sides were contributing to the build-up of tension. In fact, as the utterances of President Bush and others in the government indicate, the U.S. chose to heighten tension because it was intent on a war to eliminate Saddam's control and privatize oil. What if a third party sought to intervene, reduce tension, step by step, by having the U.S. lower its demand (e.g., privatization without invasion) and Saddam accept the lesser demands? The success of such a proposal seems highly unlikely because it would require Saddam to surrender the major source of the government's income. GRIT, which according to Etzioni (1986) may have guided Kennedy and Khrushchev to successful negotiation of the Nuclear Test Ban Treaty, seems inapplicable and unacceptable in the 2001 conflict between Iraq and the U.S., two nations so asymmetrical in power.

Strategies of Inducing Cooperation. This classic study (Deutsch, 1985, 1986) employed a two-person laboratory game in which one person was an accomplice of the investigator. The findings were unambiguous. A non-punitive strategy on the part of the accomplice was far more effective in eliciting cooperative behavior from the other person than either a punitive, or a turn-the-other-cheek strategy. The theory was especially applicable to the American-Soviet impasse. What if it had been applied to the Iraq-U.S. rela-

tions in 2001? It seems inconceivable that an administration intent on controlling the oil fields in Iraq could have been induced to behave non-punitively toward Iraq, whose military the U.S. had demolished with ease only a decade before. That approach might have made Saddam less defiant, but hardly open to yielding the nation's major source of income to the U.S., or even just the privatization of the oil fields. Under the circumstances, the strategies of inducing cooperation would have been inapplicable and unacceptable.

An Interactional Approach to Conflict Resolution: The Problem-Solving Workshop (Kelman, 1986). This, too, was conceived as a mechanism to prevent nuclear war, although it was devised and used for conflict resolution between smaller units, in particular in the Israeli-Palestinian impasse. The aim was to develop a procedure that could be institutionalized, used whenever conflict between nations threatened. Its purpose was to deescalate tension in the search for a mutually satisfactory solution to the conflict. High level people from the two opposing groups, not officials, however, are brought together in a neutral setting under the leadership of third parties, with the aim of changing the interactions between the two groups of influential individuals, in a sense, humanizing the relationship, with the assumption that the changes would carry over to the official levels. As to its applicability to the developing Iraq-U.S. conflict in 2001, the likelihood of a group of academics assembling a group of high level individuals from the two countries at that time seems small. The neoconservatives who dominated the Bush administration would have frowned upon it and would probably not have been influenced by the more liberal Americans who might have accepted the role in the pursuit of peace. Saddam Hussein, for his part, would probably have prohibited Iraqis from participating or, at best, would have done so to appear cooperative. The experiences of the two sets of participants, had the workshop materialized, would have had no influence on their respective governments. The asymmetry in power probably would have made the interactional approach inapplicable and unacceptable and, as with the other two above, would have negated its potential effectiveness.

The three exemplars, part of the rich peace studies literature of the last half of the 20th century, contributed to the language of the day, so that terms like "conflict resolution" came into common usage. Public officials, especially those in the foreign service, were informed, sometimes by direct action of the psychologists, as when books by Charles Osgood (1962) and Ralph White (1984) were distributed to the White House and members of Congress. The peace theories probably provided a solid base for the leadership and perhaps some members of the vast peace movements of the time. It is appropriate to ask

whether another half century of peace studies permeating the cognitive and communicative processes would influence leaders in a situation like the pre-Iraq-U.S war, to go to the conference table instead of the battlefield. That is dubious, if the imbalance in military and economic power remained the same, and oil was so potent a force in the economies of the two. From the perspective of an imperial power, why settle for less when we can take it all?

The Dynamical Systems Theory. Let us consider the potential for peacemaking in 2001 of an approach that took root in the post-cold war era. The dynamical systems theory applied to conflict offers a new approach to understanding and perhaps terminating conflict, even the intractable kind (Vallacher, Coleman, Nowak and Bui-Wrzosinska, 2010). As an example of its effectiveness, Bartoli, Bui-Wrzosinska and Nowak (2010) present an analysis of the process of peacemaking in Mozambique after 16 years of bloody civil war between Frelimo, the Communist-oriented and Soviet supported Mozambique Liberation Front, founded in 1962 to fight the Portuguese colonial occupier, and Renamo, a guerrilla group supported by white Rhodesia and apartheid South Africa. Two years before the onset of the war, Mozambique became independent, to a considerable degree because the fascist head of Portugal was overthrown, and the democratic state called an end to colonialism.

According to the dynamical approach, an enmity system is frozen in intractable conflict. In Mozambique, both sides were in agreement about the righteousness of their respective causes; in both, dissent was unacceptable and harshly suppressed. According to the principles of the dynamical approach, the two remain fixed in this frozen state until one or more catalysts produce a thaw that allows for a realignment of forces within the two and the possible development of a peaceful solution.

What unfroze the conflict between Frelimo and Renamo? The authors give primacy to the undoubtedly skillful mediation undertaken by the black Archbishop of Beira, Jaime Gonçalves. They concede that factors other than the Archbishop's intervention contributed to a peaceful outcome. Among those factors they mention the collapse of the Soviet Union and the founding of a new, apartheid-free South Africa under Nelson Mandela. There were, however, other powerful influences. White Rhodesia, which supplied Renamo with armaments and also a refuge when in retreat, became black Zimbabwe, which terminated support for Renamo. Of great importance, the U. S. changed its policy toward Mozambique. When the Portuguese colony became independent, the U. S. began providing aid. However, relations between the two soured in 1977, when Mozambique developed a close relationship with the Soviet Union and introduced a state controlled economy.

The U.S. resumed the aid program in 1984 when, as a state department report on Mozambique said, "it responded to Mozambique's economic reform and drift away from Moscow's embrace" (U. S. Department of State, 2011). Frelimo, recognizing the failure of its own state controlled economy and the dismal effects of state controlled economies in China and the Soviet Union, adopted a free market economy. Mozambique's policy change had a reverse domino effect: it gained American economic support and a more favorable attitude toward it on the part of the Vatican, which played an important role in the peacemaking, indirectly and through the mediating role of the Archbishop. So, while Frelimo's actions strengthened its role as the official government of the nation, the demise of white Rhodesia and apartheid South Africa seriously weakened Renamo's military power and bargaining position, making it much more open to a peaceful resolution of the bloody conflict.

The point to this analysis is that, first, Mozambique was a victim of imperialism from the outset and, second, that the long arms of superpowers were influential in its several transformations, including the final peace accord. This does not discount the potential of dynamical systems theory, though it does suggest that the dynamics of imperialism set the stage for the unfreezing of attitudes and relationships between Frelimo and Renamo, opening the door to peacemaking. It seems fair to conclude that while dynamical theory is a promising approach to understand the forces at work in the peacemaking process, there are too many limitations in its application to Mozambique to justify the latter's use for validation purposes.

Applying the dynamical theory to the emerging Iraq-U.S. conflict in 2001, we do find an enmity system, dating back to its privatization of its oil fields and then the Persian Gulf War, and continuing during the period of the UN-imposed blockade. Now, as the U. S. charges that Iraq possesses weapons of mass destruction and commences war planning, there is an emerging American strategy to heighten the level of enmity, in part by knowingly making false accusations. Still, could someone of great international stature, like Nelson Mandela, have served as a catalyst, urging the two to find a way of addressing the U.S. demand for privatization of the oil fields and Iraq's insistence on its sovereign rights? That is improbable because, as noted above, the Bush administration was determined to have its own way, to have it all, including Saddam's downfall, occupation of Iraq, and protection and privatization of the oil fields. No one, it seems likely, not even Mandela or the gifted Mozambican Archbishop, could have halted the downward spiral to war. From America's point of view, Iraq was for the taking, and militarily, that point of view turned out to be correct. Iraq was easily conquered-but not vanquished or even con-

trolled. The dynamical approach, too, appears to be inapplicable and unacceptable at the time the Iraq war was brewing.

If the economic motive is so overwhelming in power that it trumps any psychological motives and eludes psychological approaches to conflict resolution, what then can psychologists do to help avert or halt a war? This is a challenge to psychologists who deem that objective of high value under any and all circumstances. Not all psychologists adhere to that view. To some, whether war or peace is an outcome of conflict is a philosophical issue beyond the scope of psychology. As three political psychologists said, “the goal of the psychologist is to focus on the processes that lead to particular, predictable outcomes—and not to assign normative values to those outcomes” (Conway, Suedfeld and Tetlock, 2001: 67).

The assumption in this chapter and in this book on nonkilling is that all wars are to be avoided and, further, that that is the goal of peace psychologists. Of course, in the slow and daunting work of establishing a powerful world government in a world dominated by imperialism, nations must defend themselves and, as in the Mideast uprisings in 2011, when citizens demanded the end of repression and the denial of human rights, it sometimes becomes necessary to take up arms in self-defense. It should be noted, though, that those Mideast nations are, themselves, products of imperialism.

Peace Activism’s Accomplishments and Government Reactions

Most peace studies have sought to understand the processes that lead to war, with an eye, in particular, on influencing government leaders. The results, as the analyses above suggest, have been minimal. Another approach is to study how to influence the general public, whose voice at several points in history has, as we will see, hastened the end of war and curtailed the downward spiral toward another possible one. In an article (Schwebel, 2008), I wrote:

In the aftermath of the war in Indo-China, Small (1988) interviewed many officials of the former Johnson and Nixon administrations and learned from them that the antiwar movement had been a major factor in the decision to withdraw United States forces from Vietnam. Wittner, both in his book on the nuclear disarmament movement (2003) and in a paper given at the annual meeting of the American Historical Association (2006), gave evidence supporting the conclusion that peace activism halted some wars and abbreviated others. It has been a major factor in preventing nuclear war. The United States ambassador to the United Nations, Lodge, com-

plained in 1956 that the atomic bomb had gotten “a bad name,” and to such an extent that it seriously inhibits us from using it” (Wittner, 2006, 2). According to Wittner, there is “considerable evidence” (2006, 1) that the peace movement brought an end to the Cold War. Yet, despite its effective role, peace activism figures in only a minor way in journals on peace, whose focus tends to be primarily on research and scholarship that is rarely directed at activism, although containing implications for it.

The Vietnam War protests had still other effects in the U.S. The government abolished the draft, an action that reduced, though did not eliminate, student involvement in the peace movements, but also reduced the vocal and powerful opposition of their parents, a large voting bloc. Besides ending the draft, the Pentagon prohibited the photographing of returning military coffins, and embedded sympathetic newspaper and television journalists in combat units to promote the personalizing and sanitizing of reports from Iraq.

One of the most dramatic changes, resulting in good part from government sensitivity to public opinion, has been the modification of military tactics employed in combat. The result was a significant decline in casualties. In *The relentless revolution: A history of capitalism*, Appleby (2011) points to a change in casualty figures, following the carnage of the first three quarters of the 20th century. In the Vietnam War, 47,000 Americans were killed in five years; in the Iraq war, 4,000 in six years. Actually, in the Vietnam War’s case, the length of the war is ambiguous. The U. S. sent advisors in 1950 but did not escalate its involvement until 1961, and heavily so, until 1963. So, it would be more accurate to report 47,000 killed in about 12 years in Vietnam and 4,800 in eight years in Iraq, and, further, about 2,000 in Afghanistan in 10 years. In any case, the difference in deaths of American troops between the Vietnam and the two later wars is substantial, even if, as seems likely, the number of military personnel deployed to Afghanistan and Iraq (now unavailable) is considerably fewer than to Vietnam. Policy changes in the Pentagon led to the use of drones and so-called precision bombing, among others, sparing lives of troops and probably causing more enemy civilian casualties, although this is uncertain, because reliable casualty figures are so difficult to obtain. The bottom line, however, is that the will of the people shown in opinion polls and, more dramatically, in demonstrations had its effects on government leaders who, in turn, then proceeded, through the Pentagon, to mollify the public.

When public opinion turns from support to opposition to wars that are already in process, government leaders don’t ignore the change; they appeal to patriotism and the need to support the “heroic troops” who are in peril to protect the nation. As I point out later, this calls for a changed

peace activist strategy, for new ways besides relying on opinion polls to influence government policy. It calls for a permanent peace movement that recognizes the sacrifices of American troops, while insistently revealing the flimsy and unsubstantiated arguments for war.

Despite the effort of governments to glorify the military, a worldwide drive for peace is reflected in various ways. In 1971 sociologist and peace studies pioneer Johan Galtung presented a structural theory of imperialism. Peace studies in higher education burgeoned during the last half of the 20th century. Pilisuk and Nagler (2010), who have independently written about imperialism, edited a landmark collection of reports on peace activities worldwide. The book you are reading is one in a series on nonkilling, and there are other series on peace and peace studies at various stages of publication. Several encyclopedias of peace have been published, edited respectively by Young (2010) and Christie (2011). Of particular note is the emergence of academic centers for peace studies, such as the productive International Center for Cooperation and Conflict Resolution at Columbia University, founded by Morton Deutsch.

Also noteworthy is UNESCO's initiation in 1992 of the Culture of Peace Program headed by Director General Federico Mayor, assisted by psychologist David Adams (1995).

Considering that wars have characterized human behavior for millennia and that the first lasting peace organizations had their origin only about 200 years ago, these relatively recent developments are reassuring about the long term, probably very long term, prospects for peace and nonkilling.

Other Avenues for Peace Research

This section focuses on three directions for research directly relevant to peace activism in its confrontation with imperialist motivations. The first involves individuals' reactions to their own anger over planned or ongoing war. The second is on the significance for peace activism of the Internet and other swift communication modes. The third is on the need for a permanent peace movement.

Individuals' Reactions

Inquiries on the dynamics that lead individuals to become activists have yielded the following. People who find their most cherished values violated experience intense anger. Their subsequent behavior depends upon their assessment of the possibility of positive change, that is, change in the directions consistent with their values, for example, their government's move toward nonvio-

lent methods of conflict resolution instead of war. If they decide that certain actions, such as joining with others in a unified effort, will yield the desired effect, they choose the activist role. If they see no way to counter government policy, they may resort to violence. If their assessment leads them to a sense of hopelessness, they may retreat to a depressed isolation (Schwebel, 2008).

This line of research—the personal dynamics in the reactions to the perceived violation of personal values related to war and peace—needs to be advanced. For example, it would be useful to investigate precisely what among the following are the attributes of war that arouse anger: killing in and of itself, one's own death, the death of loved ones, military casualties, civilian casualties, destruction of one's own home, destruction of one's food supply, effects on families at home, effects on families in the enemy country, destruction of enemy infrastructure, neglect of domestic infrastructure, and of education and health needs and services due to military costs. Do subjects experience anger when their own country plans to go to war? If they oppose war, what do they believe they can do about it? Do they speak of individual or group opposition? If they raise the latter, are they acquainted with peace groups? If so, what is their opinion of such groups? What are they prepared to do in cooperation with others in opposing war? Such a study of subjects' reaction to their nation's foreign policy could be conducted at different intervals, e.g., during peace time; before a war, at the start of it, and a year or two after its onset.

Effective membership in a peace organization, and the peace movement at large requires the capacity to work cooperatively with others. It also requires the willingness of activists to submerge some of their own values in order to achieve the superordinate one, in this case, peace. What are the variables related to such personal attributes? For example, are they related to family dinner-time conversation, membership on sport teams, participation in music groups, clubs, business or professional associations, all requiring collaborative relations?

Such studies have a two-fold benefit: They cast light on the individuals' reactions to violations of cherished values. They also provide useful information to organizations working for peace and the peace movement at large.

Swift Communication and the Peace Movement

When the first peace organizations were established in 1815, participants could communicate by voice, quill and ink, and print, and their activities could be reported in newspapers. By the time of the massive CND (Campaign for Nuclear Disarmament) demonstration in London and the annual march to Aldermaston and the enormous anti-Vietnam war move-

ment, communication modes also included radio, television, telephone and loudspeakers. Since then there has been a virtual explosion of devices, including the Internet and cell phone. The overall question is this: What are the effects of these advances in electronic communication on social activism and, more particularly, on the strength and efficacy of the peace movement.

Psychologist Gerald Coles (2011) has proposed research on the role of electronic communication to facilitate organizing for social change: "How does it help or hinder? How much does it promote collective action or, perhaps, individual isolation? Does it promote or diminish rich, complex understanding of issues and strategies to address them?"

It would be presumptuous to assume that the communication devices that have changed our lives in the 21st century have promoted the causes of peace and social justice. As Coles points out, the peace movement in the Vietnam war era was more powerful and effective than the current one. Perhaps today's leaders, organizers and members are still learning how these communication advances can be used to promote understanding and enhance unity of action, and how to avoid their potential for encouraging isolation. Those are some of many potential topics for inquiry.

A Permanent Peace Movement

The very concept, peace movement, needs clarification. Neither in the 20th or 21st century has it been a single entity. The huge and influential movement during the Vietnam War was composed of many groups, including those of students, women, civil rights, labor, and war veterans, among others. They were united for the most part only in their immediate objective of ending the war. The same may be said about peace movements in Britain and elsewhere.

The past shows that when wars end, peace movements collapse and only those historically committed to peace, like the Quakers or the Women's International League for Peace and Freedom, carry on. Meanwhile, the potential peace movement is in hibernation and, when war threatens, it awakens slowly and once again rebuilds from scratch. The implication that researchers should take note of is the need to find the psychological bases to maintain its continuing existence, avoiding the inordinate waste of time in building new structures when the war drums are already beating and many people have succumbed to the demonizing of the enemy. The pressing questions are how to maintain the peace movement during the inter-war period and how to sustain awareness of the predilection of imperialism to use force to gain economic advantage.

There are two powerful reasons for striving to build a permanent peace movement. First, the obvious one, is the enormous waste of time in building new structures when the government is appealing to patriotism, and many people are already convinced of the duplicity of the enemy. The alternative is a commitment to peace during the non-war period, a unified movement reaching out to the public as actively and insistently as the government and its pro-war advocates in the media are doing. In *Bush's Wars*, Anderson reports that between September 2002 and the start of the Iraq war, over 400 articles attributed to "White House sources" and giving the administration's pro-war point of view appeared in the press, 140 of them on the front page. In contrast, six articles, which raised doubts about the need for war, appeared, none of them on the front page. It is no wonder the opinion polls leaned toward war. Such bias can be counteracted only by a powerful, permanent, national peace movement.

The second reason for building a permanent peace movement is related to human cognitive processes. Once individuals have acquired an ensemble of fixed opinions, such as "my nation's existence is under threat, the enemy is somewhat less than human; it is determined to destroy our way of life; it will turn off our vital oil supply," it takes time and much persuasion through hard evidence, to change their conceptions and, ultimately, their opinions about a war. The slow process of change, even in the face of hard evidence undermining the government position, is normal behavior. It is consistent with findings in cognitive psychology. Most dramatically, it is evident in Darwin's very slow, gradual rejection of established explanations for the diversity he found (Gruber, 1974). This principle of the very slow transformation of conceptions applies especially to firmly held views of adults acculturated to respect and accept claims made by authority figures. Several psychological forces are operating. For example, dissonance between trust in government and new facts that question the government's policy creates discomfort, which can be relieved by rejection of the facts. The new facts undermine the human preference for consistency, causing unease, again, relieved by rejecting the facts. Furthermore, when individuals feel certain, let us say about a war policy, and the outcome becomes less likely, their need for certainty sometimes leads to even stronger adherence to their belief. These proclivities in human reaction are not quickly overcome. So it is not surprising that Gallup polls during both the Vietnam and the Iraq wars, when the public was asked whether the invasion was a mistake (Gallup, 2011) show a period of about one and no more than two years between majority support for the war to majority opposition.

The Challenge to Peace Researchers and Activists

The challenge to peace researchers and activists is to establish and maintain a permanent, active peace movement, preferably a consolidated; worldwide movement, as active during non-war as during periods of war.

Another challenge is of a different sort, addressing as it does, issues about the functioning of activist groups, not individuals. Here is a series of questions with strong psychological implications, that also need continuing attention.

1. How does a group persuade potential members that the individual's objective (e.g., end a war) is possible only through group action?
2. How does an activist group maintain its membership?
3. How does an activist group maximize membership participation in policy formulation and execution?
4. How does an activist group avoid the dangers of autocracy, racism, sexism and social classism?

A less than optimistic outlook about the possibility of establishing a successful world, or even national, permanent peace movement is held by David Adams, the psychologist who played a key role in advancing the concept of a culture of peace, while holding a leading position at UNESCO. In his book, *The history of the culture of war* (2008), he concludes that the culture of war, inherent in all nation-states, will make the realization of a culture of peace and the end of war impossible until all those nations collapse economically and are replaced by new ones. Even then, a culture of peace will prevail only if people at the local level have yearned and organized for such a culture (Adams, 2009).

A more optimistic outlook is implied in Appleby's (2011) history of capitalism, with its compelling title, *The relentless revolution*. Capitalism, as she presents it, adapts to changing conditions and adjusts to changing demands. Examples of those adjustments are given by Watson (2011) who reports the surprising historical fact that two conservatives, Bismarck in Prussia in 1883 and Churchill in Britain in 1945, were fathers of the welfare state in their respective countries. Champions of capitalism, not parties of the left, produced features of what is now known as social democracy. But could that capacity to adjust include adopting a culture of peace and foregoing the profits yielded by imperialist interventions?

Is there reason for optimism? Our forebears, the philosophers who yearned for peace and the activists of 1815 who organized for it, probably wondered as we do today, if their efforts would move them forward on the long road to the

end of war and killing. To borrow from an historian, since psychologists and social activists are not prophets, we cannot say. We can only work as if they do.

Note

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**Personal
Transformation:
From Killing to
Nonkilling**



The Transformation from Holocaustic Intergenerational Trauma to Nonkilling Intergenerational Wisdom

Danica Borkovich Anderson

Kolo: Women's Cross Cultural Collaboration

Introduction

Of all the ills that afflict humankind, the most virulent disease is of our own making: WAR. With neither a cure nor the resolve to stop the spread of this violent virus, historic headlines continue to be written with the blood of innocents. Among those innocents, women and children suffer the most, as evidenced by Julie Mertus (2000: 3) who reported an estimated forty to fifty million refugees globally with approximately seventy five to eighty percent women and children. In their roles as victims of violence amid the intergenerational hatred that feeds war, mothers take center stage as they bury their children in both marked and unmarked graves. Pierce the fragile veneer of a seemingly civilized society and the pent-up poison of past wrongs, real or imagined, spreads throughout the body politic. Once infected, an orgy of savagery begins. In armed conflicts around the world, a new commerce in cruelty has increasingly emerged: Gendercide. The specific targeting of women and children to be murdered, mutilated, raped or recruited as combatants has become a rule, rather than an anomaly, of the brutal lexicon of warfare.

My decade of trauma work with war survivors, war crimes survivors and victims who endured natural disasters is focused on understanding the perpetuation of intergenerational holocaustic trauma. Intergenerational trauma, in short, traces the traumatic reactions to catastrophic events (e.g., conflict, natural disasters, wars, and violence) that occurred in preceding generations to the current generation. Findings of a century of war in former Yugoslavs from WWI, WWII to Balkan War provide an example of intergenerational trauma and the climate of hatreds between the violent trauma events. In this pivotal climate of hate and war, we have a unique opportunity to develop a nonkilling inter-

generational wisdom instructing peace and harmony while healing trauma for the entire collective community. As a Psycho-social Victims Gender Expert for the International Criminal Court at The Hague, I bore witness to the women in Africa (Chad, Congo, Sudan and Uganda), Bosnia, India, and Sri Lanka who suffered on the frontlines of genocide, gynocide and crimes against humanity.

My professional work in intergenerational trauma is linked to my own experiences during my childhood as a South Slavic girl. I share a path through life with the Bosnian women who have survived war crimes and with war crimes survivors in general. Sadly, our numbers keep growing: in their study for the Geneva Centre for the Democratic Control of Armed Forces, Marie Vlachova and Lea Bion explain, "We are confronted with the slaughter of Eve, a systematic gendercide of tragic proportions" (apud Winkler, 2008: 265). I include my sisters in Africa and Sri Lanka in these numbers, my heart growing heavier with yet another reminder of the widespread use of violence against women in contemporary warfare. My own Serbian parents immigrated to the United States after World War II, and the intergenerational trauma that was transmitted from them to me, inspired me to search for healing practices. As I listened to multitudes of survivors' first person stories, I learned about the South Slavic indigenous native social intelligence and community practices of the kolo, Serbian for round dances. All of these experiences prompted my investigation and research of the most culturally and engendered somatic psychological trauma treatments and advances in neuroscience. This journey has led me to synthesize the archaic knowledge of the structure of the world and how we live within a community, how we incorporate individual and collective intergenerational wisdoms founded on the soma into living body-somatic psychology.

It is true that what happens to me also happens to you and to all mothers and daughters. Without intervention, what happens to me and to you will also happen to future generations. This relationship defines Holocaustic intergenerational trauma in our age of violence. However, if we examine the natural disasters in the Neolithic and Paleolithic ages, if not hundreds of thousands of years previous, we discover a nonkilling culture that developed a responsive human neurological network to ensure the continuation of our species and most other life forms. Essentially, we see the survival of the human race relying on intergenerational wisdom transmitted not by computers, libraries or scientific journals, but by the recording of human life experiences into soma and genetic material. In *Dark Night, Early Dawn*, Christopher Bache explores through the lens of neuroscience and somatic psychology the ways in which the experiences of our ancestors thousands of generations ago are preserved and carried forward to each individual's life experience (2000: 41).

The soma or living body is genetic fodder through which our neurological network is guided into actions, behaviors and responses. As Joan Marler implores in "The Circle is Unbroken," we should focus deeply and exclusively on the patriarchal military phallocracy to understand the how the repercussions of a single trauma can wound multiple generations (1997: 17). These wounds are rooted in previous life experiences, allowing current generations to heal and become more resilient. When we factor for the inclusion of females and their life experiences, we arrive at a starting point for understanding the role psycho-neurophysiology plays in this process. The biological etiology of birthing and mothering as nonkilling psycho-somatic responses and behaviors set the stage for intergenerational wisdom rather than Holocaustic intergenerational trauma.

Each mother's life experiences are etched onto her child through both the rich genetic double X chromosome and her role as the major figure in the child's development through infancy and early childhood. In *The New Feminine Brain*, Mona Schulz (2005: 64) explains that the mother's life experiences commence the intergenerational transmission of wisdom and genetic coding. For the past five thousand years, the age of violence has twisted the soma-based intergenerational transmission of wisdom into Holocaustic intergenerational trauma. Despite the plethora of studies focused on wars, violence and trauma, very few of them focus on females' roles on the frontlines of this violence or their potential roles in bringing peace to our communities. Additionally, centuries-old practices and rituals are often dismissed as petty ethnic or cultural idioms that are not relevant to the current generation.

Despite this contemporary dismissal of ancient traditions, Riane Eisler's research in *The Chalice and the Blade* shows that in the far past, cultures and civilizations were nonkilling and peaceful (1988: 25). Since March 1999, more than a decade of my *kolo* (folk round dance and/or circle) trauma treatment and outreach accompanied with psycho-educational training in Somatic Psychology, psycho-neurophysiology, has resulted in a deepened understanding of psychosomatic disorders, specifically of trauma and memory disorders. Multi-faceted Kolo Trauma Response protocol is designed to halt intergenerational trauma via a self-sustainable, social, somatic psychological movement facilitated by women in their own communities. The protocol integrates culture and community with social justice mechanisms to provide a space for reconciliation and social reconstruction, allowing peace to flourish in communities at grassroots, micro-movement levels.

Beginning with a serious review of previous cultural and ethnic approaches to treating the trauma of former Yugoslavs suffering from the Balkan War, I en-

tered a Poetic College of intensified learning. Barely enduring the aftermath in the previous millennium, the South Slavs—in particular, survivors of the Bosnia-Herzegovina war—rebuilt their lives by focusing on their South Slavic rituals, practices and customs. For the past decade the marginalized Bosnian women’s healing efforts and first-person stories of war crimes have provided insights to what had been an intangible, nonkilling heritage that relied on bio-culinary herbal measures, self-sustaining gardens, embroidery, and folk dances/circles to expand the instructional tools for developing stronger, more prosperous females. Even though the creation of *kolos* in Novi Travnik and Ahmica made significant socio-political economic impacts on the reconciliation and social reconstruction efforts for Bosnia’s middle cantons, the only recognition of these efforts exists in derision targeting female culture and female humanity and threatening the evolution of females’ presence and peace efforts in the aftermath of war. Still, the trauma healing efforts in local communities have sparked a female-based social movement promoting nonkilling societies.

While humanitarian aid organizations and most western health services rarely cover the long term behaviors of catastrophic trauma, South Slavic peoples, like survivors in Africa, Indonesia and Haiti, have turned to the healing guidance of their own diverse cultures. By including their ancestors’ healing practices, they remain untouched by the sterile psychiatric and psychological methodologies that are removed from the archaic, soma-based healing methods.

South Slavic Cultural Origins: A Return to Nonkilling Practices

South Slavic culture has survived three catastrophic wars in one hundred years, with two world wars played out in former Yugoslavia. Yael Danieli (1986: 295-313) explains in “The Treatment and Prevention of Long-Term Effects and Intergenerational Transmission of Victimization” how all of these experiences have etched the society with the neuro-scientific and somatic scars of intergenerational trauma. Though devastating for South Slavic peoples, this holocaustic situation provides researchers with the perfect opportunity to analyze the alignment of neuroscience and folk somatic psychology practices. This landscape of trauma also allows us to explore how South Slavic peoples were infected with holocaustic intergenerational trauma so quickly.

South Slavic Female Humanities, a positive folk psycho-biological appropriate practice, is still very present in the former Yugoslavia (Jankovic, 1934: 5-12). Marler (1997: 310), however, has explained how the millennia-old South Slavic practices that once forged peaceful communities and harmonious

life experiences through oral memory traditions are vulnerable to intergenerational trauma transmission. These oral memory traditions incorporate the body's physical interactions with natural and cosmic forces for completing the practical tasks of daily life, initiating recovery from trauma in small acts ranging from child rearing, to completing domestic duties, to sustaining agricultural gardens, to celebrating events at the local level. These comparatively tiny and often overlooked instances of recovery from intergenerational trauma become starting points for healing the local community. They are the ways in which South Slav women initiate and perpetuate a nonkilling society.

More importantly, the intergenerational wisdom transmitted through South Slavic oral memory traditions plant the seeds for nonkilling community in local arenas, which eventually blossom into peaceful civilizations. Classically-trained archeologist Marija Gimbutas identifies in *The Language of the Goddess* the harmonious civilization which she termed 'Old Europe.' According to Gimbutas (1989: xi), from the 7th to 3rd millennia BCE, Neolithic Europe was free of wars, violence or pornography. Any trauma in this period of peace and harmony was borne from catastrophic natural disasters and/or ill health, loss of life, limb and injury. By exploring the ways in which these ancient peoples evolved their peaceful cultures we can see how trauma can be converted into intensified learning events. In Schulz's study (2005: 310), we see that that the oral memory traditions found in South Slavic cultures directly result from these millennia-old lessons mirroring the neurobiological and somatic dance of our brains and neurological network in the body.

According to Eva Jablonka and Marion Lamb's study (2005: 84-94), Evolution in *Four Dimension: Genetic, Epigenetic, Behavioral and Symbolic Variation in the History of Life*, life experiences and cultures largely shape DNA code. The body's neurobiological and somatic processes synthesize the rich variety of lived experiences from the past with those of the present generation. Intensified learning is programmed into the DNA and allows the curriculum of life experiences to constantly evolve. The adaptive significance of evolving child-rearing and domestic practices to fit the contemporary environment allows the culture and community to not only survive, but to thrive.

Traumatic experiences offer some the intense, multi-modal learning opportunities that Schulz (2005: 311) shows both genetically encode the intuitive ways we behave and respond to life's circumstances and provoke our curiosity and the thirst for knowledge. Robert Lickliter's (1996) research on the construction of learning practices reveals that multimodal learning approaches utilize social learning that is successfully transmitted from each generation to the next. Meanwhile, Ernest Rossi's (2002: 107) work on neurogenesis ex-

plores how the adult brain continues to learn through physical activity's ability to "optimize neurogenesis: the growth of new neurons and their interconnection throughout the body". The work of multiple additional researchers corroborates that dancing, working the fields and physical activity nourish the social learning aptitudes that promote a nonkilling world.

The most prominent remnant of South Slavic oral memory traditions are the Slavic *kolos*, Serbo-Croatian for being in a circle or folk round dance. Within the context of Gimbutas' archeological research of the peaceful Neolithic Old Europe, of which the former Yugoslav region was center, we can see that the South Slavic oral memory traditions are what Rossi (2002: 475) refers to as "mutually adaptive players involved in a co-evolving replay and re-synthesis in privacy and communion on all levels from mind to genes". Holocaustic intergenerational trauma is "gene state affected," meaning that traumatic life experiences etch neurological survival responses onto our genes.

Forging a nonkilling community means converting Holocaustic intergenerational trauma into intergenerational wisdom. South Slavic war survivors have realized how responding with Holocaustic intergenerational trauma only produces another century of wars. In the seemingly apocalyptic aftermath of the third war in one century, the people of Bosnia and Herzegovina faced malnutrition, hunger and unemployment. All that remained were the South Slavic oral memory traditions. The *kolo*, with its physical activity and formulaic patterns of movement, has brought together the embodiment of memory from antiquity and of the land on which the peoples were born and died. In *Archaeologies of Landscape: Contemporary Perspectives*, Wendy Ashmore and Bernard Knapp (1999: 13) assert that the *kolo* symbolically creates collective memory from community identity rather than the debilitating details of individual identities—the particular war crimes participants' experienced, or their experiences of cruelty in the aftermath of war.

Oral Memory Traditions of the South Slavic Life World

Great import is placed upon the South Slavic life world and their oral memory traditions dating back to the Megalithic period. The ancestors' applied wisdom has grown through the oral memory traditions forged by intergenerational practices. Most do not know that the South Slavs did not have a written alphabet until the late 1800's, further preserving the vestiges of nonkilling peaceful communities. South Slavic traditions are expressed using symbolic representations, as opposed to the limitations of a twenty-six letter alphabet, allowing these oral memory practices to closely mirror the

neurobiological process of remembering: the millions, if not billions, of possible symbols in a symbolic alphabet dwarfs the twenty-six letter alphabet.

Holocaustic intergenerational trauma replaces the oral memory practices organizing intergenerational wisdom and haunts the South Slavs through memory disorders like Alzheimer's, amnesia, dementia from stress, and exhausting fear/fright. Despite the innumerable psychological treatments of Post Traumatic Stress (PTSD), none of the methodologies have been shown to heal the condition. Nor have any of the peace treaties erected in the past one hundred years of the most holocaustic violence since the beginning of time provided peace.

A death sentence is handed out for the South Slavic oral memory practices via cultural omissions from the judicial system and humanitarian policies. Witnessing those suffering from trauma led to my applying South Slavic oral memory practices and female humanities in specific trauma treatment circumstances. The results show that cultural social memories and oral memory practices can provide insight and healing when the past is perceived for future generations as a way to evolve and not repeat the violence.

Consequently, as Julie Mertus (2000: xi) has revealed a deliberate and systematic violence against whole populations translating to a death sentence that is handed out for the South Slavic oral memory practices via cultural omissions from the judicial system and humanitarian policies. Witnessing those suffering from trauma led to my applying South Slavic oral memory practices and female humanities in specific trauma treatment circumstances. The *Humanitarianism and War Project* results suggest that cultural social memories and oral memory practices can provide insight and healing when the past is perceived for future generations as a way to evolve and not repeat the violence

The South Slavic mythic narratives' treatment of memory as cultural and their potential for healing trauma are validated by neuroscientist Karmin Nader's current memory research, which was summarized in Kathleen McGowan's August 2009 *Discover* magazine article. However, Nader's breakthrough is still being refuted by the old guard scientists. Archeologist Marija Gimbutas, who deciphered the icons and symbols decorating "Old Europe" (6,500-1,450 BCE) as a mythic narrative based on oral memory practices, also encountered the skeptical nature of neuroscientists. Strangely enough, and contrary to the prevailing disregard of Gimbutas' work, the archeological findings are validated by the staggering implications of discoveries about how memories are inscribed in the brain. With Gimbutas' decipherment of Vinca script of Old Europe which strongly applies to memory and neurobiological process, the very artifacts prove that Neolithic peoples, mostly Proto-Slavs,

have applied the memory principles and practices for millennia. Even more compelling is the discovery that ritual of cup readings by the South Slavs embodies the same process of deciphering memory that Marija Gimbutas used to cluster the symbolic representations and iconic alphabet to form meaning.

What is revealed is the plasticity and adaptability of memory, as it allows for infinite diversity among healing approaches and mythic narratives specific to individual life experiences. Intriguingly, culture and community social collectives are encased within the plasticity of a neurobiology and soma-based partnership. Such a partnership helps us to see the inter-relationships between the South Slavic oral memory practices of the kolo, the archeological evidence of ancient civilizations, and the neurobiology of our brains in dealing with the memories of traumatic events. The key here rests in humans' hands as we are the masters of our own mythic narrative paralleling our neurobiological processes of memory. Together, these elements produce the potential for peaceful, nonkilling communities.

Effects of Therapeutic, Political, and Somatic Layering of Memories

What is clear from studying war survivors across the globe is that inter-generational trauma is catastrophically a woman's burden. Julie Mertus' humanitarian research on the Balkan War reveals that 83% of refugees across the world are women and children (2000: 3). The fact that we are all born of a woman and that the overwhelming majority of primary caregivers for children and families are women, women's capacity to propel culture using psychosocial behaviors stands central. The intimate processes of menstruation, child birth and raising children are all biological and neurological behaviors responsible for shaping future generations. As Christopher Knight and Alan Butler (2005: 210-216) show in their work it is through localized female solidarity that cultures and peaceful communities are forged.

In climates of war, however, violence takes place in front of women's hearths, where intergenerational knowledge is most significantly vulnerable. Social scientists have noted that since WWII, military campaigns have been orchestrated in the homes and backyards of civilians. The number of civilian casualties since WWI has risen dramatically alongside the instances of war crimes against the female body such as rape, enforced pregnancy, and mutilation targeting the reproductive organs. The scopes of millions of machine guns are targeting the most intimate realms of the female soma: the prevalence of rape in the Congo and in the aftermath of the Balkan War are all acts of violence against the intimacy of women's own bodies. John Wilson and

Terence Keane (1997: 193) point out in *Assessing Psychological Trauma and PTSD* that only recently have that soma and the female body stopped being neglected by both the clinical treatment of trauma and the judicial rule of law. According to Antonio Caseses (2003), rape was only cited as a war crime or a rule of law issue in the late 1990s. At the same time, Wilson and Keane focus on the roles memory plays in South Slavs' experiences of post-traumatic stress reveal that severe personal assault and loss are common for women: "prevalence data in special populations suggest that rates of PTSD in women are appreciable, often exceeding levels found in men" (1997: 198).

In the previous millennia, South Slavic oral memory traditions have offered healing through ritual memory exercises with actions fully encompassing women's life world—nothing was excluded or segmented. Cross-culturally, social memory rituals are proto-typical her/ history recordings, mythical narratives crucial to shaping and reconstructing communal social justice memory. South Slavs and other peoples with oral memory traditions suffer greatly when subjected to judicial and conflict-management approaches. Memory is meant to be layered and developed into a narrative that lends meaning only after having lived through critical life and death scenarios. Memory's mutability allows for multiple and even conflicting versions of what happened to co-exist in its re-creation of social memory. The same mutability heals and diffuses traumatic events, as is shown in mythological accounts of fables, legends and fairy tales that speak of the active memory process as an ongoing intergenerational practice. The intergenerational memory of mythic narratives is ingeniously carried forward into future lives through such "small" acts of reading stories to children.

Memory is, according to South Slavs, a mega library, an archive filled with every single life experience. We use our ever-present past life experiences to adapt to, survive and thrive in the current environment. This mega-library dating back to the Megalithic age is the same as what Carl Jung referred to as the collective consciousness. From the perspective of most South Slavs, trusting peace treaties, legal lingo, and tomes of rules and ramifications created by ruling powers to produce peace is delusional. The erection of overwhelmingly male hero statues and memorials throughout the globe and the celebrations of military domination have replaced the ritual celebrations of everyday life experiences.

The Slavic peoples seem to intuitively know the essential function of memory is to provoke the development of new memories. The South Slavic Megalithic practices are based in a mythic narrative filled with symbolism that is applicable to celebrations of both mundane experiences and ecstatic en-

counters. Without the mythic narrative, depression throws a cloak of meaninglessness over one's existence. According to McGowan (2009), both PTSD and major depression affect the neurobiology of memory, which impacts the South Slavic oral memory practices and mythic narratives that heal trauma.

PTSD's effects on memory range from the complete lapse of memory to a conscious reluctance to narrate or even think about the traumatic event. Some patients re-experience the events over and over through memories that are often tinged with exaggerated arousal symptoms, fitful sleep and poor concentration (Newport and Nemeroff, 2000). It is commonly said that Bosnians who survived the war in the 1990s don't drink because they want to forget the past, but because there is a tomorrow, the common interpretation being that one should use memory of the past to fuel the pursuit of vengeance in the future. Hence, a century of wars, rather than the intergenerational South Slavic practices used to remember the past within the context of their mythic narratives, overtakes the former Yugoslav region.

When the indigenous mythic narrative isn't reinforced, PTSD behaviors spill intergenerationally into the lives of children and are perpetuated by the judicial system. Recapitulations, succinct summaries of events, each retrieved from its original format and context, were the preferred form for expressing memories in both of these contexts. Memories are reconsolidated by layering significant information and symbolism, continually revamping or re-organizing a narrative of the event. Ideally, this narrative memory includes all possible cosmic and microcosmic world views. The reconsolidation process makes memory more functional, allowing us to more easily update wisdom as we collect life experiences, and provides remarkable potential for healing local communities. The recall and recitation that is central to South Slavic oral memory traditions evokes long-buried ancestral memories pertinent to survivors' present life experiences. Similarly, the *kolo* is danced repeatedly throughout the generations in a pattern of body movements describing first person narratives. Variations between how the *kolo* was danced in previous generations (recapitulated) and how the present day generation would dance the same *kolo* (reconsolidating) allows for each life experience to be recorded in the dance. Within the judicial systems, however, the recall of traumatic events is restricted to only the facts of a particular criminal act. The Yugoslav War Crimes Tribunal records victims' recollections into trial transcripts that are remarkably detailed, dated and catalogued line by line. However, the neurobiological process of memory, which according to Eric Kandel's *In Search of Memory*, does not offer a vivid, line-by-line, factual recount of events, is not represented in the rule of law or judicial proceedings. The complicated neurobiological

process created by post-traumatic stress and the judicial procedures' dismantling of ancestral memories disrupts the reconsolidation memory process.

For the Muslims who suffered horrendous genocides, the judicial restrictions on the expression of memory and on the classification of which memories are "relevant" to a testimony produce even more confusion. No matter how closely we scrutinize the Clinton Administration's Dayton Accord for the Balkan War (1991-93), we cannot find any sign of South Slavs' collective memory narratives. For instance, within the Dayton Accord, both Tuzla and Srebrenica are placed within the dotted lines of the Republic of Serbia, despite their recognition for the last several centuries as Bosnian communities, and despite the Republic of Serbia's army's slaughter and murder of hundreds of Srebrenica men during the Balkan War. Families that claim their Bosnian genealogy in Tuzla and Srebrenica are now disenfranchised as they are dislocated from their mythic narratives and cultural memory by the Dayton Accord's geographic dismantling of former Yugoslavia. Because what was Bosnian prior to 1991 is now included in the Republika Srpska, the people inhabiting those areas are considered to be Serbian. Fatima, a Muslim war survivor from Novi Travnik, quipped after the release of three Croatian war criminals responsible for the 2001 crimes in Ahmica/Vititez, "now they have us killing ourselves" through the manipulation of the judicial systems. The same can be said for the Srebrenica war crimes survivors, mostly women and children, who argue that their ages-long Bosnian identities have been twisted so as to erase the fact that Serbs were attacking and killing Bosnian Muslims: according to the Dayton Accord's geographic designations, the Srebrenica massacre consisted of Serbs murdering Serbs.

For more alarming accounts of how the judicial system's assaults on individual memory, we need only examine the Yugoslav War Crimes Tribunal transcripts for June 8, 1993, which describe the violence of the armed conflict between the military formed by the Croatian Defense Council (HVO) and the army of Bosnia-Herzegovina in Ahmica/Vititez. In "Post-Traumatic Stress Disorder and Memory," Landy Sparr and Douglas Bremner (2005) summarize the testimony: on or about May 15, 1993, Witness A, a female approximately 45 years old and living in Vititez was arrested by the Croatian squad called "Jokers." According to her testimony, she was taken to a holiday cottage and placed in a large room with a group of soldiers who held knives to her throat, stomach and inner thigh, threatening to stab her vagina if she did not speak the truth. The defense maintained that Witness A was mistaken due the series of traumatic events she had endured and "the lapse of time since the events." Additionally, the defense attorneys pointed out

the psychological treatment at the medical clinic in Zenica, a half-hour ride from Vittez, literally made her memory unreliable.

In this context, thousands of years of oral memory traditions and somatic practices become submerged shadowy PTSD forms due to the cataclysmically traumatic events. South Slavic memories, especially of the mass rapes in Bosnia and the abuse and torture of women, are dismembered from historic annals, judicial systems, and ruling entities hardwired in androcratic perspectives. The rule of law found in the Yugoslav Tribunal courts and other judicial systems continue to exacerbate the victims' PTSD symptoms and disrupt Slavic memory practices.

A more recent example shows the Srebrenica survivors reeling with the September 2009 Yugoslav War Crimes Tribunal's decision to destroy any artifacts from the mass graves of their male relatives. The cold logic of the decision demonstrates yet another way in which the judicial system's policies interfere with war crimes survivors' healing processes by re-traumatizing them and heightening their PTSD symptoms. In Kristin Deasy and Dzenana Halimovic's (2009) Radio Free Europe report on the decision, a Srebrenica war crimes survivor—a mother—explains that many mothers who lost children don't have photographs of them, and "if you don't have a *mezar* [a Muslim grave], if you don't have photographs, if you don't have anything that belonged to that person, it's like the person never existed. Those things put us in a position to prove that we did have our children". This is understandable since South Slavic Oral memory traditions rely on iconic representations that are intergenerational. Noting Lepenski Vir's six thousand years old symbolic temples and homes structures legacy concerning rituals and burials that were mostly for children offers an example of the long legacy of South Slavic Oral memory traditions. The Lepenski Vir site, not very far from Srebrenica, provides evidence that children both lived and died there in the same pattern as the Srebrenica war crimes survivors. The Female Social Justice and South Slavic female humanities have powerfully displayed mortuary images of the four to six thousand years old artifacts strewn about in the former Yugoslav regions, but with the Tribunal's decision, this archaic wisdom practice has been dismissed. The social memory found in the simple watch localizes images of the past in the specific places and spaces of their lives. Although fragmentary and provisional, these images of memory heal by reconsolidating the memories into the archeomythological narratives of cataclysmic violence scarring their lives.

The potential for transforming the impacts of holocaustic trauma to intergenerational healing in women's intimate environments is perhaps made most

clear when we focus on another specific example found in the Yugoslav Tribunal Courts testimony of the Ahmica/Vitez war crimes. The witness's family faced the memory of a heinous war crime: their infant was baked to death on April 16, 1993. Unable to afford the removal of the nearly 100-year-old wood burning stove from the home, the witness testified that baking breads and preparing food stuff daily helps to layer their horrific memory with memorial practices involving food and warmth. The physical activity of cutting wood, stoking a fire and kneading bread eases the impact of traumatic memories in their daily lives. Rossi (2002: 106) reports that behavioral state-related gene expression has a genomic origin of behavior that is constantly cued by psychosocial input. Intergenerational trauma, intergenerational legacies of hatred, thousands of years of wars, and the mass rapes in Bosnia and the Congo have all impacted the psychosocial behaviors for future generations, thereby increasing the potential of future generations to repeat conflicts and violence. The acts of daily life—the simple preparation of a meal—serve as a continual reminder of what transpired on April 16, 1993, but the Ahmica war survivors were cued by psychosocial behaviors contained in the oral memory traditions. Rossi's neurogenesis therapeutic movement calls for activity-dependent experiences with new variations to be 'replayed' in order to signal a changing psychobiological state (Rossi, 2002: 474). The survivors in Ahmica performed their deeply intuitive replay by tapping into their life experiences for soma behaviors affecting genes that foster intergenerational transmission of wisdom prompting peace (Rossi, 2002: 476)

Features of South Slavic Oral Traditions: Engendered Approaches

The Kolo Trauma Treatment and Training of local women survivors was developed and implemented for engendering trauma treatment approaches in the intimate environment of all-women *kolos*. The oral memory traditions of the Slavs document their prodigious memorization and canting of thousands of lines without written words in a patterned narrative, a formulaic poetry verbalization (Winkler, 2008: 13). The formulaic poetry verbalization is another *kolo* trauma format in which, as Schulz (2005: 310) explains, the right-brain (amygdala) nonverbal memory narrates past life experiences into the canting of a rhythmic memorized story. South Slavs' prowess for remembering these oral traditions informs the intergenerational wisdom for a nonkilling society. The *kolo*, folkloric circle and memorization are all performed through formulaic patterns of body movements, the earliest known forms of somatic psychology and biological practices.

Kolos are spaces where the landscape lends itself to triggering memory, where women's healing practices involve harmony and curiosity as integral aspects of intensified intergenerational learning. The degree to which all living soma are interconnected is sometimes startling. For example, on Mt. Vlasic, a half hour away from the town of Novi Travnik and pock-marked with a million landmines, we find the site of the 1984 Winter Olympics site, where an estimated more than forty people annually are victims of the land mine ordinances. Here, intergenerational trauma is perpetuated by the landscape itself, which once held memories of spirituality and healing but now triggers memories of danger, warning and death. Despite the foreboding land mines, every May Day celebration leads hundreds of families to the mountain for picnicking and *kolo* dancing. Upon asking the Novi Travnik Bosnian Muslim war survivors why they return there each year, they universally reply that they want to reclaim the mountain with their present day memories, not only those of the war and remaining threat of landmines. Here is evidence of the intergenerational wisdom propelling the community.

The interrelated themes of oral memory traditions and trauma involving the soma account for the theoretical and application realities of the *kolo*. The expression of the formulaic patterned circle themes across the globe include the soma as well as what the Slavs refer to as the Moist Mother Earth, a body just as alive as the human body. By triggering memory via landscapes and *kolos*, we etch genetic materials for intergenerational transmission. Ashmore and Knapp's (1999: 13) study describes the geographical landscape as a "materialization of memory, fixing social and individual histories in space". We have only to look at the lungs of Sherpa living in the thin air of mile high skies in the Himalayan Mountains to understand how the very land can form our bodies.

Ashmore and Knapp also point to cognitive science's claims that the key to the ways humans memorize lies in the construction of memory rather than on the retrieval of it (1999: 13). Both the living earth and living soma construct memory to narrate story, to provide instructive, meaningful lives. Additionally, Kandel's research on memory from a neuroscientist's perspective reveals that memory is layered by life experiences (2006: 210-12). According to South Slavic oral memory tradition as described in Anna Ilieva and Anna Shturbanova's article, "The Circle is Unbroken," the body is the recorder of life experiences; therefore, all movements stories, dances, songs and daily habits comprise the entire her/history of myths, symbols and archaic intangible legacies (1997: 317). Through the *kolos* as living matter, participants "discover the message handed down to us from antiquity, despite the layers of cultural transformation" (1997: 310). The earth as liv-

ing matter records memory in geological formations, the detritus of past volcanic eruptions and asteroids' impacts millions of years old.

The suffering of survivors of violence across the globe can instruct us about how we can prevent another century of wars. The Kolo Trauma format centers on the marginalized and invisible women as the place and space for creative healing and growth through daily repetition of oral memory traditions. In reality, the *kolos* create space, manifest culture and integrate present day life experiences to pass forward into future generations *through* the body, a living soma that is essentially an eternal communal property. Through sharing women's personal revelations and lessons learned, traumatized local communities heal and focus on building peaceful communities for nonkilling future generations. By nurturing sustainability, vulnerability and truth-telling about war crimes and the economic impacts of catastrophic war, the community can become a place of growth and intensified learning. We are no longer surprised to think that Bosnian circles of women engaged in participatory actions have preserved universal, sustainable ways of dwelling in peace.

This is not to dismiss the gut wrenching laments heard from the *kolo* trauma sites across various geographical landscapes that continuously mirror the patterns of intergenerational trauma within my family of origin. As a Serbian/American daughter whose mother survived concentration camps, when I went to Africa, India and in January 2010, Haiti, I was met with the same universal pattern of intergenerational trauma that I observed in my mother and other Serbian women who had survived WWII. The question at hand is whether the transmission of holocaustic trauma is replacing the South Slavic oral memory practices that utilize memory to involve the soma and mind.

Judith Herman's work on trauma reveals that traumatic memory cannot be encoded as a "normal verbal or linear narrative that is to be assimilated into ongoing life story" (1992: 36). Turning to South Slavic oral memory traditions such as the *kolo* improve witness-bearing capacities by allowing participants to practice the skills of the "witnessing brain" that Rick Hanson and Richard Mendius report improves lifelong learning approaches by activating positive memory while shading negative directions (2009: 177-91).

The Kolo trauma treatment program is profoundly accomplished in dealing with PTSD when accompanied by participants' intangible heritage through oral memory traditions. Only recently has the clinical field been open to approaching trauma through the compelling memories of women's realities living in a world of violence. The Kolo trauma treatment program has been developing and implementing healing for trauma for over a decade, far ahead of many operating psychological approaches and standards that remain ineffec-

tive. The main measurement used for the *kolo* trauma treatment is how the women, themselves, enact and incorporate healing methodologies to become self-sustaining while healing their families and local communities.

Identifying Somatic Folk Psychological Features in the Kolo

For South Slavs, the somatic psychologically-based practice of dancing the *kolo* or being in a circle provides an entrance into states of collective resonance inherent in their oral memory traditions and intangible heritage behaviors. The similarities between synchronized brainwaves among group meditation participants and women experiencing menstrual synchronization are well-noted in scientific research. The physiological states prompt a movement into deeper empathetic resonance with all living soma, resulting in a constant rhythmic pattern in trance, meditation, and the *kolo*. The coalescence of separate individuals into a collective is a psycho-biological and physiological state, and trauma is a psychobiological impact. Reproducing the highly-integrated *kolo* state that is nonkilling in all properties has been complicated by Holocaustic intergenerational trauma, wars and violence. But for the South Slavic war survivors, with their wounded somas and the psychobiological trauma impacts, oral memory traditions and intangible heritage provide access to the states of collective resonance. In Novi Travnik on Friday nights during the summer, the *kolo* is danced at the town's center. The community-wide *kolo* performed in front of the now derelict police station where so many were killed during the Balkan War transforms the stain of Holocaustic intergenerational trauma. With their collective body movements, the *kolo* eradicates intergenerational hatreds with the rhythmic, synchronized dance steps.

Two of the leading researchers in the field of somatic psychology, Pat Ogden and Kekuni Minton, focused their study, "Sensorimotor Psychotherapy: A Method for Processing Traumatic Memory," on how "traditional psychotherapy addresses the cognitive and emotional elements of trauma, but lacks techniques that work directly with the physiological elements, despite the fact that trauma profoundly affects the body and many symptoms of traumatized individuals are somatically based" (Ogden). An intriguing example of a more embodied approach is the silent dance, or *kolovodja*, of Bosnia's Glamoc Valley, where females are regarded as respected leaders and continually welcome female solidarity. *Kolos* and postures gender-appropriately revere the female body in three salient dimensions. One recognizes females as female humanity able to manifest culture. Secondly, the dances manifest culture with birthing, child rearing and death as female cultural encoded potentials. Thirdly, the

meaningful partnership with the Moist Mother Earth is always significantly present. Marler reports in studies completed by mother and daughter researchers Anna Ilieva and Anna Shturbanova for the Bulgarian Institute of Folklore, the *kolo*, or *hora* in Bulgarian, see the chain dance as significant for representing “this huge living body of maidens holding hands, forming the bouenek chain, [with] its own plastic movement, breath and impetus” (Marler, 1997). For nonkilling societies, the inclusion of females and the engendering process at both micro and macro levels is paramount.

Mirka Knaster’s (1996) research on the Czech choreographer and dancer Rudolf Laban’s creation of a system for creating dance scores similar to those created for musicians has been especially helpful for studies of the continuous nonkilling movements found in the South Slavic people’s *kolovodja* and the Bulgarian’s *hora*, both performed through somatic movement and actions rather than verbal expressions. The Laban-Bartenieff system of dance or movement psychotherapy has been specifically utilized for assessment, insight and change and is most useful for mapping the *kolo*’s. Laban researched movements from folk dances and martial arts to daily life motions to find universal structure and purpose in movement (1996: 248-249). By tracing the fundamentals, Laban developed a technique for transcribing dance as we do musical scores. Much like the *kolos* and folk movements, the Laban system can record recurring patterns, noting and then correcting dysfunctional movement patterns. The Mesolithic *kolo* most likely originated to propel the collective community in growth while dealing with any dysfunctional affects or when facing traumatic events. For example, the transmission of life and the honoring of both genders is self-evident South Slavic view of Mother Nature—the mythological figure ‘Baba Yaga’ in the *kolovodja* movement. Because gendercide or gynocide cannot exist in the *kolovodja*, a dynamic movement is prescribed to erase gender violence.

The *vodja* is known as the guide who narrates the ongoing archives of the dance, using bodily cues to introduce step changes and rhythm to ignite new patterns in the *kolovodja*’s form. The leader directs the four physical dimensions of energy, which Rudolf Laban observed as being flow, weighted, timed with spiked movement or sustained, and space as direct or indirect (Knaster, 1996: 249). When mapped, the *kolovodja*’s dance steps are similar to a meandering spiral, which is how Marler described the steps of the Bulgarian bouenek hora (Marler, 1997). The spiral for Slavs and Balkan peoples symbolizes the intergenerational wisdom of the relationship between life and death.

What is perhaps most significant is that the South Slavic *kolo* and oral memory traditions show the body instructing the mind. Neuroscientist Ernest L.

Rossi also observed a generalized paradigm for the four-stage creative cycle that is “replayed” in individual or collective arts, using the neuroplasticity found in learning practices to transform the brain and its neurological responses (Rossi, 2002: 267). The communal inclusion of bodies directing the mind results in a nonkilling society. Rossi’s creative replaying of the four-stage creative cycle is represented by four concentric circles. The inner circle contains the arts or science, the middle circle belongs to psychotherapy, and the outer circle holds mythology, while social/cultural/political processes (including judicial systems) outline the outer rim (2002: 267). The *kolovodja* or *hora* that Marler describes can be seen as metaphorical while somatically engaging all four concentric circles to foster neurogenesis (Marler, 1997). Whether experienced in cosmological modalities or in psychotherapeutic somatic movement, the *kolovodja* and all folk circle patterns trust the lens through which the universe is experienced in present moment. The *kolovodja’s* somatic therapy teaches ethnochoreological movement patterns: while preserving intangible heritage, the *kolo* easily transmits intergenerational wisdom into a conscious community with collective purpose and meaningful somatic experiences. The *kolo* plunges participants into a metaphysical somatic orientation of using the living body to direct the mind. The *vodja* intertwines the energies within the cosmological fields of regenerative somatic properties each time she dances the *kolovodja*. The somatic experience for each individual is as unique as a fingerprint or snowflake, though it is represented within the collective community. The dance itself applies experiential somatic psychology while forging a deepened, if not psycho-spiritual, dimension for friendship and sisterhood—a nonkilling attribute.

The Slavs struggle to feel safe while immersed in the psychopathology of gynocide and gendercide perpetuated by intergenerational hatreds and trauma. Diane Fosha (2000: 47) explains that feeling unsafe creates fear, alarm and anxiety. In contrast, the Slavic *kolo* provides an eternally dedicated and resilient network when facing life’s challenges and traumatic events. The collective circle is healed as women stand shoulder to shoulder by being in a circle, *kolo* dance or song. Fosha’s affective somatic psychology research connects these types of interactions to the honing of our abilities to navigate the relational world (2000: 28).

Handing Down: The Intergenerational Aspects of Space and Somatic Psychology

Consider how ‘places’ are the landscapes decorated by and comprised of females’ common daily experiences, symbols, and their interpretations. In

terms of locales and the wider context of the cultural and the earthly landscapes, place and space conspire to speak today of the narratives played out in the lives of our ancestors. The *kolos* are spaces and places which were intentionally manifested for the South Slavs' oral memory practices and are best suited to present the fundamental way that the *kolo* considers actions created, repeated, reproduced and elementally charged through meaningful agency. The weave for the round dances, as much as the weave of geographical landscapes, imparts a sense of place. In *Space and Place*, Yi-Fu Tuan eloquently explains, "If space allows movement, place is a pause, and body is 'lived body' and space is humanly construed space" (1977: 35).

Place and space require postures. "Postures" can refer to our physical body, but also, to the postures that memories hold. The horizontal and vertical postures found in the round dances of the *kolos* are equally compelling. In the constant reconsolidation and layering of memories, the mass rapes in Bosnia or the Congo sit strongly in the postures of modern females, now targets for sexual abuse and subsequent PTSD memories. One Bosnian middle-aged woman from Buna, near Mostar, expressed relief that her raped sisters did not carry children as a result. I asked why, since children are so sacred for South Slavs. She sucked her cigarette stating that men harbor such secret envy and violent desire to be round like the earth, as expectant mothers naturally become during pregnancy. Was she describing Karen Horney's "womb envy", in accurate Jungian terms for a South Slav? I know she would not have had access to Karen Horney's work nor that of Marija Gimbutas, but, for her, the issues hung on the body, the living soma. A war had been declared against female bodies, and thus all bodies were targeted.

This is where place identifies the thread of a narrative from which women can heal from the vast assortment of violence against them. It is substantially difficult to engage with the South Slavic oral memory practices amid the slaughter of female worth and lack of honor towards her gender. Phyllis Chesler (2001: 103-120) explores how women have metabolized their worthlessness until female solidarity is eradicated. She describes an eerie silence about the indirect aggression women perform through holding grudges, gossiping, and excluding each other from community. Significantly researched, Chesler's argument that women are sexist towards their own gender and the main purveyor of hatreds towards women is a chilling testament to the loss of female solidarity.

Digging more deeply into the research on female solidarity, we find significant work on menstrual synchrony in humans. The study by Knight and Butler (2005: 14-15) actualizes the female soma by examining menstrual

synchronicity's connection to female solidarity. Arguing that culture is a symbolic living organism emerging from females' intimate cycles of equality, social inter-relationships and collective ritualistic traditions, it describes the husband and wife bond as a microcosm of the polarized gender-solidarity or killing society we have today. Furthermore, Knight and Butler claim that the vastly important menstrual cycle is a phenomena that "explains all social life in terms of constraints imposed by 'selfish' self-replicatory interests of genes" (2005: 15). Through menstrual synchrony, reproductive and sexuality behaviors and cycles occur become a barometer of power and collective community inter-relationships (2005: 212). The *kolovodja* with its shoulder to shoulder replaying of a pattern synchronized through the ages becomes a symbolic metaphor of menstrual synchronicity and women's capacity to manifest a nonkilling culture. The *kolo's* foundation in female solidarity confronts males' killing and sexual assault by establishing a sense of place that promotes egalitarian collective communities.

It is also worthwhile to note that in the abject disaster of a century of wars, the South Slavic women continued to pull together scraps of both Megalithic and modern memories to create a space in which to situate their catastrophic memories. The leader of the *Kolo Sumejja* in Novi Travnik remarked often that women often bonded over stories of sharing the only spoon in the flat of apartments and meager food rations during the war. I asked about the ways in which they bonded out of strength rather than the posture of victims. My question was never answered verbally; instead, I observed the South Slavic oral memory traditions of the *kolo* as a lived sensorimotor psychotherapy response. Igniting female solidarity while dancing or being present in the *kolo* has revived menstrual synchrony and, as most Bosnian-Herzegovina war survivors have remarked, their cycles became one.

Tilley (1997: 16) describes space as where patterns weave intentionally, inviting bodily movement or the perception of movement in contrast to a life-space where memories are etched and where feelings are felt in their entirety. The very name of the round dance, *kolo*, refers to geographical landscapes, and more importantly, the landscapes of our lives are given a living place and space (Jankovic, 1951). Clearly invested with memories that shape meaning and vital significance, the *kolo* is the pause that allows place to manifest. Place, the essence of geography, inscribes memory to transform our understandings of what was experienced in the past. The ritual round dance organizes the age-old wisdom of the Moist Mother Earth, a megalithic geodetic unit, into the present moment.

But how to pass down the memory processes of consolidation and reconstruction, the peace practices, so that they are as memorable for future generations as they are for the present one? Christine Caldwell's "Moving Cycle" declares the spiral of human life experiences as the core to healing, growth and conscious evolution: "To move is to be alive; this principle is echoed in every beat of our heart, every breath of our lungs and every gesture of our hands" (1997: 101).

Treating Holocaustic Trauma in Novi Travnik and Ahmica, Bosnia-Herzegovina

I both treated trauma and learned about trauma from Muslim women who'd survived war crimes in the village of Ahmica and the small town of Novi Travnik, Bosnia-Herzegovina. Novi Travnik has been catastrophically targeted for their munitions factory, producing a mass of war and war crimes survivors. The Novi Travnik Bosnian Muslim female war survivors organized a *kolo* called *Sumejja*, named after a martyr in the Koran. The small *kolo* of some thirteen to twenty two women spoke of not being visible to funding entities during and after the war. Faced with the prospects of yet another major clean up from the bloody conflict, the Muslim women war survivors were not only overwhelmed by the ruins of buildings and homes; they cited that hunger, freezing cold winters and reparations effects were among their smallest obstacles when trauma itself pervaded their families. Many of the women reported that while they originally resented the lack of aid, they'd discovered that by tapping into archaic oral memory traditions and practices, their abilities to heal trauma in their local community flourished. On April 16, 1993, 150 Muslims in Ahmica, mostly elderly and children as young as infants were slaughtered by Croatian war criminals during the early morning call to prayer. The Ahmica Bosnian Muslim grandmothers lament that all they'd once had, their families, had been slaughtered. The survivors of this bloody genocidal war faced economic strife because their very names made procuring work in the mostly Croatian settlement impossible. The women of Ahmica organized their *kolo* and made handicrafts. Since both *kolos* are only two kilometers apart, they maintain close ties of support and peace. During the Balkan War, the throughway that connects the two communities was known as Death Highway, but despite their locations on the frontlines of catastrophic conflict, the women do not speak of intergenerational hatred. Instead, they work to prevent other women from ever experiencing their grief and loss.

The war crimes survivors' intuition is to find meaning in gendercide, gynocide, and genocide by living peaceful existences in their own communities. The aftermath of genocidal war destroys hospitals, schools and mental health institutions. The intangible intergenerational heritages passed through oral memory traditions are all too often eroded and eventually annihilated as well. The exception, however, in this case was a group of South Slavic women with no funding. These survivors' marginalized status made them more aware and attuned to the resources to be found in archaic oral memory traditions.

The intergenerational transmission of oral memory traditions is excavated from the rubble of Holocaust violence. Though the women war survivors were for the most part unaware of the anthropological and archaeological prehistory, they were able to remember both implicitly and explicitly how the sacred *kolo* manifests peaceful culture. In "The Roots of Lepenski Vir Culture," Dragoslav Srejavic describes the *kolo*, danced in the form of a circle, as having an explicit expression of outward behaviors and responses with the rounded houses and temples (Gimbutas, 1989: 284). Interestingly, among the rubble of their homes and buildings, the Muslim women war survivors noted that in the past ages the oral memory traditions were expressed in clay bricks, cement and mortar. In their pursuit of a nonkilling society in the aftermath of war, they literally used the strewn bricks and mortar as foundations for their archaic practices. The building of a *pech* (Serbo-Croatian for fireplace) from the ruins of bombed and mortared homes, became the first priority for survivors, followed closely beginning self-sustaining gardens regardless of how little room one had to farm. Seeds began to sprout on the smallest balconies of flats. These South Slav suggestions of a return to the Moist Mother Earth also suggest a return to the folk somatic psychological movements and formulaic patterns honed in the *kolo*.

The very same technology to rebuild after disasters is shown in the thousand year (6,500 to 5,500 BCE) settlement of Lepenski *Vir*, which is now under water due the building of a dam. *Vir* in Serbo-Croatian translates to whirlpools. The Mesolithic settlement once faced the Danube River where the water flowed into great whirlpools in direct view of fifty temples. Archeologists surmise Lepenski *Vir* as a ritual space for the burial of children. Gimbutas (1989: 284) describes Lepenski *Vir's* houses as facing the Danube River with one rounded end outward angle of the circle's symbolic 60 degrees, as if to continue the *kolo's* iconic representations replicated in brick and mortar.

Essentially, the South Slavic women war survivors' daily small acts of rebuilding among the ruins of brick and mortar are actualizing intergenerational wisdom. Not only surviving but thriving in the aftermath of trauma via the

kolo requires collaboration and solidarity. Through this unification, what is implicit—the visceral, instinctual and emotional states within the South Slavic culture and female humanity—becomes explicit in brick, mortar and agricultural harvests to create peaceful and harmonious community. The truest art form of Lepenski *Vir* and the Neolithic “Old Europe” was the nonkilling society. Death, according to Slavs, was earned and performed with dignity as one aged, faced natural disasters, or drought, not machetes, guns or missiles.

Somatic Folk Psychological Approaches

Big boned with large hands and feet, Fatima, a widow who has buried two husbands and two sons, gazes at her hands and says, “I buried my husbands and sons with these hands.” Fatima was known to sleep on her sons’ graves in the Muslim graveyard outside Novi Travnik, Bosnia. “I’d walk there with these feet,” said Fatima. Her second husband was a Croat, making their entire family a target of intergenerational hatred, especially from her brother-in-law. Fatima described how the Croatian military knocked on her front door of her house, where her family had been imprisoned throughout the Balkan war, to inform her of her son’s death. Upon hearing the news, her Croat husband shot and killed himself.

Ethnic hatreds based on religious divides were repressed for fifty years under Tito’s communist rule. Fatima spoke of her in-laws’ hatred of her and her son. Fatima reported that her husband’s son was present when her own son was killed. The army told her that they were playing roulette. However Fatima told me that she knows the intergenerational hatred of Muslims too well. I searched her face for any sign of hatred or malice in return, but I found only a mother’s sorrow for not being able to protect her son and regret for earlier decisions that set the course of fate.

When I was first introduced to Fatima by the leader of *Kolo Sumejja* women, the *kolo* leader spoke of her sleeping on her sons’ graves and how depressed she was. I realized that Fatima was triggered by the landscape, the cemetery and stones that marked her son’s graves. Coaxing her to become more involved in our *kolo* meetings, I saw Fatima slowly move away from depression. At one point in our *kolo* gatherings with Fatima I told her in no uncertain terms that I could not sleep on the cold graves with her. Fatima said she would never ask me to do so, but I explained to her that if I wanted to visit her at night, I would have to go to the graves where she sleeps. One thing South Slavs cannot bear is shame for failing to be extraordinary hostesses. By finding a way to convert the shame into friendship, we

created a space for intergenerational wisdom to flourish in a peaceful community. She stopped sleeping on the graves because she could never know when I would come to visit. Fatima asked in all seriousness, "What would it look like to have an American/Serb woman sleeping on Muslim graves?"

Despite her preservation and guardianship of friendship, Fatima's body screamed of loss and grief: her right leg was in constant pain and she suffered from debilitating back pain. Her sister, years older, was handicapped with a stiff left leg. Fatima was always first to point out her sister's talent for singing South Slavic women's songs, as if the gift was the result of her rigid and useless left leg. Fatima, who did not dance the *kolos* but actively preferred the circle of women, started to prepare extraordinary meals. The abundance of food spread across the table would have me searching for her two husbands and two sons to partake of the feast. When I pointed this out, the moment exploded in a powerful current of suffering and agony over the loss of her family members. Fatima would later tell me that she was subsequently able to absorb their deaths more deeply. Through her solidarity with her sisterhood *kolo*, she recognized that her chronic pain had become the seamless flux of trauma struggling for respite. She discovered that her leg and back pain disappeared while cooking, caring for chickens, or gardening, and later reported that culinary practices, breathing and daily life had replaced her chronic body pain.

Conclusion

The *kolo* and South Slavic oral memory traditions pointed to a method for building female solidarity in the aftermath of a century of wars. The production of killing societies has eroded, perhaps radically, females' worth and their contributions towards nonkilling communities. Though often overlooked, the earliest origins of sensorimotor psychotherapy, clearly evolved the human species in eras preceding the catastrophic manmade violence we know today.

The rich totemic rituals and oral memory traditions are derived from and propelled by the intergenerational wisdom filled with peaceful, life-inducing properties that manifest culture. We have been so indoctrinated with the belief that only men can rule the world and bring order to chaos while women are confined to less worthy, subordinate roles that we are sometimes incapable of seeing how the South Slavic and global oral memory traditions are the only lived egalitarian nonkilling practices and somatic behaviors. Riane Eisler's millennium book, *The Chalice and the Blade*, determined that the dehumanized view of women from the pre-biblical era to the "mass

of biblical prescriptions and proscriptions” was constructed to invest males’ ownership of females as a protective right and entitlement. The result was the erection of a continuing threat to the rigidly male-dominated killing society (1988: 96-97). The Kolo: Women’s Cross Cultural Collaboration trauma treatment and training creates a space for the South Slavic oral memory traditions to burst forth in amazing alacrity and somatic depth from the rubble of a male-dominated, organizationally-institutionalized psychology.

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An Educational Model for Teaching a Nonkilling Ethic

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Any deed that any human has ever committed... is possible for any of us.
(Zimbardo, 2007: 211)

Every day people buy products whose origin is unknown to them, such as diamonds, chocolate, or roses, products linked to murder, slavery and environmental degradation—all are types of killing. Yet few people are aware of how their choices support such horrors. Ethics requires care about and an awareness of how one's actions affect others and taking appropriate action. However, today most people behave in ways that perpetuate harmful systems. How do we make people care, aware and prepared for moral action? Systems, situations and selves each contribute to the complexity of ethics. This chapter will address the psychological roots of ethical judgments and moral development and the role of education in forming a psychology of nonkilling in human persons and human systems.

To understand the role of education in confronting killing, it is important to first understand the psychological and ethical roots of killing and nonkilling. To any given situation, whether momentary or sustaining, individuals bring a history that includes their conditioned selves (epigenetic dispositions shaped by others during sensitive periods) and cultivated selves (habits, beliefs, values, practices). This conditioned, cultivated, and biological person responds to and engages with the world, including the larger human community in the form of systems and the situations those systems create. Every person is psycho-ethically influenced by systems, situations, and the conditioning and capacities of the self. We analyze ethical pressures from evolutionary, neurobiological and developmental perspectives using triune

ethics theory (Narvaez, 2008). Second, we turn to the role of education in developing ethical systems, situations, and the self. In particular, we focus on the Integrative Ethical Education (IEE) model, which provides a framework for promoting individual and group change through the teaching of ethical skills (Narvaez, 2008). Educators can specifically target ethical sensitivities, motivations, judgments and behaviors related to killing and nonkilling.

Psycho-Ethical Roots of Killing and Nonkilling

Research has shown there are multiple sources of human behavior. We simplify these forces into three categories: systems, situations, and selves. The self, for the purposes of this paper, is defined as our conditioned, cultivated, and biological internal systems as well as our social and effective capabilities.

Systems and Situations

Zimbardo (2007) suggests that the 'higher-order factors,' such as the organization of power, are central in determining a person's actions. Generally, people function in several systems at once. For example, in the United States people exist simultaneously in a democratic system and a capitalist system. Democracy organizes political power and the capitalist system organizes economic power. Watching government behavior, it is easy to see how they operate in overlapping ways. Systems create situations through rules and roles. For instance, people in a democracy are required to follow certain agreed-upon rules, including those laid out in the Constitution. They are also expected to play certain roles, including citizen, voter, organizer, and monitor of the balance of power.

However, while systems are necessary for organizing and maintaining sources of power they are not morally neutral. In fact, according to Zimbardo (2007) all systems have moral requirements of their participants. Moreover, systems often become independent of their creators, evolving in unpredicted and uncontrolled directions. When these directions turn morally questionable, systems can become corrupt, forming 'hierarchies of dominance' (Zimbardo, 2007). These corrupt systems can then create situations that overwhelm an individual's normal order of desires, thereby creating internal conflict, especially in unfamiliar circumstances. As the system breaks down the individual's moral compass, demanding a new set of desires, the individual becomes increasingly confused and conflicted about his or her morals and choices. Over time, even in a brief amount of time, the system and situation together can form a 'crucible' of effects resulting in learned helplessness or

violent revolt. A system of dominance can become so singularly powerful that it creates situations where people are led to act in fearful or raging behaviors.

This is especially true of a corrupt 'total system'—an all-encompassing situation in which a person does not have access to social support systems and information networks. When people are immersed in a "total system," human nature is altered in ways that challenge the individual's stability, personal consistency, character and morality. A total system can bring about what looks like a 'disengaged morality,' in which situational forces overwhelm and direct a participant's choices rather than being directed by the person's skill, deliberations, or intuitions. An apparent 'disengaged morality' results from the system's ability to corrupt and manipulate human needs and desires through dehumanization, anonymity, deindividuation, participants cynical view of the system (fair and trustworthy?), internalized oppression or self-suppression, identification with the aggressor, habituated and uninterrupted deception, rationalization, fear of rejection, and so on (Zimbardo, 2007). However, moral disengagement is only seemingly so, as people always act based on a set of ethics; it is simply the ethical frame that changes.

'Total systems' can overwhelm a person's sense of self and ethics, leading to an act of killing. This is true in abusive relationships, war and oppressive situations like Zimbardo's prison experiment. The power of a total system is evident in combat zones, which produce "atrocious-producing situations" (Hedges, 2011: 223). Soldiers report the high intensity of war, constantly being on alert for their own mortal safety, resulting in the instinctual action of removing sudden threats so quickly and fully that civilians can be killed in the process. For instance, the intensity of war for soldiers riding in armored patrol trucks on constant alert for improvised explosive devices and hidden combatants is so strong that the first indication of an enemy presence can result in a wide range and indiscriminate use of firepower. Situation-specific instincts indicate to the soldiers that this is necessary, but later reflection can leave feelings of guilt, as outside the moment of intensity, the actions are harder to justify.

The Self and Multiple Moral Selves

Individual selves react to system and situational forces. Triune Ethics Theory, TET (Narvaez, 2008) addresses the moral self-in-situation. Integrating findings from neurobiology, cognitive science, and affective neuroscience, TET does not emphasize deliberative reasoning, but what underlies human reason, "motivational orientations that are rooted in evolved unconscious emotional systems shaped by experience that predispose one to react to and act on

events in particular ways” (Narvaez, 2008). These ‘emotional command systems’ assist animals in adapting to ever changing and new situations. Further, TET emphasizes how early social experience shape these emotional systems.

TET details three affectively-rooted moral orientations which have emerged from human evolution. The first and oldest of the three moral orientations is the Ethic of Safety (also called the ethic of Security), focused on self-preservation through self-protection, personal status, and ingroup dominance. The Ethic of Engagement represents relational attunement found in face-to-face affective relationships with others, particularly through caring and social bonds. The Ethic of Imagination, coordinates the older parts of the human brain, using reasoning for the purpose of adaptation to ongoing and future complex human social relationships. Each orientation is a mindset that can shift ethical norms. This is explained in more detail below. Systems, in the form of situational forces, interact with the individual’s capacities and conditioning, eliciting or ‘priming’ specific moral orientations in conjunction with the individual self.

The Safety Ethic is found in the R-complex or extrapyramidal action nervous system, the basal ganglia and lower limbic system. These systems, related to survival and thriving in context, therefore contain the basic emotions of fear, anger, and basic sexuality. They relate to territorialism, imitation, deception, power struggles, and following routines. Present at birth, these systems are conditioned by early experience and shared with most animals. The separation distress system is also a vital part of mammalian survival, as infants cannot live without parental protection and care. In humans, these systems may be related to conformity and submission to authority out of fear of separation. The Safety Ethic becomes the ‘default’ ethical system when other systems fail.

When the Safety Ethic is stimulated it generally focuses on activating what has worked in the past, so habitual routines can be initiated automatically from conditioned experience. These brain systems generate a self-focus but remain ‘calm’ when the environment is perceived as safe and routines can be followed. Self-protective behaviors and values of these brain systems guard both the individual and the ingroup. In individuals, when physical survival is threatened the parasympathetic system can trigger the fight-or-flight (rage) system, leading to a “bunker” ethic, or the sympathetic system can trigger the freeze (fear) system, leading to a “wallflower” ethic. This ethic prioritizes strengthening ingroup boundaries and succumbing to authority, as noted in studies of terror management (Rosenblatt, Greenberg, Solomon, Pyszczynski and Lyon, 1989; Nisbett and Cohen, 1996), therefore creating an attraction to ‘strongmen’ and tough policies on out-group persons (Jost, Glaser,

Kruglanski, and Sulloway, 2003). For instance, when group self-preservation is threatened, tribalism, rivalry, or revenge can be triggered. These phenomena, based on an instinctual fear of strangers in all animals, are also known as a 'superorganism' or mob mentality. In fact, when the rage system is active, revenge actually generates a chemical reward in the subcortical regions of the brain deepening the conditioning (de Quervain, et al., 2004), suggesting that revenge can become a conditioned habitual response.

The Safety Ethic has as its virtues allegiant ingroup loyalty (not the loyalty of love), self-control (especially of soft emotion), and obedience. However, they are so powerful, that they can override the rest of the brain when activated for self-preservation (MacLean, 1990). Once activated, the Safety Ethic can dominate the process of ethical action, overlooking critical information, relationships, and feelings in the sole pursuit of reestablishing a known position of security. The safety mindset is often maintained in groups through shaming, threat, and deception techniques (Shaver and Mikulincer, 2007; Staub, 1992). When the Safety Ethic is acting as the primary or highly dominant ethic, it is prone to ruthlessness and attaining a security goal at any cost. Such single-mindedness can lead not only to decreased sensitivity towards those whom perceivably interfere with security goals, but also an inability to change goals and action plans. More so than the other ethics, the Safety Ethic decreases sensitivity to others and higher moral goals (e.g., Darley and Batson, 1973). For example, the individual becomes less responsive to helping others (e.g., Mikulincer, Shaver, Gillath and Nitzberg, 2005).

The Safety Ethic, stemming from older parts of the brain, is part of lower evolution and therefore represents the most basic goals of evolution, goodness of fit and self-interest (Loye, 2002). However, the driving force of human evolution is in the "moral sense" (Darwin, 1871/1981), whose primary roots are in the parental instincts, which underlie the Ethic of Engagement.

The Ethic of Engagement is rooted in the upper limbic system and related structures, also labeled the visceral-emotional nervous system on the hypothalamic-limbic axis. It is this part of the brain that drives mammals, emotionally speaking, toward play and care/love. Play is a drive among mammals that is dominant among youngsters as it facilitates social relations and wellbeing for life. When children don't play enough, they are susceptible to disorders like ADHD (Panksepp, 1998).

Early care shapes the integrity, function and integration of multiple systems (Narvaez and Gleason, in press). These systems are 'co-constructed' with mammalian caregivers and formed over an extended period of childhood development. Mutually-responsive care (Kochanska, 2002), creates a

strong social bond and well-functioning emotion systems that guide adaptation (Schore, 1994). However, the development of the moral sense, which may be humanity's greatest achievement, may be under threat from an abandonment of evolved principles of childrearing (Narvaez, Panksepp, Schore and Gleason, in press) and perhaps social living (Narvaez, Panksepp, Schore and Gleason, in press). Ancestral parenting practices, evolved over millions of years, included natural childbirth, years of nursing on demand, nearly constant touch, prompt responses to infant needs, and multi-age play groups, all of which have significant effects on brain and body development but which have been diminishing in the USA for some time (Narvaez, Panksepp, Schore and Gleason, in press). The significance of supportive infant care to properly generate a mammalian brain's emotional circuitry has been evident since Harlow's experiments on monkeys (for a review, see Harlow, 1986). The infant's nervous system is dependent on experience guided by the caregiver as an 'external psychobiological regulator,' fostering the child's sociality and ability to communicate, relate, and connect with another mammal's inner states (Lewis, Amini and Lannon, 2000). Moreover, care affects cardiac vagal tone and neuroendocrine systems, which are critical for managing stressful situations. This includes lowering peptidergic systems responsible for defensive behaviors associated with anxiety, fear and stress, thus allowing for greater social interaction and development of bonds in times of distress.

Inadequate or poor early care can set a low threshold for activating stress response systems in social situations undermining social bonding, effects that can persist throughout the lifespan (Ochsner and Gross, 2007: 103). Again, human nervous systems require caregiver co-construction, as human babies are born with only 25% of their brains complete, unlike any other animal. Thus, caregiver 'training up' of a baby's self-regulation is vital in managing stress response (which underlies the Safety Ethic) and facilitating the growth of prosocial systems (underlying the Engagement Ethic). Without limbic regulation, mammals develop fickle systems that daily activities easily overwhelm. Abused and neglected children develop disorganized systems similar to those of isolated monkeys. "Because the primate brain's intricate, interlocking neural barriers to violence do not self-assemble, a limbically damaged human is deadly. If the neglect is sufficiently profound, the result is a functionally reptilian organism armed with the cunning of the neocortical brain (Lewis, Amini and Lannon, 2000: 218)." Care-deprived infants develop aberrant brain structures and brain-behavioral disorders which lead to greater hostility and aggression towards others (Kruesi, et al., 1992). Finally, there can be a generational degradation as low-nurturing families or

groups form individuals with higher risk of providing lowered nurturing care to their offspring compounding the possibility of deteriorating bonding and brain integrity over generations (Weaver, Szyf and Meaney, 2002).

Proper care then is required for normal formation of the brain circuitry responsible for sociality and accompanying moral functioning. Evolution prepares the brain for social engagement and moral agency, similar to the way evolution prepares the brain for learning language. But in both cases particular early experience appears to be required to foster capabilities (Narvaez and Gleason, in press).

The Imagination ethic, residing primarily in the prefrontal cortex and related structures represents the third strata of human brain evolution (MacLean, 1990). The prefrontal cortex (PFC) is vital to creativity, flexible thinking, and perspective taking. The PFC is the only part of the brain capable of interpreting or integrating internal stimuli or information with external stimuli or information (Goldberg, 2002). This area of the brain reaches its greatest size in humans. Key areas in the PFC that relate to moral behavior include the orbitofrontal cortex (OFC) and the anterior cingulate cortex (ACC). Found only in apes and humans and formed after birth, converging evidence suggests that the ACC is also critical to life-long emotion regulation, empathy and problem solving, and is equally reliant on caregiving for optimal development (Allman, Hakeem, Erwin, Ninchinsky and Hof, 2001).

Like the brain areas related to the Engagement Ethic, the development of brain areas related to the Ethic of Imagination requires a nurturing environment or else they may never be wired properly or established very strongly. The prefrontal cortex and its specialized units take decades to fully mature and are subject to damage from environmental factors both early (Anderson, Bechara, Damasio, Tranel and Damasio, 1999; Kodituwakku, Kalberg and May, 1999) and late in development (Newman, Holden and Delville, 2005). Schore (2003a; 2003b) marshals a great deal of evidence to show how the development of the orbitofrontal cortex (OFC) not only is vital to lifelong emotion regulation but is highly dependent on early co-regulation by the caregiver in the first months of life. For most people, an active Engagement Ethic may require a stable, caring, and safe context where the individual experiences a sense of belonging. This is exemplified in research showing children in caring classrooms tend to be more pro-social (Solomon, Watson and Battistich, 2002).

Early life stressful experiences may permanently damage the OFC, predisposing the person to psychiatric diseases such as depression or anxiety and suboptimal social and emotional functioning throughout life (Schore, 2003a, 2003b). Even with nurturing care early in life, the prefrontal cortex

is susceptible to damage in adolescence and early adulthood, as it is not fully developed until the third decade (Giedd, Blumenthal, Jeffries, et al., 1999; Luna, Thulborn, Munoz, Merriam, Garver and Minshew, 2001). For example, the prefrontal cortex may be damaged by behavior choices, such as binge drinking (Bechara, 2005), or extensive violent videogame play which suppress activation of the prefrontal cortex even during normal problem solving, turning normal brains into ones that look like those of aggressive delinquents (Mathews, Kronenberger, Wang, Lurito, Lowe and Dunn, 2005). Orbitofrontal cortex damage leads to poor impulse control, dysregulation of emotion, and an inability to foresee consequences. Patients with OFC damage behave like immature adolescents, and, in severe cases, are plainly antisocial. They are unable to control impulses because their volitional control is damaged (Goldberg, 2002). As the association cortex for social behavior, the PFC generally appears to contain “the taxonomy of all the sanctioned moral actions and behaviors” and its damage may lead to “moral agnosia” (Goldberg, 2002).

TET suggests that ideal moral functioning resides in the coordination of both the conscious and unconscious mind. The Ethic of Imagination coordinates, then, the intuitions and instincts of the Engagement Ethic and Safety Ethic which operate on conditioned and implicitly extracted moral principles. The Imagination Ethic assesses the ‘multiple elements’ that are involved in moral decision-making in a particular situation, elements such as situational pressures, contextual cues, social influence, goals and preferences, mood, energy, environmental affordances, logical coherence, self-image, and prior history (Narvaez, 2008). Best keeping the self-preservation systems calm, the Imagination Ethic utilizes perspective taking, foresight, and reasoned argument to reflect abstractly and deliberately about moral options. The capacity to deliberate develops slowly over time with maturation (the PFC is not completely developed until the third decade) but also with experience and training. Some aspects of deliberation that are well rehearsed become automatic and unconscious, as with any expertise. With intellectual knowledge and deliberative skills, a person can reflect on the virtuousness of an action (Arpaly, 2003) and even deliberate about which environments to select to form their instincts (Hogarth, 2001).

Moral behavior can be affected by immature brain development, damage to systems from physical or drug abuse, or a habituated self-protection focus. Keeping intact and nurturing the executive functions vital for the Imagination Ethic and the emotional regulation systems vital for the Engagement Ethic are critical for keeping under control the source of impulsive killing, the Safety Ethic. But cultural narratives and conditioned cultural

response can also foster killing, which is the way that the Imagination ethic can become vicious and foster painful killing, as in Nazi Germany.

The relationship between systems and the self

The relationship between systems and the self is mutually influential. That is, systems and the situations they create act as ethical 'primes' for personal action. A situation's forces can activate one of the three ethical orientations, which are dependent on the interface between the person and the situation (Lapsley and Narvaez, 2004). When a situation activates an ethic, the person-by-context interaction influences perceived affordances (social, physical and action possibilities), perceptual sensitivities (Neisser, 1976), behavioral outcome expectancies and preferred goals (Mischel, 1973: 270), affective expectancies (Wilson, Lisle, Kraft and Wetzell, 1989), and rhetorical susceptibilities (attractive fallacies). For example, when the Safety Ethic is operating one notices the aspects of an environment that enhances self and in-group. Terror management studies that prime for the safety or Engagement Ethic manipulate whether the participant shows compassion or not (e.g., Mikulincer, Shaver, Gillath and Nitzberg, 2005). However, it is important to remember the 'person by context' interaction (Cervone, 1999). Not all individuals are affected by primes for self-concern. For example, although a situation may provide aggression cues which can encourage hostile thoughts, a person with a disposition high in agreeableness may respond instead with prosocial thoughts and actions (Meier, Robinson and Wilkowski, 2006). That is, a person with a strong Engagement Ethic can guide calm the Safety Ethic's concerns and move toward more prosocial and caring action (Narvaez, 2008). Moral exemplars are able to keep the Safety Ethic calm when in a distressing situation affording the possibility of considering a wider array of possible actions (e.g., Frankl, 1963). Again, systems create these charged situations.

However, the self can also privilege one of the three ethical systems based on conditioning (e.g., "be afraid of black people") or self-cultivation (e.g., "reading right-wing diatribes"). In this case, one of the three ethics may become a dispositional orientation, a primary or base position in the self. This is evident among subjects in Milgram's experiment of obedience to authority. Those with more sophisticated moral reasoning often quit the experiment (Milgram, 1977). Cultivated, conditioned, and biological/genetic factors all affect the self's disposition. Some of these factors can be under the person's control (habits), and others are not (genes and early epigenetics). These tendencies are formed from childhood environmental support in formative years and later in significant life experience. For example, if a

child has secure attachment or support *system*, they generally exhibit compassionate behavior (Mikulincer, Shaver, Gillath and Nitzberg, 2005). Further, if a person has poor attachment in early childhood which develops into an attachment disorder, they can be less empathetic and receptive to others (Eisler and Levine, 2002; Mikulincer and Shaver, 2005). This lack of attachment and bonding is associated with a 'stressed brain' resulting in poor social abilities. "Stress during infancy that is severe enough to create insecure attachment has a dissociative effect, disrupting right hemispheric emotional functioning and species preservative behavior, and a permanent bias towards self-preservation can become an adult trait" (Henry and Wang, 1998). This 'bias' or tendency manifests the accompanying Ethic of Safety. When one's environment, or network of systems, is perceived as perpetually threatening, self-protection may become the dominant orientation of the self (Eisler and Levine, 2002). Another example is found in the research of Caldji, Diorio and Meaney (2003). Their work with rats found that "the brains of infant rats subjected to stress from parental care are permanently altered in GABA-ergic function in the ventral medial prefrontal cortex and the amygdala. 'Chronic stress increases the ability of the amygdala to learn and express fear associations, while at the same time reducing the ability of the prefrontal cortex to control fear,' leading to a vicious cycle of greater fear and reactivity (Quirk apud Narvaez, 2008). However, an inner self oriented toward the Ethic of Imagination can see more than immediate self-interest and *imagine* alternative systems, reflect with detached judgment on moral problems, and resist unhelpful instincts and intuitions (Bandura, 1999). Further, with both Imagination and Engagement Ethics, an individual can act altruistically, contra-situation, in security charged situations (Frankl, 1963).

Role of Education: Shaping the Self for Moral Optimization

From this research, then, we have learned that both the self and systems are involved when killing occurs. We have also learned that a strong self requires early formation, co-construction by caregivers and systems which promote proper moral development and action. Finally, systems require proper oversight, keeping them morally in check lest a system turns oppressive, leading to inefficiency, ineffectiveness, and destruction of persons and the greater environment. How about formal education? We discuss how education can provide optimal situations for the development of nonkilling selves. We suggest a framework, the Integrative Ethical Education (Narvaez, 2006), answering the question of what and how to teach.

How do we teach? Education as a System

IEE highlights those specific aspects of a humane system that provide optimal situations for the development of nonkilling selves. The four aspects suggested here are expertise development, well-structured and caring environments, active communal involvement, and the encouragement of self-regulation. Together, they create an optimal environment for training the self for the coordination of the Safety, Engagement, and Imagination Ethics.

Expertise Development. Humans have a mostly subconscious 'bounded rationality,' which applies 'good enough' heuristics for solving life's challenges (Gigerenzer and Selten, 2001; Kahneman, 2003). Built from recurring experiences, some initially conscious, heuristics are intuitions that are coded in implicit memory systems (e.g., 'don't rock the boat'). Sometimes these intuitions are not verbally expressible (Hasher and Zacks, 1984; Keil and Wilson, 1999). Many actions are chosen without formal reasoning, but through pattern recognition, as exemplified in experts when their skills are habituated and unmediated (Bargh and Ferguson, 2000). In fact, physiological perception and behavior are closely intertwined (Hurley, 2002). For example, biochemical-physiological states or "somatic markers" built from frequent experience often drive decisions and resulting action (Damasio, 1999). Most learning occurs effortlessly from the patterns implicit in the environment including cultural practices, and manifests itself without awareness. If most human behaviors are not consciously controlled but automatic (Bargh and Chartrand, 1999; Bargh and Ferguson, 2000), there are implications for moral education (Lapsley and Narvaez, 2004; Narvaez and Lapsley, 2009). The conscious system and systems outside of conscious awareness all benefit from intentional environments that foster good intuitions and understanding, a characteristic of expert training.

In recent years it has been apparent to researchers that all learning is expertise development (Bransford, Brown and Cocking, 1999). In expert training individuals begin as novices and develop skills and capacities towards expertise. Thus in every domain one can structure instruction for expertise development based on what is known about how expertise is best generated (Hogarth, 2001). Narvaez has brought this approach into the realm of moral or ethical development with the Integrative Ethical Education model, IEE (Narvaez, 2006, 2007, 2008). Traditionally, expertise is obtained through apprenticeship (Rogoff, 1990; Rogoff and Lave, 1984; Bransford, Brown and Cocking, 1999). In an apprenticeship model, the mentor demonstrates, guides, and directs learning and performance. The novice is immersed in real-life situations, extensively practicing and focusing on skill development under

expert mentoring, which facilitate the development of appropriate intuitions (Ericsson and Smith, 1991). As Narvaez (Narvaez et al., 2004) points out, expertise instruction best follows a pattern of immersion that starts with exposure to multiple examples and opportunities, attention to facts and skills, practicing procedures, and integrating skills across multiple contexts. We discuss specific ethical skills below.

This immersed-situational approach coincides with Zimbardo's recommendations for *good* systems. However, it is important to remember that expertise can run in both directions. That is, humans can perfect dysfunction and antisocial behavior. "The potential for perversion is inherent in the very processes that make human beings do all the wonderful things we do" (Zimbardo, 2007: 229). Just as communities can promote hate and dysfunction, students can perfect vices using the same methods described above. Humans can use the Imagination Ethic in a negative direction, creating what Zimbardo calls a 'hostile imagination.' Moreover, if the Engagement Ethic is never developed properly, a person can be left with an overactive Safety Ethic. The Imagination Ethic can continue to function, however, and *imagine* insensitive and antisocial solutions to the 'problems' the Safety Ethic proposes (vicious imagination). In order to optimize ethical expertise, an intentional environment is required that includes a set of caring relationships, a supportive climate, and a community that encourages prosocial self-development.

Caring Relationships. Second, perhaps most vital within an educational setting is the establishment of a well-structured and caring relationship between educator and student, in a way that forms a secure attachment—a factor that leads to a greater sense of belonging and promotes greater motivation and achievements (Klem and Connell, 2004; McNeely, Nonnemaker and Blum, 2002; Roeser, Midgley and Urdan, 1996). For students who have a history of poor parental bonding or come from abusive or neglectful environments, a secure bond may be more difficult to establish, requiring more patience and support, but a secure relationship is still possible (Watson and Eckert, 2003). The details of this relationship may vary by ethnicity and culture, so attention must be given to appropriate ways in which care and respect are shown. Nevertheless, the first foundation for nonkilling is a respectful, loving relationship with a mentor.

A well-structured environment requires a culture or climate of support. Teachers convey a general climate of support through expectations of growth and development, ethical excellence, and high achievement. Classroom studies show that these characteristics are particularly beneficial for persons from at-risk situations who must develop support systems as these systems

are weak or nonexistent (Benson, Leffert, Scales and Blyth, 1998; Wang, Haertel and Walberg, 1998; Zins, Weissberg, Wang and Walberg, 2004). With increased expertise, students become autonomous within a domain (Zimmerman, 1998). They learn enough skills to be able to monitor their own progress and to change strategies when needed. Teachers must be aware of this development and encourage students in autonomy, self-direction and influence (leadership). The major components of a well-structured environment include teacher warmth, acceptance, support, and modeling; training in social skills; opportunities for helping others; discipline through a sense of citizenship to school; student autonomy, self-direction, and influence; student interaction, collaboration, and participation in open discussion (Solomon et al., 2002). These characteristics foster a climate that engages student ownership and general concern for the wellbeing of the group.

Community Support. Third, students do not flourish alone but require the surrounding community to continually provide the support needed (Bronfenbrenner, 1979). The community is where skills are practiced and honed. Therefore, the educational system must foster strong links to positive elements of the local community. If the purpose of ethical behavior is to live a good life in the community, then together, community members work out basic questions such as: How should we get along in our community? How do we build up our community? How do we help one another flourish? That is, each individual lives within an active ecological context (Bronfenbrenner, 1979) in which, ideally, the entire community builds ethical skills together, for it is in these communities that students express their values, make decisions, and take action. Community members can encourage the desire for nonviolence and develop a sense of empowerment in students to enact internal and social change.

Self-Authorship. Finally, optimal learning environments promote self-regulation in students and community members. The perception of personal agency is formed from our self-regulatory skills and lies at the heart of the sense of self (Zimmerman, 2000). Virtuous individuals must be autonomous enough to monitor their behavior and choices. Where individuals can be coached in domain-specific self-efficacy and self-regulation (Zimmerman, Bonner and Kovach, 2002), once virtues are developed, they must be maintained through the selection of appropriate friends and environments (Aristotle, 1988). That is, individuals have to be active in developing and influencing the systems around them so that the situations they inhabit contribute to their continual prosocial, nonkilling development and do not work against them.

It is vital to start early in shaping the brain to move beyond a Safety Ethic, to shape prosocial emotional systems, to facilitate the ability to deliberate, and to

raise capacities for dealing with systems. Adults with children and leaders with group members can actively and consciously work to properly manage the Safety Ethic, both consciously, with self-regulation strategies, and automatically, with group norms and practices. Although the Engagement Ethic is best fostered through early care and caregiver bonding, which facilitate social brain circuitry development, sociality can be fostered by supportive teachers and environments as well (e.g., Watson and Eckert, 2003). Again, social-emotional systems can be rewired to a certain degree with caring relationships. A fully trained Imagination Ethic is key in coordinating instincts, intuitions, goals and actions as well as formulating appropriate judgments, critical skills in ethical development; deliberation skills also require guided practice. Finally, as systems can become dominating, a truly critical education must assist people in assessing systems and the situations systems create. This type of education would also provide skills in civic system development and effective and civil modes of system resistance and deconstruction. Individuals and groups need to learn how to develop moral institutions that facilitate justice among the populace (Trout, 2009). Education then is a major tool in ending killing and reaching those goals set forth by the Center for Global Nonkilling.

What do we teach? Skill development under apprenticeship

The two primary methods of moral education are traditional character education and rational moral education. Traditional character education (Arthur, 2008) understands virtue development as the primary aim of education. It focuses on the educational relationships, and habitual actions that contribute to the formation of character. Rational moral education (Kohlberg, 1983), in contrast, emphasizes the development of self-directed moral judgment and the proper application of fairness in resolving moral dilemmas as the goal of moral education. Rational moral education focuses on the development of reasoning and autonomy.

Whereas these approaches to moral development are often viewed as opposing one another, they are complementary. Integrative Ethical Education (Narvaez, 2006) integrates the two approaches through moral expertise development. IEE acknowledges the need for character formation, as well as the need to cultivate reflective reasoning and a commitment to justice. Ethical expertise development fosters both conscious rational deliberation, and the habits, skills, and intuitions of moral character, the ethical know-how that can be mentored and self-cultivated to high levels of expertise. But what exactly should be taught?

Table 1. Integrative Ethical Education: Ethical Skills

Ethical Sensitivity - *Notice the need for ethical action, Feel empathy, Put yourself in the other person's shoes, Imagine possibilities, Determine your role.*

- Understand Emotional Expression
- Take the Perspective of Others
- Connecting to Others
- Responding to Diversity
- Controlling Social Bias
- Interpreting Situations
- Communicate Effectively

Ethical Judgment - *Reason about what might be done, Apply your code of ethics, Judge which action is most ethical*

- Understanding Ethical Problems
- Using Codes and Identifying Judgment Criteria
- Reasoning Generally
- Reasoning Ethically
- Understand Consequences
- Reflect on the Process and Outcome
- Coping and Resiliency

Ethical Focus - *Make the ethical action a priority over other needs and goals, Align ethical action with your identity*

- Respecting Others
- Cultivate Conscience
- Act Responsibly
- Help Others
- Finding Meaning in Life
- Valuing Traditions and Institutions
- Developing Ethical Identity and Integrity

Ethical Action - *Implement the ethical action by knowing what steps to take and getting the help you need, Persevere despite hardship*

- Resolving Conflicts and Problems
- Assert Respectfully
- Taking Initiative as a Leader
- Planning to Implement Decisions
- Cultivate Courage
- Persevering
- Work Hard

The 28 skills [above] were sampled from those considered to be moral exemplars (e.g., Martin Luther King, Jr.), from classic virtues (e.g., prudence, courage) and modern virtues (e.g., assertiveness, resilience), as well as from a review of scholarship in morality, development, citizenship, and positive psychology. Skills include those that promote justice and the flourishing of self and others, individual and community. A minimal level of competence in these skills is required of adult citizens for a pluralistic democracy to flourish.

IEE suggests teaching ethical skills in the four areas of Rest's framework of moral behavior (Rest, 1983; Narvaez and Rest, 1995). The four components—ethical sensitivity, ethical judgment, ethical focus, ethical action—represent the psychological processes that must occur in order to complete an ethical behavior. Table I lists the types of skills that can be taught for each process (Narvaez and Bock, 2009; Narvaez and Endicott, 2009; Narvaez and Lies, 2009; Narvaez, 2009). All four processes—sensitivity, judgment, motivation, and action—are highly interdependent. In order for an ethical behavior to occur, all four are required. Otherwise, poor action or no action at all may result.

Ethical Sensitivity. Before an action can be taken, a person must notice the need for ethical action, being perceptive about situational cues. Such *ethical sensitivity* extends to a concern for those involved, including feeling empathy, putting oneself in the other person's shoes, imagining the effects of possible outcomes on others, and the reactions of those involved. Teachers help students with a variety of sensitivity skills such as increasing familiarity with diverse cultures, communicating in appropriate ways for the context, and controlling one's social biases. In application to nonkilling education, this would include teaching sensitivity to situational forces, dehumanizing language and actions (Smith, 2011). Critical from our earlier discussion, it is important for an individual (or group) to stay calm and self-regulated, as sensitivity can be quickly lost when the Safety Ethic is engaged without restraint.

Ethical Reasoning. A second process involved in eventual moral behavior is ethical judgment, an area most related to rational moral education. The skills for ethical judgment include reasoning about possible actions, applying a code of ethics, and judging which possible action is most appropriate. Moral judgments and reasoning structures increase with age and education and are less dependent on differences in culture (Kohlberg, 1984), but are also shaped by habitual thoughtfulness, and by focused training (Narvaez and Gleason, 2007). In application to nonkilling education, students can learn 'attributional charity,' or giving others the benefit of the doubt. (Zimbardo, 2007: 212). Students can also conduct ethical analyses of 'The System' and situational forces, exposing the underlying ethical requirements and assump-

tions of those systems and situations (see Zimbardo 2007: 245 for consequences of poor analysis). For a formal example of this type of analysis see Walter Schultz's, *The Moral Conditions of Economic Efficiency* (2001).

Ethical Focus. Third, moral behavior does not occur without ethical motivation or focus. For an ethical behavior to take place, a person must prioritize the ethical action identified in the previous step over other needs and goals. This prioritization can either be specific to a situation or more generally prioritized through habituation. This motivation includes focusing on the right thoughts and situational cues. It is important to remember a situation can overwhelm a person without his or her knowledge, destroying ethical motivation (Zimbardo, 2007: 179). For example, intense systems can form a negative present-situation focus only. For example, in Zimbardo's prison experiment, the prisoners' conversation was 90% about the prison issues they were facing. They did not talk about themselves or their lives outside of the prison. Their singular focus on the one system intensified the negativity of the experience and the internalization of the guards' negative attitudes towards them. Zimbardo calls this a 'transformation of character,' where individuals are induced, seduced and initiated into evil behaviors (Zimbardo, 2007: 210). This prevents the initiation of the first stages of the ethical process, ethical sensitivity, and prioritizes immediate relief for some sense of safety. As discussed above, this is precisely the type of context that engages the Safety Ethic and therefore has a strong potential for violence (rage) or unquestioning obedience (fear). Maintaining a sense of multiple systems can facilitate a healthy level of detachment from any particular system (Zimbardo, 2007). The self can maintain a detached resistance. Blasi (Blasi, 1984) and Damon (Damon, 1984) argue that self-concept directly influences ethical motivation in general. For instance, if a person understands the self as compassionate person, then he or she is more likely to prioritize compassionate action no matter the situation. This can be an internal mode of resistance, which is necessary in resisting the forces within 'total situations' (Zimbardo, 2007: xiii).

Ethical Action. The final set of skills required for moral behavior is implementation skills. The person must know how to carry out the desired ethical action and have the perseverance to complete the job. This skill set includes judging feasibility, attaining social support, developing backup plans when things go wrong. Learners must practice the implementation of moral goals multiple times under guided supervision in order to build the skills sets that will work automatically when the need arises. Again, teaching non-violent forms of internal and external resistance, including the use of tech-

nology as seen recently in the 2011 Egypt civil uprising, provide both implementation skills and 'ego strength.'

Integrative Ethical Education emphasizes the importance of embedding character education into regular academic instruction. Teachers can slightly shift academic lessons so that they also address an ethical skill. These skills must also be fostered for use in the larger local context—the neighborhood, town, or city, and are best encouraged by those who live there. The need for practice, guidance by wiser others, and commitment to the community welfare, form the village of support needed for success. The goal of the IEE model is to create effective and committed community members. Engaging the situation, and as discussed above, is key in identifying the right situational forces to engage. Intervention is an ethical and a political action (Zimbardo, 2007). However, not all community traditions and practices are good. Therefore, it is important to facilitate students' ability to have personal checks in place. These include experiences such as participation in multiple communities, skills such as listening to minority voices, empathetic but critical engagement, conscious ethical effort, and modes of nonviolent expression. It should also be pointed out that teachers themselves need to have skills for self-regulation, ethical engagement, and social justice action. The mentors need their mentors too. Again, the IEE model requires the constant practice of skills and this involves the greater public involvement in helping one another achieve and maintain a nonkilling culture.

Conclusion

It is clear there are multiple forces converging on individuals and communities leading to acts of violence and death. There are many reasons that an individual might kill, from poor early nurturing and imagination building to blinding situations that strip away those aspects which allow humans the unique position of ethical compassion, deliberation and behavior. Conditioned and cultivated selves balance internal forces of human evolutionary and cultural development as detailed in Triune Ethics Theory. When a Safety Ethic is activated, it is difficult for anyone to feel or be safe, because its actions can be unpredictable. Fostering ways to keep safety concerns minimal are critical for nonkilling environments.

Individuals and communities are also engaged in systems that create situational forces of their own. These forces can overwhelm the Imagination and Engagement Ethics, leaving the Safety Ethic in charge with its potential for violent self-preservation. Individuals must practice skills that allow them to step away from the power of systems as well as skills in nonkilling

resistance when necessary. Extensive, focused practice of critical ethical skills, as detailed in the Integrative Ethical Education model, provides defenses against negative evolutionary, situational and systemic forces. Ethical expertise development, in this way, can help prevent killing. For optimal influence, the instructor should have a caring relationship with the student in a way that is comfortable to the student, but holds high expectations for character and academic success. Moreover, the group relational context, or situational climate, should be positive and supportive to keep the Safety Ethic properly guided and to enhance prosocial emotions. Fostering self authorship under the guidance of community members creates optimal situations for developing effective ethical skills. In this way, moral institutions are cultivated communally, providing *good* systems for proper human development which avoid killing and promote nonkilling and prosociality.

Finally, we emphasize the importance of system regulation. Some factors are vital for creating good situations for system participants such as transparency, policy oversight, and outgroup interaction. Such regulation should extend from small local systems to the many global systems governing the lives of all people on earth. Education in the existence and nature of these systems, system management, and system analysis will foster a culture of system sensitivity and desire for healthy environments, ones absent of killing.

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The Deconstruction of Enemy Images for a Nonkilling Society

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Introduction

Killing in self-defense is commonly perceived as an inalienable human right. Accordingly, citizen gun possession is claimed for self-defense or a well-equipped militia is considered as necessary to guarantee the security and the defense of a free state. Further, killing in self-defense is still strongly supported by many in governments and mass media. However, vivid episodes of history irrefutably demonstrate that violent acts of self-defense lead to highly negative consequences. As Glenn D. Paige (2002: 127) pointed out, “killing that has been expected to liberate, protect ... has become instead a source of insecurity, impoverishment, and threat to human and planetary survival.” According to Comstock (1971), humanity is suffering from what he has termed the “pathology of defense” when that which is intended to defend becomes itself the source of self-destruction. Defensive guns at home often kill family members; every preemptive war conducted for the defense of one’s own nation has resulted in the deaths of hundreds of human beings and psychological and physical traumas across generations. Nevertheless, Paige (2002) holds that killing in self-defense is not an unavoidable component of human societies. The chronic need for self-defense indeed stems from the perception that “others”—an individual, a group, or a whole nation—are seriously threatening our life or values. Such perception is, however, most of the time just a shadow, a psychological construction driven by specific cultural and contextual factors. The systematic deconstruction of this process may have a tremendous impact on the human tendency to kill in self-defense.

Enemy Images in a Lethal Society

Since the beginning of recorded history, human societies have tended to create what has been termed the image of the enemy. It seems that societies and their leaders need enemies. Among the communities' members, leaders use the idea of a common enemy as a method of social control, of reinforcing values of the dominant system, of diverting the attention from economic or cultural problems (Keen, 1986; Spillman and Spillman, 1997). In fact, the enemy image has marked dramatic episodes of human history. Through its creation and perpetuation, oppression, mass killings, genocide and violations of human rights have been perpetrated. For example, the image of the "Jewish enemy" was largely used by Nazi propaganda and contributed to the extermination of six million Jews who resided in Europe. In the same vein, during the Rwandan genocide the enemy image of Tutsi, created and maintained mainly by the radio propaganda, justified Hutus in brutally murdering individuals who were former friends or colleagues. If these dramatic events can be perceived as remote in time or space, after 9/11 the processes involved in the construction and dehumanization of enemy have instead become an everyday affair, shared by most citizens of the Western world. Words and images representing the enemy have suddenly been brought into our home by the power of mass media. The construction of the "Islamic enemy" has been used to develop consensus around the *war on terror*, tolerate violations of human rights, or to neglect the "collateral damage" of the war among civilians.

But, who truly is the enemy? Why do individuals endorse enemy images? When does perceiving another as an enemy lead to extreme consequences, such as killings? In particular, is it possible to dismantle the enemy image? Is a society without enemies imaginable? In the present chapter, we aspire to address all these questions by analyzing psychological processes involved in the construction of the enemy image, assuming that the representation of others as enemies would be intrinsically related with the self and the group identity formation.

The chapter will begin with an examination of the enemy images considering current societal conditions. Afterwards, the social psychological processes underlying such images will be considered, together with the cognitive biases reinforcing them. However, the primary aim of this chapter is to show that the enemy images are not an inevitable part of human nature, but are a mere psychological construction, and their dismantling is possible by building conditions that foster empathy, cooperation, trust and respect for life.

The deconstruction of enemy images would be a fundamental stone towards a global nonkilling society. Coherently with this assumption, it is

noteworthy that the importance of overcoming enmity has also been a crucial issue for the major philosophers of nonviolence. In his application of Satyagraha, Mahatma Gandhi (1961) always insisted that we must not have enemies, but only opponents whom we “wean from error by patience and sympathy”. Inspired by Gandhi’s teachings, Martin Luther King (1958) emphasized that “the “nonviolent resister” constantly seeks to persuade his opponent that he is wrong ... he does not seek to defeat or humiliate the opponent, but to win his friendship and understanding”.

Enemy Images in the Globalized World

Psychological and political studies on enemy images have been conducted during the last 50 years or so. However, most research on this topic has been done during the Cold War and especially in the context of American-Soviet relations. With the disappearance of the Soviet threat, it was perceived that enemy images have lost their bases. But enemy images are still extremely salient, although their forms and targets have shifted over time.

With the advances in communication and transport the spatial boundaries between people are dropped; nowadays people can physically or virtually move everywhere and interact with myriads of diversified individuals. On the one hand, such development has fostered the possibility for cooperation and interdependence between members of communities hitherto isolated; for example, in the last decade international humanitarian organizations have flourished (Fabick, 2004). On the other hand, the dropping of spatial boundaries often has not corresponded with the dropping of social and cultural barriers. Prejudice, stigma, racism, still persist. The xenophobia or the indifference towards those who are beyond our cultural boundaries has become even greater (Zamperini, 2007). Furthermore, the acceleration of global transportation, communications, and immigration has somehow changed the enemy images. In the past, the enemy and its representation was something easily identifiable and spatially far-way from our community, such as the case of Soviets for US citizens. Today, the boundaries of the enemy image are no longer clearly defined; the new invisible enemies no longer wear a uniform or approach their victims openly, they often mingle freely with their intended civilian victims before they strike, inspiring widespread fear and terror to the entire community (Zur, 1991).

“Islamic terrorism” is a clear example of the enemy image in a globalized world. On one side, Al-Qaeda used the Internet and globalization to transmit its messages and move its money, people, propaganda and terror. September 11, Madrid and London transit bombings are the direct evidence of

the pervasiveness of the new invisible enemy. On the other side, the globalization of media consumption has played a crucial role in creating a monolithic image of the “Arab” enemy among all the Western world; this image constructed all Muslims as Arabs and all Arabs as terrorists (Merskin, 2004); using representation and language in news, movies, cartoons, e-communication, the globalized culture has participated in the construction of the “Arab enemy” that encompasses a wide variety of people and countries (e.g., Shaheen, 2001). The construction of this image importantly aroused feelings of threat towards the new enemy, leading to an increase of intolerance and violence in general towards the entire Islamic world.

Despite these global changes, the psychosocial foundation of enemy images in processes of perception, identity formation, and group processes plays a continuous role. Thus, a scientific analysis of these processes is fundamental in making society aware of the importance of enemy images in distorting our thoughts and perception and perpetrating violent actions towards other human beings.

On a Psychological Analysis of Enemy Images

From a psychological point of view, “an image refers to a set of beliefs or to the hypotheses and theories that an individual or group is convinced are valid.” (Stein, 2002: 294) in so far as an enemy image is defined as a “culturally influenced, very negative and stereotyped evaluation of the ‘other’” (Fiebig-von Hase, 1997: 2). This image is reinigorated and reinforced via written words (e.g., newspapers, magazines), media images (e.g., TV, movies), or political leaders’ speeches that further worsen the stereotypical negative traits. In Mein Kampf, Hitler for example degraded the enemy Jew to different animals that stereotypically recalled it/animal stereotypes: polyyps (spread everywhere), hyenas (dangerous and mean), or lice (irritating but eliminable; see Capozza and Volpato, 2004). During the Cold War, the radicalization of the enemy Soviet’s negative traits is evident in several movies, such as *Rambo*, *Rocky IV*, or *Invasion of U.S.A*. In *Rambo*, for instance, two soviet soldiers are depicted torturing Sylvester Stallone with electric shocks and burning hot knives. More recently, after 9/11, US President George W. Bush during different public speeches portrayed Arabs using evil, barbaric and animalistic terms (Merskin, 2004).

Cultural and societal factors thus play a prominent role in the formation of enemy images. However, it is imperative that an appropriate analysis of this phenomenon takes into account its psychological foundations. Overall, the research can be divided into three main levels of analysis: 1. Motivational studies (including developmental theories and individual differences literature); 2. Cognitive studies (in particular, the biases in processing in-

formation when a nation or group is labeled as an enemy), and, 3. Social mediation studies (focus on the images that individuals receive from other people during social interaction and through the mass media) (Silverstein, 1989). Many of the motivational studies come from the psychodynamic perspective, whereas the cognitive and social mediation studies are mainly based on theoretical constructs from social psychology.

Before discussing the major contributions made by these three levels of research, it is appropriate to ask, as Paige (2002) has done in relation to political science: Is there a psychological need to have enemies? In the next section, we will try to answer this question.

Enmification: A Natural Psychological Process?

The psychoanalytical perspective has laid the foundations for the comprehension of individuals' tendencies to enmity. According to Freudian psychoanalytical theory, starting from infancy individuals may be unable to deal with their anxieties and aggressiveness triggered by loss or traumatic experiences. Thus, they unconsciously develop particular defense mechanisms to cope with reality, such as projection or displacement (e.g., Durbin and Bowlby, 1939): unacceptable violent impulses are displaced onto a socially accepted target of hostility, such as an enemy group.

Among the major psychoanalytic theorists on the process of enmification (making enemies), Vamik Volkan (1985) argues that enemies are necessary for psychological growth because they help to strengthen the self and to differentiate it from the environment. His starting point is the object relations theory, which hypothesizes that children learn about the world through their relationship to specific objects, especially their parents. When children are not able to integrate certain objects into their psyche, they project these objects onto an external entity. For Volkan (1985), if an experience is a threat to their own safety, the person will search for an external source to blame for the emotional uneasiness induced by the threat, regardless of its actual source; and this process, named "projective identification", is also active in the formation of enemy images in adulthood. Thus, adults may react to difficult situations with childhood defenses. Therefore, Volkan believes regression plays an important role in the formation of enemy images by reintroducing projective identification as a coping strategy. Although it is a theory designed to explain psychological development of individuals, Volkan (1988) also understood collective phenomena, assuming that individual development is reflected in the development of the collective. For example, nationalism can be seen as a protective mechanism used

by individuals to cope with feelings of threat, either internal or external. Threats to the nation may then be perceived as threats to oneself, thus causing regressive psychological functioning and the use of projective identification. Mass regression and projection can lead to the enmification of an opposing nation, generating the perfect premise for war.

According to Oppenheimer (2006), enmification is a four-stage process: threat, distortion, rigidification and collusion. Since it is believed that people have a fundamental human need for identity, so an event that is perceived to invalidate a person's core sense of identity creates a sense of threat. Distortion, the second stage of enmification, is considered a psychological response to perceived threat. Distortion is an individual's way of reducing the level of a threat to one's identity by denying or altering the meaning of an event; thus, distortion allows enemies to rationalize deep seeded hostility. In some extreme cases, distortion can lead to dehumanization and evil deeds. The third phase, rigidification, is when people become so rigid in their positions that they develop a hostile imagination of the "other" and treat prejudices and stereotypes as truth, despite the information from the social world. Metaphorically speaking, rigidification builds a protective wall to defend against attacks to the subjective or collective sense of identity. In the final phase, collusion, the parties cooperate in supporting the conflict. The reactions that constitute the process of rigidification are incorporated into the self, thus entering a part of history and identities of the involved parties. At this stage, the conflict satisfies the identity needs of the belligerent parties; so that hating the other becomes mutually rewarding. Ultimately, colluding in maintaining the conflict becomes a unifying group aim, around which patriotism coagulates.

One's need to identify another person or group as an enemy is, according to Volkan (1985), Oppenheimer (2006), and some other theorists (see Spillmann and Spillmann, 1991), a natural by-product of psychological development. As Finlay, Holsti, and Fagen note (1967: 7): "It seems that we have always needed enemies and scapegoats; if they have not been readily available, we have created them. (...) the role of the enemy is more fixed than those filling the role."

These enmification frameworks are useful in facilitating the discussion on how groups or nations have sustained their mutual animosity and understanding of how deep-rooted, protracted conflict becomes so embedded in the identities of individuals. But these contributions do not provide support for the common sense that enmification is a natural psychological process, and therefore inevitable. For example, Volkan does not cite empirical evidence to support his position. Moreover, the limited empirical research directly sup-

porting these theories is scientifically flawed, the methods contain weaknesses, including unreliable instruments and designs (see Silverstein, 1989).

Therefore, it is important not to confuse the need for identity, that is so essential for any individual and we will return at length, with the need for enemies. The existence of enemy is not determined by the nature of things. The enemy is not inevitable. The enemy was brought into existence or shaped by social events, psychological processes, forces, history, all of which could well have been different. Therefore, if we want things to go differently, to move from a killing society to a nonkilling society, it becomes essential to analyze scientifically the combination of these components to enable a group or nation to think of an opposing group or nation as an enemy. Here, in particular, we will review the main empirical contributions of psychology that explain how the image of the enemy is constructed and operates and especially how it can be deconstructed.

Cognitive Biases

Research in cognitive psychology has revealed that people's beliefs deeply affect information processing (e.g., Petty and Wegener, 1998). More specifically, cognitive research holds that individuals, often unconsciously, seek to maintain the coherence in their system of beliefs by diverting their attention, or distorting their perceptions and attributions in a way that discount discrepant information (see Silverstein and Flamenbaum, 1989). In this way, when an enemy image is distributed within the community, individual cognitive processes operate so that the negative and hostile view of the enemy is perpetuated and reinforced.

Selective perception and memory: Selective perception refers to the process of categorizing information in a way that is congruent with the existing system of beliefs. A similar process is selective memory by which information that is congruent with existing beliefs is stored in memory while other information is not.

Selective perception and memory are important for maintaining the image of the enemy, since they lead to confirming or overemphasizing negative enemies' traits or behavior. In line with this assumption, Flamenbaum and Silverstein (1987) during the Cold War found that compared to US students who read a description of actions ostensibly taken by Australians, those who read an identical selection about the Soviets were almost four times as likely to recall those actions that involved aggressive behavior. In another study, Schooler (1995) reported that individuals tend to overestimate the importance of information confirming the negative enemy stereotype, rather than positive information disconfirming it.

Causal attribution. Different studies have also suggested that the attributional biases (e.g., Block and Funder, 1986) are central to the perpetuation of enemy images. Causal attributions help people to make sense of the world, to guide their own behaviour, and to predict events. However, there is considerable evidence that attributions regarding group behavior are biased in favour of one's own group and at the expense of the outgroup (e.g., Hewstone, 1990). In particular, Psychologists for Social Responsibility (PsySR, 1988) defined three different biases through which the process of causal attribution for enemy actions is altered: (a) when enemies perform actions that might be considered hostile, people tend to debase or neglect the situational conditions that may have negatively influenced their actions; such actions are thus exclusively interpreted as a further token of the wickedness of others; (b) inversely, potential positive actions of enemies are explained overemphasizing the situational processes; thus, people view peaceful enemies' actions as not sincere, but merely conducted for facing situational pressures; (c) when the enemy image is particularly rooted, peaceful enemy actions may even be attributed to harmful motives. All acts of the enemy are therefore attributed to destructive intentions towards one's own group. Whatever the enemy undertakes is meant to harm us. This last bias is evident in 1956, when the Soviets' offer to cut their troops was not perceived by the US as a step towards peace. Instead, because the discharged soldiers would have been employed in the war industry, the US government interpreted such an offer as a Soviet strategy to increase war making power.. Islam and Hewstone (1993) provided empirical evidence of the attribution bias. In their study, Bangladesh's Hindus and Muslims were presented with a series of positive and negative behavior performed by ingroup and outgroup members. They were asked to explain the causes of this behavior. Results showed that both Hindus and Muslims disproportionately attributed outgroup positive behavior to external causes, whereas outgroup negative behavior was disproportionately attributed to internal causes.

Individual Explanations of Enemy Images

The Freudian concepts of displacement and projection are central in the definition of authoritarian personality by Adorno, Frenkel-Brunswick, Levinson and Sanford (1950). The authors hold that prejudiced attitudes and aggressive behavior towards others arise from childhood experiences. A strict education adopted by an authoritarian father may indeed prevent children from satisfying their unconscious and anti-conventional desires and drives. Such dissatisfaction produces inner conflicts that can be unleashed by projecting the forbidden drive and aggression onto other people. Thus, usually ethnic, political,

or religious enemy groups are selected as a screen for these psychological projections, because there are fewer social sanctions to fear.

Interestingly, some empirical works have tried to integrate the cognitive biases inherent in enemy images and the individual dispositions. For example, Burnstein, Abbushi and Kitayama (1993) presented US citizens with some abstract (e.g., "The Soviet Union really is an evil empire") or concrete (e.g., "It's a good idea to prohibit the sale of our advanced computer systems to the Soviet Union") statements regarding the Soviet Union. Results showed that among high-authoritarian people the abstract statements, rather than concrete, shaped the Soviet enemy image. According to the authors, this is explainable by the fact that authoritarian people prefer coherent, schematic and unidirectional information that is unlikely to come into conflict with other information previously stored in memory. As a consequence, to eradicate enemy images in authoritarians' minds becomes extremely difficult.

Group Dynamics and Enemy Images

Despite their relevance, the individual theories cannot explain why an entire community blindly endorses enemy image beliefs, or how these beliefs may lead to collective feelings of threat and fear.

One important component of individual identity is social identity, which refers to "that part of an individual's self-concept which derives from his knowledge of his membership in a social group (or groups) together with the value and emotional significance attached to that membership" (Tajfel, 1981: 255). The social identity theory (Tajfel, 1981; Tajfel and Turner, 1986) suggests that people satisfy their need for social identity by identifying with a group and differentiating it from outgroups. People also spontaneously enhance social identity by bolstering favorable comparisons of the in-group with outgroup. Membership in a group thus leads to automatic comparison and differentiation between groups, and under certain conditions (e.g., threat), can lead to derogation of other groups. These findings suggest that collective enemy images are grounded in the need for identity and the dynamics of group behavior (Stein, 2002).

All in all, social identity theory indicates that under certain conditions, group members are motivated to share and maintain enemy images as a part of group identity, even in the absence of true hostile intentions (Stein, 2002). However, the social identity theory does not allow us to fully understand why shared enmity images may lead to extreme acts of violence toward enemy group members. The path from hostile beliefs to collective violence often involves a progressive process, which intensifies the desensibilization towards

others or the perception of others as not humans (Zamperini, 2001). According to Bar-Tal (1989), the collective violence towards the hostile group is made possible and justified through specific psychological delegitimization processes. Such processes provide justification for individuals and for the social system as a whole to intentionally harm the rival, and to continue to institutionalize aggression towards the enemy (Jackman, 2001). Delegitimization of others is a fundamental strategy that resolves feelings of dissonance and guilt that may arise, since naturally the vitality dominates the lethality and violence in human beings. Bar-Tal (1989) indicates that dehumanization, outcasting, negative trait characterization, political labeling and group comparison are the most commonly used contents in delegitimization. Among these, dehumanization is probably the most extreme and effective strategy of delegitimization. Once dehumanized, enemies are indeed stripped of human feelings, and portrayed as subhuman beings (savages, primitives or animals) or as demoniac superhuman creatures (evil, monsters). Thus, to brutalize them became easier. Somewhat similar is the outcasting, which refers to the view of adversaries, into categories that are considered as violators of fundamental social norms. Outcasts include such categories as murderers, thieves, terrorists, or maniacs.

As a rule, the authorities and government leaders actively support the delegitimization process of enemy groups. In a recent work, Volpato, Durante, Gabbiadini, Andrighetto, and Mari (2010) empirically analyzed visual images used by Italian fascist propaganda. They found that despised social groups (Jews and colonized populations) were largely portrayed with images recalling Bar-Tal's delegitimization strategies. Regrettably, the same contents of delegitimization were also found in the anti-immigrant propaganda used by the Lega Nord (a current governing political party in Italy).

Moving Beyond the Enemy Image

Empathy and Trust

The perception of others as "enemy" leads to a disruption of empathetic feelings. The enemy is no longer viewed as a person with feelings, hopes, and concerns, but he/she is deindividuated, "locked behind a mask" (Fabick, 2004: 54) which obscures his human qualities and motives. As mentioned above, such a component of the enemy image is one of the key processes through which people justify violence and feel justified in perpetuating aggressive behavior towards the enemy. Thus, the development of empathy must be considered a core element for removing the mask of enmity. It is noteworthy that empathy does not necessarily imply the assimilation or the

overlap with others' feelings. Rather, empathizing with others requires efforts towards a deeper understanding of others' values, emotions, and perspectives. Different studies revealed that empathy is crucial in reducing negative attitudes and behavior towards members of rival groups. In particular, a greater appreciation of others' emotions or experiences has shown to be implicated in eliciting forgiveness for past misdeeds between members of conflicting groups, such as Protestants and Catholics in Northern-Ireland (e.g., Hewstone, Cairns, Voci, Hamberger and Niens, 2006), Bosnians and Serbs in Bosnia and Herzegovina (Cehajic, Brown and Castano, 2008) or pro-Pinochet and anti-Pinochet groups in Chile (Noor et al., 2008).

Besides empathy, we believe that trust building is a further key process involved in reducing the enmity. Each antagonist's attitude or behavior is indeed viewed with suspicion, and interpreted as negative or harmful for the self and the ingroup. Psychological and physical barriers between individuals and the members of the enemy group are therefore exacerbated. Trust building is a process that can replace suspicion with benevolence and cooperation (Lewicki and Wiethoff, 2000), improving intergroup relations and directing people to cooperate with others. More specifically, trust implies the expectation that others will not exploit one's vulnerability and the belief that others will attempt to cooperate (Kramer and Carnevale, 2001). In an interesting series of studies, Tam, Hewstone, Kenworthy and Cairns (2009) documented that trust is an important concept for conflict resolution and peace building. They indeed empirically demonstrated that trust is a powerful predictor for positive behavioral tendencies towards the enemy group, both among Protestants and Catholics in Northern-Ireland.

Unfortunately, both empathy and trust are difficult to develop, and a number of positive encounters are often required to promote empathetic and trusting relationships. However, the social psychological research and theory provides the peacemakers and educators with a variety of practical and theoretical strategies in attempts to increase empathy and trust towards others and thus modify the enemy image.

Education and Training

Role taking is perhaps the most common technique for arousing trust and empathy between antagonistic individuals or groups. During this technique, participants are encouraged to assume the others' perspectives and to think and to behave as the others would. Several studies (e.g., Feshbach, 1982) documented that by practicing role-taking individuals strengthen their capacity to understand opponents. They anticipate the other's response and use

this awareness to guide and adjust actions, exercising flexible self-control of their own behavior. More importantly, role-taking strengthens the humanity of the opponents through empathy, restraining the tendency to demonize others, and can lay the foundation for negotiation and eventual reconciliation.

The training proposed by Brislin e Yoshida (1994) also underlies the others' perspective taking. Such training is structured in four different steps: realization of difference between *us* and *them*; acquaintance with others; management of emotional stress due to interaction with people endorsing values, norms and perspectives different from one's own; acquisition of new knowledge and skills integrated with those of others.

The reduction of enmification can be obtained also by making people aware of the enemy image they hold. For instance, White (1986, 1998) proposed the use of extreme images to persuade people that they hold a distorted enemy image of other groups or nations. These images could be replacing with knowledge of the perspectives of outgroup members as well as their motivations, and collective history. In addition, empathy techniques, including role playing, was suggested. In the same vein, Zur (1988) ran workshops on the process of enmification based on analyses of contemporary media and war propaganda. In addition, the workshops focused on concepts such as demonization, dehumanization, and the process whereby yesterday's enemies become today's friends and viceversa.

Furthermore, psychological efforts to reduce the enemy image utilize group simulations. To change the US enemy images of the Soviet Union, Greening (1998) for instance developed a paradigm in which teams made up of Americans engaged in simulation games of problem-solving with teams made up of Soviet émigrés.

Enhancing contact between individuals

Moving towards an intergroup perspective, one of the most effective ways for reducing the enemy image is enhancing connections between individuals. Direct interaction is indeed decisive to break down the ignorance and the suspicions about other groups, since it discourages the endorsement of dehumanizing stereotypes and decreases negative emotions, such as anger, fear or hate (see, e.g., Tam et al., 2007). At the same time, direct interaction increases the value of others, helps to discover that they have appreciable feelings or values, and that their intentions or actions do not necessarily threaten our identity or our physical security. For example, McLaren (2003) documented that among West European citizens an inti-

mate contact with immigrants inhibits cultural and economic threat feelings, improving the behavioral intentions toward ethnic minorities.

Nevertheless, contact per se is not enough to overcome the enemy image. On the contrary, certain kinds of contact in a highly charged context might even strengthen this image. Allport (1954; see also Pettigrew and Tropp, 2006) stressed that intergroup contact is most likely to yield positive consequences when certain conditions are met. First, individuals have to perceive equal status between groups within the contact situation. Viewing others as inferior may indeed produce negative consequences (see, e.g., Jackman and Crane, 1986). Second, individuals must pursue mutual and common goals (Deschamps and Brown, 1983) that require active cooperation (e.g., Hewstone and Brown, 1986). Third, the interaction must afford acquaintance potential, or the possibility to get to know each other on a personal basis (e.g., Brewer and Miller, 1984). In addition, Cook (1985) also emphasized that the interaction must encourage behavior that disconfirms negative stereotypes that the groups hold of each other. Finally, the institutions must support the contact through legal and policy decisions.

Since its formulation, several peacemakers have used the theoretical premises of Contact Theory to develop practical interventions aimed at reducing conflict and intolerance. In particular, Psychologists for Social Responsibility (see Fabick, 2007) designed the US and THEM workshops to optimize the possibility of enemy image reduction through intergroup contact. In this training, members of conflicting groups interact so that they get to know "others" as individuals, through the exploration of common interests, experiences, and values; and through socialization opportunities, structured dialogue and exercises designed to increase participants' empathic understanding of "others." These workshops have been adopted by important organizations and were used in President Clinton's *Initiative on Race*.

Moreover, Contact Theory represents an important guideline for planning interventions in an educational setting. In the 1970s, drawing on Allport's theory, Aronson and colleagues (Aronson, Bridgeman and Geffner, 1978) developed the jigsaw classroom, a cooperative learning technique aimed at reducing racism and violence among school children. In this technique, the students are typically divided into mixed racial groups (e.g., Whites and Afro-Americans children). Each member of a group receives a portion of the material to be learned, which he or she must then teach to group members. Within each group, therefore, each student is the expert on some aspect of the material, and all students are dependent on one another. The jigsaw process encourages listening, engagement, and empathy

by giving each member of the group an essential part to play in the academic activity. Group members must work together as a team to accomplish a common goal; each person depends on all the others. No student can succeed completely unless everyone works well together as a team. Importantly, the jigsaw technique has proven to be effective in improving empathy and reducing aggressive behavior towards the other students and the generalized outgroups as well. Pursuing interdependence and respect through contact in educational settings is a fundamental step to inhibit the tendency of enmification. This indeed allows young people to enrich the psychosocial identity formation process, including the awareness that we primarily are all human beings, sharing similar needs and emotions, and that the others' abilities and competence do not represent a threat for our identity, but rather an important source for achieving common goals (for a review on long-term effects of the jigsaw method, see Aronson, 2004).

Redefining the Boundaries Between “Us” and “Them”

As seen in the previous section of the chapter, the sense of belonging with one's own community has critical implications for the formation and maintaining of the enemy image. A large body of research indeed shows that people who strongly identify with their group tend to engage in more likely aggressive behavior towards members of other groups, feel less empathy towards them, and are less critical to the ingroup's wrongdoings (see e.g., Noor, Brown and Prentice, 2008). However, the link between group identification and enemy image does not necessarily work only in one way. The groups' boundaries can be changed, as well as the individual sense of belonging. According to Common Ingroup Identity Model (CIIM; see, Gaertner and Dovidio, 2000; Dovidio, Gaertner and Saguy, 2009), intergroup conflict and enmity can be reduced by altering the ways in which group members interpret group boundaries. Through a process of recategorization, members of separate groups may see themselves as belonging to a common superordinate category, inclusive of former ingroup and outgroup members. With this revised common ingroup identity, the cognitive and motivational processes leading to perceive others as enemy are redirected to include former outgroup members in a same common group. It is noteworthy that belonging to a common group does not necessarily require group members to forsake their ethnic identities. Through the development of a common ingroup identity model indeed the unity in diversity is appreciated, and group members conceive of themselves as holding a “dual identity” in which values and feelings of both subgroups and superordinate group are salient simultaneously.

Different studies, conducted both with laboratory and real groups, showed that increased representation of groups in terms of a superordinate category fosters tolerance and increases positive forms of behavior, such as self-disclosure and helping across original group lines (Dovidio et al., 1997).

More importantly for the purpose of this chapter, the common ingroup identity has been revealed as effective also in contexts characterized by past or present violence, where therefore the enemy image is extremely salient. For instance, Wohl and Branscombe (2005) found that Jews felt more forgiving towards Germans when they were encouraged to think of the two groups in terms of the superordinate entity of humans, rather than when induced to think of belonging to only their own group. Further, Gaunt (2009) documented that the identification with the common group of "Israelis" weakened the Israeli Arab tendency to dehumanize Israeli Jews. In the same vein, Andrighetto, Mari, Volpato, and Behluli (in press) reported that an increased identification with the common group of "Kosovars" enhanced Kosovar Albanians' empathetic and trusting feelings towards the enemy Serb. However, the path towards the development of a common group is slow and requires specific contextual features. In particular, different studies (see, e. g., Sherif, Harvey, White, Hood and Sherif, 1961; Gaertner, Mann, Dovidio, Murrell and Pomare, 1990) supported the idea that the cooperative interdependence facilitates the transformation of group members' perceptions of the memberships from "Us" and "Them" to a more inclusive "We". Thinking about the current society, there are a number of world problems that should require cooperative and transnational efforts: fighting global warming, reducing starvation, stopping the spread of AIDS, or preventing nuclear proliferation. Concrete and systematic efforts aimed at affording these challenges may increase the awareness of belonging to the same community of human beings, and consequently inhibit the tendency to create the enemy image.

Conclusion

We know quite well that human relations can be rosy and lead to peaceful and satisfying interaction, or turn into perverse spirals of conflict and oppression. Collective violence is prepared and supported by strategies aiming at reshaping the vocabulary of social relations. So, the thought "us vs. them" colonizes minds. Of course, the creation of a borderline between "us" and the "other" is a sociopsychological process that occurs in all human relations; in the neighbourhood, community and society, people will include some but exclude others on the basis of different criteria. But these criteria are cultural

constructions, and combining social and cognitive perspectives it was particularly important to understand the process of “enmification” (enemy making), when the “other” becomes an enemy. An enemy deprived of his subjectivity, of his specificity of life and culture, and of all individual traits. The pluralism of interpersonal relations is substituted by the homogeneity of conflictual intergroup relations. The contingency of case, typical of any open and fluid individual relationship, is substituted by the certainty of regularity, defined by a unique and total vision of one reality, which is made sterile by its strong internal cohesion. This type of process assumes a central role in the dynamics of contemporary ethnopolitical conflicts, where the creation of “ethnic enemies” parallels the reshaping of collective, mutually exclusive identities.

Among the main elements that allow you to make the transformation to nonkilling, Paige (2002) also includes *science*. We believe that the psychology of enemy can be of help to achieve this goal, because now we can explain not only how enemy images maintain themselves and become more negative but also how they decrease in negativity. Scientific knowledge provides resources for a second key element considered by Paige (2002), i.e. *skills*, seen as ways to express transforming action (see also Sapio and Zamperini, 2007). Obviously, more research still needs to be done before psychologists can approach a full understanding of this phenomenon. In particular, greater contact must be made between the works summarized in the previous sections, and the whole must be better integrated with research on social injustice and discrimination.

In any case, even now, despite the great suffering still endured by humanity, we believe that the challenge by Paige (2002) for a nonlethal society has already begun in the sense that empirical research in psychology invites us to consider the enemy a problem to solve, and not a burden to bear for ever. This means, on a scientific basis, to challenge and change the widespread belief that the enemy is a fundamental need of human beings.

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The Psychology of Nonviolence and Nonkilling

Theory, Measurement, and Correlates

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While nonviolence as a method of conflict resolution in human societies has been documented to be over two millennia old (Sharp, 1973), relatively little attention has been paid to nonviolence over the course of recorded human history. Since the beginning of the 20th century and the activism of Mohandas K. Gandhi in South Africa and India, this has changed somewhat (e.g. Erikson, 1969; Harak et al., 2000; Hastings, 2005; Kool, 2008; Mayton, 2009). However, sound psychological research on nonviolence did not happen in earnest until the last quarter of the century and even then the amount of research on nonviolence has been negligible when compared to other issues like aggression and violence.

Near the end of the 20th century, Paige (2002) coined the term nonkilling, that incorporated and expanded on the concept of nonviolence in a positive and dynamic way. In the short time since, many academicians and professionals have begun to analyze nonkilling from the perspective of their own disciplines (Evans Pim, 2009). Kool and Agrawal (2009) and MacNair (2009) have analyzed nonkilling from a psychological point of view; however, empirical research from a psychological perspective has not yet emerged.

This chapter suggests directions for peace researchers to take in gathering empirical data to better understand the psychological aspects of nonkilling. I believe the path that peace psychologists have been using to develop an understand of nonviolence serves as a good one to take for this purpose. After a review of terminology, this chapter briefly summarizes the history of the study of nonviolence from a psychological perspective. Following a discussion of several theories of nonviolence that either are primarily psychological or have strong psychological components, a summary of psychological correlates of nonviolence will be outlined. While areas for future research on nonviolence and nonkilling are discussed throughout this chapter, the last section addresses additional critical research questions that need to be addressed regarding the concept of nonkilling.

Pacifism, Nonviolence, and Nonkilling

Pacifism is a term that has only been used for a little over a century as it was coined at the beginning of the 20th century to refer to anti-war-ism (Mayton, 2009). Yoder (1992) has delineated two dozen or so types of pacifism, however, pacifism of absolute principle and pacifism of the honest study of cases appear to be two of the most common forms. Pacifism of absolute principle holds the belief that all form of intentional killing is morally wrong, whereas the honest study of cases form is a just-war type of pacifism. In this latter form each case is analyzed to determine if war and killing might be acceptable in this particular instance. Within this form, some wars may be determined to be justified and others not.

Nonviolence is a term with many connotations. It may refer to a religious virtue or belief, a philosophy of life, or a behavior to resolve a conflict (Mayton, 2009). Peace psychologists tend to focus on the latter aspect when researching nonviolence. Despite what might be thought by the casual observer, adding the prefix non- to the root word violence does not imply any level of passivity on the part of someone who is nonviolent. As a behavior, nonviolence is more than the absence of violence. In this vein Mayton defines nonviolence as “an action that uses power and influence to reach one’s goal without direct injury or violence to the person or persons working to thwart one’s goal achievement (8).” Nonviolence, therefore, is not the absence of violence but is a direct action that does not include direct violence or specific actions intended to do immediate injury or harm. Mohandas K. Gandhi has described several concepts that further elucidate the underlying nature of principled nonviolent action. He refers to *ahimsa* or noninjury with love and compassion, *satyagraha* or the desire for absolute truth, and *tapasya* or the willingness to self-suffer in reaching one’s goals in order to break the cycle of violence (Mayton, 2001).

Nonkilling is a relatively new term that builds on pacifism and nonviolence. Glenn Paige introduced the term nonkilling in 2002 to refer to “the absence of killing, threats to kill, and conditions conducive to killing in human society (Evans Pim 2009, 15).” Within Paige’s conceptualization, nonkilling generally refers to killing human beings but may also refer to the killing of animals. Just as was the case for nonviolence, adding the prefix non- to killing does not merely imply the absence of killing. Nonkilling is not only the act of not taking the life of another human being as it includes the active change in society to eliminate weapons designed to kill and to change governments and social institutions so they do not threaten, encourage, or

sanction killing. Paige also points to the advantage of the concept of nonkilling over nonviolence in that it is more concrete and measurable.

Nonkilling encompasses some aspects of both pacifism and nonviolence yet in some areas it also extends beyond what those concepts reflect. While most types of pacifism address killing within war, nonkilling goes further and addresses killing in all societal contexts. Nonviolence requires someone to refrain from direct violence that may result in immediate injury or harm. Nonkilling ostensibly looks like nonviolence in the extreme where the injury is serious enough to result in death. However, as defined and elaborated by Paige (2009) and Evans Pim (2009), nonkilling calls for the elimination of both direct and structural violence within a society. Structural violence is the type of violence that harms and sometimes even kills in a slow, indirect way that is oftentimes impersonal and difficult to observe, as it is institutionally ingrained in a culture or society. While nonviolent actions might be directed at eliminating structural violence, nonkilling must address structural violence in whatever form it takes. In this way nonkilling can be seen as encompassing positive peace where there is an absence of conflict plus there is an active promotion of social justice. A nonkilling society might also be construed to support the building of a culture of peace as described by de Rivera (2004).

Mayton (2009) demonstrated that pacifists and nonviolent people have many similar characteristics and beliefs. Similarly, nonkilling overlaps considerably with both pacifism and nonviolence even if there are some key differences. It seems clear that much of the research and writings on nonviolence described below has relevance to nonkilling and nonkilling societies.

Brief History of Psychological Considerations of Pacifism and Nonviolence

William James (1995 [1910]), the father of American Psychology and a self-described pacifist, was the first psychologist to write about nonkilling alternatives to war. While he did not use the terms nonviolence or nonkilling, as the first peace psychologist, James recognized that war can have positive psychological consequences for individuals and society despite the killing, carnage, and suffering (Deutsch, 1995). James encouraged psychologists to assist society in finding alternatives that did not involve killing to develop the same levels of discipline and heroic action as war. While scattered articles on pacifism appeared over the next two decades, the 1930s saw a collection of research studies on the measurement of pacifism in the psychological journals (e.g. Carleson, 1934; Droba, 1931). Driven by expanding theory and research on psychological measurement, attitudes toward pacifism and war were stud-

ied regularly as part of large test batteries up to and through World War II. Following World War II, studies of pacifism in the United States waned and little was published in mainstream psychology journals. A letter to the editor of the *American Psychologist* by Gladstone and Kelman (1951) stirred up the debate a bit after the war but research on pacifism and nonviolence remained sparse for nearly two decades. Psychologists doing research related to pacifism and nonviolence during this time were more likely to use other publishing outlets like the *Journal of Peace Research* or *Conflict Resolution*.

The civil rights activities in the 1960s seemed to spur an increasing interest in nonviolence. Many carefully analyzed the nonviolent actions of Dr. Martin Luther King Jr. (e.g. Hare and Blumberg, 1968; Kelman, 1968) and others analyzed the earlier work of Mohandas Gandhi (e.g. Erikson, 1969). The first book to deal specifically with the psychological aspects of nonviolence in a broader context appeared in 1974 when Leroy Pelton published *The Psychology of Nonviolence*. Pelton's (1974) classic text related the work of mainstream psychology (perception, attitudes, persuasion, social power, and cognition) to the nonviolent actions of Gandhi in South Africa and India. While Pelton's treatise should have had a greater impact on the psychological field, the vast majority of psychologists were concerned with understanding the Cold War between the United States and the Soviet Union which was rapidly heating up and moving the doomsday clock closer to midnight from the mid 1970s through the late 1980s. With the 1990 breakup of the Soviet Union and the establishment of the of the Division of Peace Psychology in the American Psychological Association in same year, many peace psychologists began to shift gears and direct their research efforts toward nonviolence.

V. K. Kool (1990, 1993a) edited two books on nonviolence based on presentations made at two conferences on nonviolence he organized in 1988 and 1992. The themes in these books helped to focus the research and writing of a handful of peace psychologists. The publication of *Peace & Conflict: Journal of Peace Psychology*, the new journal of the Society for the Study of Peace, Conflict, and Violence, provided an additional outlet for psychologists to publish on nonviolence. In addition to the theory development and research on nonviolence by Kool and his colleagues (e.g. Kool, Diaz, Brown, and Hama, 2002; Kool and Sen, 1984) research and writing on nonviolence included the work by Brenes (1999, 2004), Johnson and her colleagues (1998), Mayton and his colleagues (e. g. 2000, 2001; Mayton, Diessner, and Granby, 1993, 1996), and Schwebel (2006) to name a few.

Nonviolence became recognized as an integral part of the field of peace psychology with significant attention given to it in the classic text, *Peace, Con-*

flict, and Violence: Peace Psychology for the 21st Century edited by Dan Christie, Dick Wagner, and Deborah DuNann Winter (2001). Subsequent important introductory books on peace psychology by Rachel MacNair (2003) and by Herb Blumberg, Paul Hare, and Anna Costin (2006) also devoted considerable attention to nonviolence. Recently, two books have been published which focused more directly on theory and research on nonviolence and peace psychology. In 2008 V. K. Kool published *Psychology of Nonviolence and Aggression* and in 2009 Dan Mayton's *Nonviolence and Peace psychology: Intrapersonal, Interpersonal, Societal, and World Peace* was published. Nonviolence research and writing in the other social sciences also grew during this time period and have significantly impacted peace psychology. Anthropologists like Sponsel and Gregor (1994), criminologists like Barak (2003), historians like Sharp (1973, 2005) or Zinn (2002), peace studies professors like Hastings (2005) or Nagler (2004), philosophers like Holmes and Gan (2005), political scientists like Ackerman and Kruegler (1994), Paige (1993, 2009), or Steger (2003), and religious studies professors like Harak (2000) or Wink (2000), all have added to our understanding of nonviolence.

Theories of Nonviolence

Over the last two decades several theories of nonviolence have been developed (Mayton, 2009). Our current understanding of some of these theories of nonviolence will be summarized next along with some suggestions for future theory development.

Kool (1990, 2008) has developed a three-dimensional model of nonviolence. Each dimension of Kool's cube reflects a psychological variable and these in combination explain the differences between violent and nonviolent people. The first dimension is aggression, which at one extreme is high and is low at the other. The second dimension is moral concerns, which also varies from high to low. The third dimension is power, which at one extreme is power for self-gratification and at the other extreme is integrative power that is shared with others. A violent individual would be at the corner of Kool's cube that represents high aggression, low moral concerns, and self-gratifying use of power. A nonviolent individual would be at the opposite corner of Kool's cube that represents low aggression, high moral concerns, and the use of integrative power to benefit many.

Brenes (1999, 2004) has developed a circular model of peacefulness or nonviolence. The center of the circle represents universal peace and three quadrants radiate out from this hub of universal peace. One slice, or third

of the circle, represents peace with oneself and includes the mind, heart, and body. Critical values that Brenes has identified for peace with oneself include self-regard, autonomy, harmony, love and compassion, tolerance, and a consciousness of one's needs and the right use of satisfiers. The second slice of Brenes' circle of peacefulness involves peace with others in personal relationships and with larger society. This second aspect outlines the importance of responsibility and solidarity with participation and the promotion of a common good and peaceful conflict resolution. The third slice addresses peace with nature in terms of ecological consciousness, biodiversity, and a natural balance. Critical aspects of this third of Brenes' model include the respect of life, protection of biodiversity, conservation, sustainable resource use, and ecological security. Nonviolence is intertwined in each of the three themes within this model (Mayton, 2009).

Ritter (2005) has developed a two-dimensional model of nonviolence that classifies four basic types of conflict resolution and is presented in Figure 1. Both the means employed and the ends desired might be either violent or nonviolent. The four types Ritter describes are (1) violent means and violent ends (destructive action or principled violence), (2) violent means and nonviolent ends (suppressive action or strategic violence), (3) nonviolent means and violent ends (coercive action of strategic nonviolence), and (4) nonviolent means and nonviolent ends (conversion or principled nonviolence). Any genocide or ethnic cleansing would be an example of principled violence or Ritter's first type. The second type or strategic violence would be the description of a conventional war fought to defeat a tyrant and bring a lasting peace. The third type or strategic nonviolence would be a situation where one group uses nonviolent actions to defeat an enemy out of pragmatics and then would subjugate or dominate the enemy once in power. Principled nonviolence or type four involves both nonviolent means and nonviolent ends and, according to Ritter, is the preferred approach for an optimal resolution of the conflict. Because this is a method based on love and compassion, Ritter believes this is most likely to break the cycle of violence between all parties in the conflict and lead to a more lasting peace.

Figure 1. Ritter's Two-dimensional Theory of Nonviolence

		MEANS	
		Violent	Nonviolent
ENDS	Violent	Principled Violence (destructive action)	Strategic Nonviolence (coercive action)
	Nonviolent	Strategic Violence (suppressive action)	Principled Nonviolence (conversion)

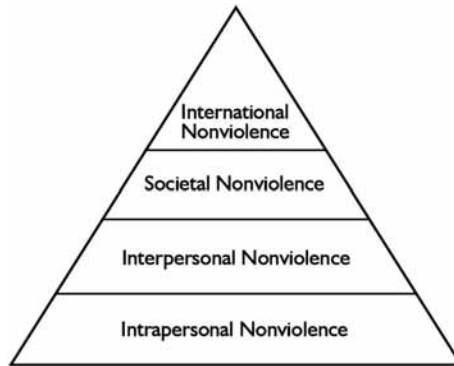
Burrowes (1996) has also developed a two-dimensional model of nonviolence that differentiates four types of nonviolent action. Any nonviolent action might be classified as either principled or pragmatic on one dimension and either reformist or revolutionary on the other.

A principled action is based on the belief that nonviolence is the ethically best approach whereas a pragmatic action considers nonviolence as the most effective alternative available. A reformist action attempts to change policies within existing social structures whereas a revolutionary approach attempts to change the fundamental structure in a society. Thus, nonviolent approaches might be (1) principled and reformist, (2) principled and revolutionary, (3) pragmatic and reformist, or (4) pragmatic and revolutionary. While finding nonviolent actions where all persons involved fit nicely and consistently into one of Burrowes' four quadrants is not likely, it is possible to identify nonviolent actions where the majority of participants generally fit into one of the four types. When analyzing the civil rights movement in the United States during the 1960s, one can see principled-reformist actions. Martin Luther King Jr. and his followers were believers in principled nonviolence and were reformists in the sense that they wanted the US Constitution and laws enforced with little interest in changing the system. Gandhi and his followers would generally be considered principled-revolutionary when they used nonviolence actions against the Salt laws imposed by the British. In this case nonviolence was principled and they desired complete independence from the British that was a clear structural change in their country. An environmental activist who works to have existing national laws or international treaties enforced to protect an endangered species like pelicans or whales might be an example of a pragmatic-reformist. The Solidarity Movement in Poland might typify the fourth quadrant or pragmatic-revolutionary action.

The theories of nonviolence of Kool (1990, 2008) and Brenes (1999, 2004) deal with nonviolence at the individual or human level. Neither approach explains the dynamics between different levels of nonviolence. For instance, what is the relationship(s) between intrapersonal nonviolence, interpersonal nonviolence, and societal nonviolence? Are these three levels of nonviolence independent of one another or are they related in a hierarchical manner? Black Elk, an Oglala Sioux leader describes intrapersonal nonviolence or intrapersonal peace as essential for interpersonal peace, and peace between nations when he said "The first peace, which is the most important, is that which comes within the souls of men when they realize their relationship, their oneness, with the universe and all its Powers, and when they realize that at the center of the universe dwells Wakan-Tanka,

and that this center is everywhere, it is within each of us. This is the real Peace, and the others are but reflections of this. The second peace is that which is made between two individuals, and the third is that which is made between two nations. But above all you should understand that there can never be peace between nations until there is first known that true peace which, as I have often said, is within the souls of men (Brown 1989: 115).” If Black Elk is correct then the three levels of nonviolence might be characterized by the same type of hierarchy that Maslow used for his hierarchy of needs (See Figure 2). The most basic level of the hierarchy of nonviolent experience would be intrapersonal nonviolence. Once individuals achieve intrapersonal nonviolence, they then can fully concentrate on having interpersonal nonviolence in their lives. Once they achieve interpersonal nonviolence, then societal nonviolence can be a major focus.

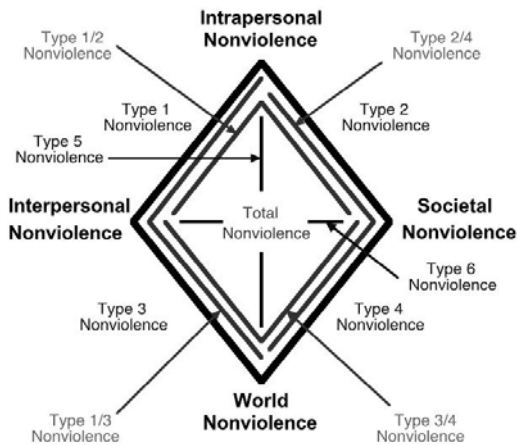
Figure 2. Hierarchical Model Of Nonviolence



If the levels of nonviolence are not hierarchically related as described in Figure 2, what other models might capture how human beings experience the levels of nonviolence? One approach might be a diamond model as depicted in Figure 3. Within this model of nonviolence a person might experience intrapersonal nonviolence but not interpersonal, societal nonviolence, or world nonviolence. This would be consistent with the claim of Black Elk. However, a person might also exhibit interpersonal nonviolence without intrapersonal, societal or world nonviolence. In fact it would be possible within this model for someone to exhibit societal nonviolence or world nonviolence by themselves without the other three levels of nonviolence as well. In addition a person might experience any combination of two levels

of nonviolence or all three levels. Type #1 nonviolence would involve both intrapersonal and interpersonal nonviolence. Type #2 nonviolence would involve both intrapersonal and societal nonviolence. Type #3 nonviolence would involve both interpersonal and world nonviolence and Type #4 would involve both societal and world nonviolence. Type #5 nonviolence would involve both intrapersonal and world nonviolence and Type #6 would involve both interpersonal and societal nonviolence. There would also be people who might exhibit three levels of nonviolence as represented by Type 1/2, Type 1/3, Type 2/3, and Type 3/4 in Figure 3. Total nonviolence would involve all four levels of nonviolence.

Figure 3. Diamond Theory of Nonviolence



The models presented in Figures 2 and 3 are only two of many potential ways of describing the interrelationships between the levels of nonviolence. Investigating the dynamics between intrapersonal, interpersonal, societal, and international nonviolence is an important area for future empirical research.

The theories of nonviolence of Ritter (2005) and Burrowes (1996) deal with nonviolent actions and develop a method of classification to better understand the intent and goals of nonviolent movements. While both theorists do support certain types of nonviolent actions as more likely to be effective, little data is available at the present time to determine the validity of their theories and the predictions from them. For instance, is Ritter's principled nonviolence more effective than strategic nonviolence in terms of long term outcomes and under what conditions?

Measurement of Nonviolence

Early measures of pacifism as part of large-scale assessment programs go back to the 1930s (e.g. Carleson, 1934; Droba, 1931). Mayton, et al. (2002) have reviewed and evaluated the current assessments of nonviolence and found the Nonviolence Test (Kool and Sen 1984; Kool, 2008) and the Teenage Nonviolence Test (Mayton, 2009) to be reliable and valid measures, recommended for use.

The Nonviolence Test (NVT) is a 65-item scale that utilizes forced choice questions (Kool and Sen, 1984). This scale was designed for use with persons older than 17 years and is based on Gandhian principles and behaviors. Total scores are calculated by counting the number of nonviolent choices selected for 36 items while the remaining 29 items are fillers. Mayton, et al. (2002) found the NVT to be psychometrically sound and “to be a reasonable choice to use with adult samples where a global score is sufficient (351).”

The Teenage Nonviolence Test (TNT) is a 55-item scale that utilizes Likert-type items (Mayton, et al. 1998). This scale was originally designed for use with junior high and senior high school students although recent data has demonstrated its appropriateness for college students and adults (Mayton, 2009). The TNT contains five reliable and valid subscales based on the philosophy of Gandhi. These are physical nonviolence, psychological nonviolence, helping/empathy, *satyagraha* (search for truth), and *tapasya* (willingness to self-suffer).

Correlates of Nonviolence

With the development of psychometrically sound measures to assess nonviolence a growing body of research on nonviolence has begun to emerge. This section summarizes the research that has been conducted in developing our understanding of nonviolence at the intrapersonal, interpersonal, and societal levels. Research conducted with the NVT and TNT is the major focus of this review.

While Kool (1993b, 2008) views moral thinking as an integral aspect of nonviolence, research data supporting this claim is not available. Studies by Kenniston (1990), Kool and Keyes (1990), and Mayton, Diessner, and Granby (1993) fail to indentify significant relationships between the NVT and measures of moral thinking. Kool and Keyes did find persons with stronger nonviolence dispositions held fewer Machiavellian tendencies.

Mayton and his colleagues (Mayton, 2004; Mayton, Diessner and Granby, 1993) have investigated the value relationships of the NVT using

the Schwartz Value Survey (SVS, Schwartz, 1994). The SVS measures ten universal value types which include

1. **Power:** Social status and prestige, control or dominance over people and resources.
2. **Achievement:** Personal success through demonstrating competence according to social standards.
3. **Hedonism:** Pleasure and gratification for oneself.
4. **Stimulation:** Excitement, novelty, and challenge in life.
5. **Self-direction:** Independent thought and action—choosing, creating, and exploring.
6. **Universalism:** Understanding, appreciation, tolerance, and protection for the welfare of *all* people and for nature.
7. **Benevolence:** Preservation and enhancement of the welfare of people with whom one is in frequent personal contact.
8. **Tradition:** Respect, commitment, and acceptance of the customs and ideas that traditional culture or religion provide.
9. **Conformity:** Restraint of actions, inclinations, and impulses likely to upset or harm others and violate social expectations or norms.
10. **Security:** Safety, harmony, and stability of society, of relationships, and of self. (Schwartz, 1994: 22)

The correlations between the NVT and each of these value types from two samples of US college students (Mayton, 1994; Mayton, Diessner and Granby, 1993) are presented in Table 1. Nonviolent individuals exhibited higher priorities for the self-transcendent values of benevolence and universalism and also higher priorities on conformity values for both samples.

Mayton and his colleagues have also conducted four separate studies (Browne, et al., 2010; Hossner, et al. 2004; Mayton, et al., 2007, 2008) that investigated the value relationships of the subscales of the TNT using either the SVS or the Portrait Value Questionnaire (PVQ, Schwartz, 2003) with US adolescents and college students. The correlations between the TNT subscales and the ten value types from these studies are also presented in Table 1. Nonviolent individuals based on TNT subscale scores also consistently exhibited higher self-transcendent values and conformity values as well. When the TNT is used to determine nonviolent dispositions, the power value type and the hedonism value types are consistently negatively correlated. Nonviolent individuals tend to place lower priorities on power and hedonism.

Table 1. Correlations Between Nonviolence and Values Across Multiple Studies

Value Types	TNT Subscales										NVT
	Physical Nonviolence		Psychological Nonviolence		Helping/Empathy		Satyagraha		Tapasya		
<i>Power</i>	-.42** .39**	-.40** -.34**	-.50** .37**	-.46** -.38**	-.08 .12	-.47** -.29**	-.10 -.03	-.25** -.30**	-.22** -.04	-.32** -.30**	-.22* -.16
<i>Tradition</i>	-.01 .43**	.03 .05	.04 .31**	.03 -.01	.31** .10	.19* -.08	.11 .14	.06 -.18*	.08 .24*	.14 -.02	.16 .30**
<i>Hedonism</i>	-.34** .38**	-.31** -.10	-.29** .34**	-.30** -.18*	-.04 -.03	-.33** -.07	.06 -.21*	-.29** -.18*	-.10 -.23*	-.32** -.18*	-.12 -.17
<i>Stimulation</i>	-.28** -.35**	-.28** -.22**	-.28** -.33**	-.29** -.14	.10 .11	-.26** -.12	.02 .01	-.07 -.11	.00 .07	-.16* -.08	-.15 .10
<i>Security</i>	-.09 .16	-.05 -.04	-.05 .13	-.09 .04	.18* .29*	-.08 .00	.19* .22*	.17* -.56	.07 .13	-.03 .52	-.04 .04
<i>Conformity</i>	.01 .54**	.27** -.02	.05 .49**	.22** .05	.28** .26*	.21** .01	.16* .31**	.04 -.15	.14 .24*	.01 .12	.20* .21*
<i>Self-direction</i>	-.11 -.14	-.08 .03	-.11 -.02	-.10 .09	.15* .28**	-.12 .07	.17* .40**	.05 .23*	-.04 .25*	-.04 .13	.14 -.04
<i>Benevolence</i>	.18* .46**	.40** .24**	.26** .53**	.44** .28**	.34** .47**	.38** .34**	.23** .47**	.12 .18*	.22** .28**	.29** .27**	.35** .31**
<i>Universalism</i>	-.02 .33**	.17* .12	.01 .38**	.29** .16*	.20** .43**	.18* .13	.15* .39**	.21* .34**	.05 .48**	.13 .09	.42** .31**
<i>Achievement</i>	-.18* -.28**	-.05 -.12	-.07 -.29**	-.01 -.09	.15* .04	-.00 .23	.18* .01	.08 .07	.05 -.06	.07 -.10	.01 .11

* significant at the .05 level ** significant at the .01 level

Mayton and his colleagues (Browne, et al., 2010; Mayton, et al., 2007, 2008) also investigated the relationship between the TNT subscales and a range of measures theorized to be associated with being a peaceful person (Nelson, 2005). Each of the studies of US college students used a different but partially overlapping battery of personality assessment that included the TNT. The correlations between fifteen personality variables and the five subscales of the TNT are presented in Table 2.

Nonviolent persons based on their subscale scores on the TNT consistently demonstrated more empathy, more self-control, and higher need for cognition along with less anger and less materialism. While not as consistently, nonviolent persons also tended to exhibit more life satisfaction, more mindfulness, a higher desire for control, and more optimism along with less dogmatism.

Table 2. Correlations of TNT Subscales and Selected Traits Across Multiple Studies

	TNT Subscale									
	Physical Nonviolence		Psychological Nonviolence		Helping/Empathy		Satyagraha		Tapasya	
<i>Empathy</i>	.36**	.39**	.35**	.43**	.39**	.30**	.26**	.23**	.16*	.23**
<i>Life Satisfaction</i>	.21**	.08	.16*	.18*	.23**	-.01	.24**	-.01	.14*	-.06
<i>Self control</i>	.41**	.26**	.48**	.40**	.26**	.17*	.39**	.26**	.17*	.20**
<i>Meaningfulness of Life-Presence</i>	.26**	.12	.31**	.06	.36**	.13	.30**	.02	.17*	.08
<i>Meaningfulness of Life-Search For</i>	-.03	-.07	-.09	-.14	.20*	-.01	-.03	.07	.02	-.12
<i>Need for Cognition</i>	.16*	.28**	.16*	.41**	.17*	.27**	.16*	.38**	.08	.18**
		.13		.26**		.34**		.43**		.35**
<i>Desire for Control</i>		-.03		.12		.24**		.24**		.20**
<i>Mindfulness</i>	.09	.15	.35**	.26**	.30**	.08	.39**	.14	.29**	.11
<i>Self-esteem</i>		.00		.02		-.03		.05		.08
<i>Self-acceptance</i>		.18*		.33**		.03		.14		.08
<i>Happiness</i>		.03		.10		.01		-.10		.03
<i>Optimism</i>		.17*		.24**		.11		.20*		.07
<i>Materialism</i>	-.37**	-.41**	-.46**	-.49**	-.16*	.34**	-.11	-.34**	-.22**	.29**
<i>Dogmatism</i>	-.21**		-.35**		-.12		-.04		-.06	
<i>Anger</i>	-.28**	-.26**	-.23**	-.34**	-.13	-.23**	-.01	-.32**	-.05	-.24**
		-.31**		.36**		-.27**		-.16*		-.19*

* significant at the .05 level ** significant at the .01 level

Two studies were conducted to determine the relationship between the Big Five personality traits and the TNT subscales (Browne, et al., 2010; Mayton, et al., 2008). Using the BFI-10 the correlations with the TNT subscales with US college student samples are presented in Table 3. The traits of agreeableness and conscientiousness are consistently related to the same four of the five TNT subscales (not tapasya).

Spirituality was measured with three different assessments in each of the US college samples (Browne, et al., 2010; Mayton et al., 2007, 2008). The correlations between the subscales of the TNT and the three different spirituality measures are also presented in Table 3. The data on the relationship of spirituality and nonviolence appears to be very mixed at best with no consistent findings emerging to date.

Table 3. Correlations of TNT Subscales and Selected Traits Across Multiple Studies

	TNT Subscale									
	Physical Nonviolence		Psychological Nonviolence		Helping/Empathy		Satyagraha		Tapasya	
Big Five Scales										
<i>Extraversion</i>	-.10	.12	-.23*	.16*	.06	.13	-.21*	.11	-.01	.13
<i>Agreeableness</i>	.36**	.18*	.39**	.31**	.22*	.22**	.23*	.16*	.03	-.01
<i>Conscientiousness</i>	.42**	.12	.35**	.22**	.31**	.15*	.22*	.26**	.11	.08
<i>Emotional Stability</i>	-.11	-.18*	-.06	.04	.09	-.05	.18*	.06	-.04	-.05
<i>Openness</i>	.03	-.06	.17	.08	.25**	.09	.16	.24**	.11	.07
Spirituality Measures										
<i>Daily Spiritual Experience Scale¹</i>	-.18*		-.25**		-.29**		-.21**		-.08	
Spiritual Transcendence Scale (STS)										
<i>STS Prayer</i>	-.15*		-.14*		-.13		-.14		.07	
<i>STS Universalism</i>	-.16*		-.07		-.24**		-.24**		-.05	
<i>STS Connectivism</i>	-.05		.05		-.08		-.09		-.06	
Spiritual Assessment Inventory (SAI)										
<i>SAI Awareness</i>	.15		.08		.09		-.11		.01	
<i>SAI Realistic Acceptance</i>	.12		.05		.16		-.05		.14	
<i>SAI Disappointment</i>	-.03		-.15		.07		-.03		.11	
<i>SAI Grandiosity</i>	-.06		-.17*		-.15		-.20*		-.19*	
<i>SAI Instability</i>	-.12		-.20*		-.02		-.18*		.04	
<i>SAI Impression Management</i>	.21*		.11		.16*		-.03		.07	

* significant at the .05 level ** significant at the .01 level
¹ low scores indicate higher levels of daily spirituality

Additional Research Questions on Nonviolence and Nonkilling That Need Attention

As can be seen, there are still many issues related to our understanding of nonviolence that have not been fully studied and need to be. While the number of journal articles and books on nonviolence has increased over the last few decades, research and theory on nonviolence lags far behind topics related to violence in psychology and the social sciences.

When Glenn Paige called for nonkilling societies, he was building on the previous work related to pacifism and nonviolence. The similarities between nonviolence and nonkilling have been described here, however, the differences are not totally clear from an empirical perspective. While measures of nonviolence exist, none exist for nonkilling. Measures assessing nonkilling beliefs and behaviors as well as indicators for nonkilling societies would enable a deeper understanding of the relationship between nonviolence and nonkilling.

Several promising theories of nonviolence have emerged. As stated earlier in this chapter, these theories need to be validated. In particular research is also needed to assess the dynamics between intrapersonal nonviolence, interpersonal nonviolence, and societal nonviolence. Outstanding research questions that seem especially timely include:

1. Does a person need to experience inner peace before he or she can engage in principled nonviolent action at interpersonal, societal or international levels?
2. What are the necessary and sufficient conditions for a nonviolent political action to be successful?

These are not easy questions to answer and will require a series of studies but the effort will be enlightening and will advance peace psychology greatly.

A picture of a nonviolent or peaceful person is beginning to emerge from several correlational studies. This line of research needs replication in more locations with diverse samples to fully understand the robustness of the relationships identified to date. In addition to cross-sectional studies longitudinal studies are also called for. One particularly puzzling finding within this line of research to date has been the mixed and equivocal finding relating spirituality to nonviolent tendencies. Given the strong religious values of peaceful and nonviolent people like Mohandas Gandhi, Martin Luther King Jr., Abdul Ghaffar Kahn, and others, spirituality and religion has the potential to lead to nonviolence and nonkilling. Outstanding research questions that seem especially timely include:

1. What types of spirituality are consistent with nonviolence?
2. How can religion work to increase levels of nonviolence?
3. How do religions work against nonviolence?
4. How can spiritual and religious people be empowered to increase levels of nonviolence consistent with their beliefs?

The personality profile of a nonkilling person has not been analyzed or assessed empirically and this would be a productive line of research on the psychological

underpinnings of nonkilling. Each of the above four questions can be modified to address nonkilling and its potential spiritual and religious influences.

In addition to the issues mentioned above, there is a lack of empirical research that could help us understand how a person becomes a nonviolent and/or a nonkilling person. What factors encourage a person to be nonviolent? What factors encourage a person to be a nonkilling person? Bonta (1996, 1997) has reviewed research on peaceful, nonviolent, and nonkilling societies. His descriptions describe childrearing practices in peaceful societies that are distinctly different from western, individualistic societies. Emphasizing cooperative games over competitive games, teaching the importance of sensitivity to the needs of others, using multiple methods to show that aggressiveness is unacceptable, and instilling an ambiguity within children about their "specialness" within the community are all strategies employed to foster community membership and cooperation. Both idiographic and nomothetic research studies are needed to help us understand how these or other factors might encourage a person to be more of a nonviolent or nonkilling person in our modern societies. More case studies of the life and background of nonviolent and nonkilling exemplars could be illuminating in identifying commonalities and in identifying differences with those who are violent. Large-scale studies can also be helpful to identify similarities among those who have nonviolent and/or nonkilling dispositions. Studies to identify differences between those with nonviolent/nonkilling dispositions and those who do not. For instance, Panster (2004) recently investigated the relationship of nonviolence and parenting styles of men and women and found authoritarian parenting to be detrimental to the development of nonviolent dispositions. Having a permissive father was positively correlated with nonviolent dispositions. These findings are provocative and encourage future research of this type.

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Lifeism and Nonkilling

I Am What Am *

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Introduction

Nonkilling is more than another term in the peace lexicon. It is a term that implicates the sanctity of life itself—the idea that within all forms of life, there is an inherent life impulse toward which we should show reverence and respect. In many ways, it is a self-evident truth that the life force within us is the same life force that moves, propels, and shapes the universe itself. Because of this, nonkilling is more than a political or social policy more than a moral or religious premise, more than cultural assumption or ethos, it is a fundamental principle of the universe that is rooted within the mysteries of life—its power, its diversity, its omnipresence. Raising our consciousness and becoming aware of life itself moves us to understand life with a sense of awe, humbled by its mysteries, yet elated and spirited by its presence and consequences. We are alive. We are part of life. And, because of this, we must act in ways that encourage and support this fact. But, we also must act in ways that are responsive to its requirements and demands (Marsella, 1994, 1995).

When Glenn Paige (2002, 2009) first advanced the idea of nonkilling in his now landmark volume *Nonkilling Global Political Science*, he wrote about the possibilities of a nonkilling society:

There is neither killing of humans nor threat to kill. This may extend to animals and other forms of life, but nonkilling of humans is a minimum characteristic ... Life in a nonkilling society is characterized by no killing of human beings and no threats to kill, neither technologies nor justifications for killing, and no social conditions that depend upon threat or use of lethal force (Paige, 2002: 2)

* To Glenn D. Paige, whose hopes and vision for a world of nonkilling have inspired so many to work for the causes of peace and nonviolence, and to appreciate and respect the value of the life about us.

Today, amidst the near apocalyptic conditions we are facing from endless wars and violence, the importance of nonkilling has assumed new and critical levels of consideration. The human carnage we are witnessing can no longer be tolerated or justified. And, as individuals, societies, and nations—indeed as a global community—, we are also engaged in a violent and destructive assault on the natural and environmental life about us. It would not be an understatement to say we are engaged in killing much of life. I am not speaking here of the killing of animal life for food, something we should consider in any case, but rather the killing of our oceans, air, land, and nonhuman life forms about us—I am speaking of our killing the complex ecology of life that has sustained humans for so long, of the extinction of so many life forms, of the adverse impact we have had upon the web of life about us. Nonkilling has as much implication for this as it does for human life.

It seems to me that with these acts, we have embarked on a destructive pathway in which killing has achieved a priority that now endangers our planet and all of its forms of life. There is in our actions an absence of humility, and an abandonment of the wisdom necessary to grasp the consequences of our actions. We are engaged in widespread and indiscriminate killing, and there is an urgent need for all of us to re-consider our acceptance and of killing and its outcomes. It is clear to me we have forgotten, ignored, or dismissed any reverence for life, the very force that animates the universe and that exists about us in endless forms. What we are doing to our world as we exploit and dominate its magnificent resources for our selfish and limited ends is violence, it is destruction, it is killing—it is depriving our world of life. Derrick Jensen, in an interview with Mickey Z (2011), shared the following comments about our assault on life in our planet.

- Every square mile of ocean hosts 46,000 pieces of *floating plastic*
- Eighty-one tons of *mercury* is emitted into the atmosphere each year as a result of electric power generation
- Every second, 10,000 gallons of *gasoline* are burned in the US
- Each year, Americans use 2.2 billion pounds of *pesticides*
- Ninety percent of the *large fish* in the ocean and 80 percent of the world's *forests* are gone
- Every two seconds, a human being *starves* to death

The Global Europe Anticipation Organization (2011) describes the situation in dire terms:

The dilapidated state of the international system is now so advanced that its cohesion is at the mercy of any large-scale disaster. Just look at the inability of the international community to effectively help Haiti over the past year, the United States to rebuild New Orleans for six years, the United Nations to resolve the problems in Darfur, Côte d'Ivoire for a decade, the United States to progress peace in the Middle East, NATO to beat the Taliban in Afghanistan, the Security Council to control the Korean and Iranian issues, the West to stabilize Lebanon, the G20 to end the global crisis be it financial, food, economic, social, monetary, ... to see that over the whole range of climatic and humanitarian disasters, like economic and social crises, the international system is now powerless.

To this list can be added the major uprising and rebellions across Middle East and North Africa nations (e.g. Egypt, Tunisia, Libya, Jordan, Syria, Yemen, and Bahrain) and the tragic Earthquake/Tsunami/Nuclear Radiation events in Japan in the Sendai/Fukushima area. The list, of course, seems endless in the destruction that is occurring across the globe. And we must be reminded that killing, destruction, and death arises not only from wars and disasters, but also in more subtle forms of cultural invasion and hegemony under the auspices of economic development. An important reference for grasping the scope and complexity of our situation has been written by Frank Biancheri (2011), in his volume, *The World Crisis: The Path to the World Afterwards*. Yet another excellent source for grasping the global context of the risks ahead is The World Economic Forum's (2011) volume on *Global Risks-2011*. In all instances, what is concluded is that the world is heading for a dreadful reckoning because we have exploited world resources to the point of scarcity for the consumer cultures we have created and promote. The world cannot sustain an endless global production and consumption economy without collapse.

Many writers are now warning us of the destructive consequences of our way of life. Magdoff (2011) has called for a new ecological civilization:

Given the overwhelming harm being done to the world's environment and to its people, it is essential today to consider how we might organize a truly ecological civilization—one that exists in harmony with natural systems—instead of trying to overwhelm and dominate nature. This is not just an ethical issue; it is essential for our survival as a species and the survival of many other species that we reverse the degradation of the earth's life support systems that once provided dependable climate, clean air, clean water (fresh and ocean), bountiful oceans, and healthy and productive soils ... However, building an ecological civilization that is socially just will not automatically happen in post-capitalist societies. It will occur only through the concerted action and constant vigilance of an engaged population (Magdoff, 2011: 1, 21).

Similarly, Goleman writes of the need for a new ecological intelligence:

Ecological intelligence lets us apply what we learn about how human activity impinges on ecosystems so as to do less harm and once again to live sustainably in our niche—these days the entire planet. Today's threats demand that we hone a new sensibility, the capacity to recognize the hidden web of connections between human activity and nature's systems and the subtle complexities of their intersections. This awakening to new possibilities must result in a collective eye opening, a shift in our most basic assumptions and perceptions, one that will drive changes in commerce and industry as well as in our individual actions and behaviors . . . We have no sensors nor any innate brain system designed to warn us of the innumerable ways that human activity corrodes our planetary niche. We have to acquire a new sensitivity to an unfamiliar range of threats, beyond those our nervous system's alarm radar picks up—and learn what to do about them. That's where ecological intelligence enters the picture (Goleman, 2010: 1, 4).

Although none of the previous writers use the word killing in discussing their trenchant observations about the state of destruction occurring and its apocalyptic consequences, it is clear that we are engaged in a widespread killing. We are killing the world, we are killing humanity, we are killing life.

With these images of “killing” in mind, and with a recognition and commitment to the nonkilling ethos, I submit the following thoughts about life, especially the urgent need for all of us to move beyond pre-occupations we have held about the privileged position we have given to humanity and humanism itself, to a new awareness and re-thinking of life as the cradle of survival for our planet. We are in need of a set of beliefs and premises that are in accord with the nonkilling view and that that can guide our paths toward a new sustainable and life-supporting world. I have termed this view “*Lifeism*.”

Lifeism

Reflections on the Beginning

It is my thinking that we too—as human beings -- have sought answers to the important questions of life—purpose, meaning, human nature—by ignoring one of the most obvious known truths about our reality that are rooted within the very act of cosmic creation—that moment known affectionately—and incorrectly—as the “Big Bang Theory.” Think about this for a moment: How often do we seek answers to what we are, who we are, and what we can become within that very moment in which all creation occurred? The answer, for me, is seldom or not at all.

As is well known by scientists and lay people alike, it is assumed that there was enormous explosion of a single infinitesimally small mass or concentration of energy that was scattered in a billionths of a second across the space and time of our cosmos. This moment led to the formations of our galaxy with its billions of stars—the Milky Way Galaxy—and of billions of other galaxies that extend to a distance of 14.5—14.7 billion light years. And now, as if to make us human seem even more infinitesimal and inconsequential, astrophysicists are speaking of universes beyond our universe, and of an endless dance of creation—an endless process of “fission” (separation), and “fusion” (connection) evolving across space and time beyond anything we are capable of understanding. Fission and fusion, then, are at the heart of our universe and at the heart of the world about. Everywhere, we can see the separation and the connection, the diversity and the unity.

Learning from a Weed

Now what is important in these remarks that are rooted within the context of my personal experience, are the implications they have had for my embracing the act of cosmic creation as a powerful idea for bringing together three interesting topics: Life, Humanism, and Violence. I stumbled across my view about the connections among these topics by accident.

It was a hot day in the city of Atlanta, Georgia, where I live. And I was traveling to town only to be caught in a huge traffic jam on the major highway. The traffic was brought to a standstill, and after the usual blaring of horns, expressions of irritation, and collection of noxious fumes in the heat of day, I simply turned off my ignition, pulled down the window, and decided to wait it out. There is a certain comfort in accepting one's fate when it is clear that no amount of struggle will yield a change.

As I looked out the car window at the long concrete barrier separating different streams of driving, I noticed a small clump of green weeds pushing up between a crack in the concrete. There, amidst the oppressive heat, the noxious fumes, noise, and the absence of any substantial amount of earth and water, there emerged a small clump of green weeds. Do you grasp that image? Life was rearing itself under the harshest of conditions. Life would not be denied. There was no question of preference or choice of locations by this small weed, there was only its intent to grow, and to become what it was capable of becoming within the limited context it had been given. It was driven by life itself—that force that animates the universe, and all about us, and that pursues an evolutionary course of becoming in any of its manifestations all it is capable of being.

The automobile traffic began to flow once again, and I was forced to drive away from this green weed that had given me so much insight. But I took with me the image of that moment as an understanding of the mystery of life itself—its omnipresence, its omnipotence, its absolute capacity to exist in a myriad of ways, forms, and expressions inherent within it seed and sanctioned by its milieu. I understood in those few moments a number of things about life, purpose, and meaning. The Germans call this type of immediate insight and apprehending, *Verstehen*, *Verstehen* means sudden insightful learning across the totality of being, by the totality of being.

I do not wish to anthropomorphize or assign human qualities to a nonhuman form of life, but I kept wondering to myself if “hope” in humans is related to a felt sense that even under the harsh conditions they may find themselves in at any given moment, there is the potential to realize survival, growth, and development. Is the human experience of “hope” a response to the amazing forces of life to endure amidst adversity? Is “hope” the resonance or echo of the push and pull to survive amidst difficult circumstances? Is the life force within all of us, and within all living things a powerful residue of that moment of cosmic creation when the earliest origins of life were planted as part of an evolving universe? And so I write today to share some of my thoughts on this experience, and the subsequent idea of *lifeism* that emerged from the experience.

Here I cannot help but recall the thinking of Kazimierz Dabrowski (Dabrowski, 1964), a Polish psychologist and physician, used the term “positive disintegration” to refer to the inherent impulse for personal growth in human beings to fulfill their life potential to actualize all they are capable of being. Dabrowski and others in the human potential movement that emerged with great popularity in the early 1960’s (e.g., Abraham Maslow, Carl Rogers, Fritz Perls, Kurt Goldstein) saw an organic impulse in human beings to grow, and to become more than what they were at any given moment. The popular term “self-actualization,” that became the hallmark of Abraham Maslow’s (Maslow, 1954) work, was adopted throughout many psychologies. What I like, however, about Dabrowski’s work was the recognition of creative synthesis and desynthesis in which a person may find (feel, sense) their potential halted or restrained in one setting, and then must detach or leave this setting and try a new path. Indeed, depressive disorders were considered a positive sign that a person’s potential was being blocked, and a change in life setting was necessary (e.g., positive disintegration). I am also reminded here of the basic cosmic principles of “fission” (separation) and “fusion” (re-integration, connection).

But of special significance in these writings and views is the concept of “potential” for, in my opinion, potential is a fundamental characteristic of life and deserves a discussion. Munroe (2007) described potential in this way:

Potential is dormant ability, reserved power, untapped strength, unused success, hidden talents, capped culpability... All you can be but have not yet become, all you can do but have not yet done, how far you can reach, but have not yet reached, what you can accomplish but have not yet accomplished. Potential is unexposed ability and latent power (Munroe, 2007: 3).

Munroe is referring to human potential, but his words reveal a great deal about the potential of life itself. For isn't there present in each seed or spore of life, the capability to become all that it can be within the constraints of its milieu? Isn't life itself a seemingly endless potential to become varied, diverse, and fulfilled in all of its capabilities? Using the metaphor of the seed, Munroe (2007), states:

If I held a seed in my hand and asked you, “What do I have in my hand?” What would you say? ... A seed. However, if you understand the nature of the seed, your answer would be *fact*, but not *truth*. The truth is I hold a forest in my hand. Why? Because in every seed there is a tree, and in every tree there is fruit or flowers with seed in them. . . . In essence what you see is not all there is. That is potential. Not what is, but what could be (Munroe, 2007: 1).

This is what we are failing to grasp. This is what we are failing to understand as we proceed recklessly down a path of killing and destruction. We are destroying not only human lives, but life itself. It is insufficient for us to address the problems before us with humanistic and humanitarian efforts, important as these may be. We must move beyond humanity as our priority to a priority of the life.

Lifeism: Beyond Humanity

Identity: Separation and Connection

The emergence of a global era—a borderless psychological and physical milieu—confronts us with new and bewildering challenges to identity formation, change, and assertion. Age-old questions regarding identity—“Who am I?” “What do I believe?” “What is my purpose?” “What are my responsibilities?” “How did I become who I am?”—must now be answered amidst a context of unavoidable competing and conflicting global forces that are giving rise to increasing levels of uncertainty, unpredictability, confusion, and fear. Indeed,

many of our traditional political, economic, social, and religious institutions—long a major source for shaping individual and collective identities—have become part of the problems we face in identity formation and negotiation.

Personal, Cultural, and National Identities

A sense of identity is at the core of human existence and meaning. It is the self-reflective and dialogical anchor—both conscious and unconscious—that grounds us amidst the constant flow of changes in our settings and situations. It offers us a sense of who we are and what we are. The many and varied forces that shape our identity(s) are determined by both unique and shared experiences. The accumulation of these experiences—their dynamic interactions and their constant appraisal, evaluation, and modifications—form the crucible in which we as individuals and as members of groups claim place, position, and agency.

Human beings have many different identities, including personal, cultural, and national identities. Each of these identities commands loyalties since they define and position self. At a personal level, identity can be a source of great comfort or a source of great conflict and difficulty. This is very clear in adolescence when a youth is forming an identity, a process that continues through a lifetime. At a cultural level, identities enable us to function within boundaries of acceptability and deviance according to various norms accepted through socialization. Similarly, at a national level (see Footnote A at end of paper), our identification with a nation can lead to excessive nationalism, and a willingness to fight and/or die for our country. Erich Fromm (1955), the social psychoanalyst stated this very well:

The problem of the sense of identity is not, as it is usually understood, merely a philosophical problem, or a problem only concerning our mind and thought. The need to feel a sense of identity stems from the very condition of human existence, and it is the source of the most intense strivings. Since I cannot remain sane without the sense of “I,” I am driven to do almost anything to acquire this sense. Behind the intense passion for status and conformity is this very need, and it is sometimes even stronger than the need for physical survival. What could be more obvious than the fact that people are willing to risk their lives, to give up their love, to surrender their freedom, to sacrifice their own thoughts, for the sake of being one of the herd, of conforming, and thus of acquiring a sense of identity, even though it is an illusory one (Fromm, 1955: 63).

But amidst this quest for identity—essential to human functioning—we are missing an identification that may be critical for our survival, and that is

an identity with life itself. We seem oblivious to the fact that above all things, we are alive, and life deserves our loyalty as much as any other identity we may have or pursue. We are more than humanity, and we must identify ourselves with more than humanity. We are embedded in life, we are surrounded and immersed in life in millions of ways. It is the most obvious and yet most ignored aspect of our being, and in our ignorance, we fail to see that we are connected, united, linked to so much more beyond ourselves. And that “connection” holds the key to our very nature.

Yet, we find ourselves as human beings assaulting and killing life in all its forms—species are becoming extinct, bio-diversity is declining, global warming is occurring, and there is a depletion of our water, energy, and agricultural resources, and wars and conflict are endemic. I would like to suggest that a solution to many of the challenges we face may be to move beyond our conventional identifications with self, culture, nation, and even humanity, to an identification with life—*Lifeism*.

Dependent Origination (Engi)

Each time we as human beings assert our identity, we are challenged to understand the essential principle of separation and connection. Each time we state: “I am,” in whatever setting we may be in, we affirm our existence, create meaning, establish connection and position, and empower our self and others. But unless we learn that “I” is never separate from all else, we run the risk of the “I” in our identity becoming a travesty with regard to what is possible and what is necessary. When we separate the “I” from all else, we engage in an affront to the most important cosmic principle revealed across time—we are part of something more than ourselves and if we reject or ignore this essential truth, we face the risks of isolation, disharmony, and conflict. Identity, then, in all its forms—personal and collective—is, ultimately, in my opinion, the pursuit of meaning and purpose, and is best found in those moments of conscious awareness that recognize that separation and unity can never be thought of apart from one another. This is a fundamental tenet of Buddhism. Daisaku Ikeda (2010), leader of a secular Buddhist organization, stated:

The Buddhist principle of dependent origination (Jpn. *Engi*) reflects a cosmology in which all human and natural phenomena come into existence within a matrix of inter-relatedness. Thus we are urged to respect the uniqueness of each existence, which supports and nourishes all within the larger, living whole. What distinguishes the Buddhist view of interdependence is that it is based on a direct, intuitive apprehension of the cosmic life immanent in all phenomena (Ikeda, 2010: 235-236, in *A New Humanism*).

When we separate the “I” from all else, we engage in a denial of the most important cosmic principle revealed across time—we are part of something so much more than ourselves. If we reject or ignore this essential truth, we encourage ignorance, confusion, and conflict. Identity, then, in all its forms—personal and other, self and collective—is, ultimately, in my opinion, the pursuit of meaning and purpose. It is best found in those moments of conscious awareness that recognize and experience the fundamental truth that separation and unity can never be thought of as existing apart from one another. Everything exists in a complex natural ecology of interdependency, reciprocity, and interaction in which parts are never separate from the whole, although it may sometimes seem so because of our limited understanding in which we too often extract or withdraw things from the contexts in which they are embedded (e.g., reductionism).

The inclination to separate and to assign “reality” to things apart from their larger context, is present in Western thought and ways of knowing. Too a far greater extent, it seems to me, Eastern thought and ways of knowing, have often sought to recover context, and to place things within their larger context. While this distinction excessively simplifies differences, it is useful as a starting point for grasping our diverse world-views, especially as they implicate the topics of humanity and life.

It is also here that the very principles of separation and unity—of the cosmic principles of “fission” and “fusion”—become apparent, and reveal an awe-inspiring and reverential statement about the nature of *life* and the cosmos itself. Fission and fusion are, after all, the very principles by which the cosmos appears to have originated, and continues to exist. The idea is so profound that it taxes our comprehension because of limitations in our logic, language, and learning. Can it be that in our quest for meaning and purpose we have forgotten about the basic principles of fission and fusion that are present in our everyday lives in so many ways.

“I Am, What Am”

The story of Moses (1400-1300 BCE) has been told for all through the ages for more than 3500 years (Exodus 3:13-14). Moses, a fallen prince of Egypt who actually was born an Israelite, encounters God on the mountain of Horeb in the Midian Desert of the Sinai Peninsula. There, in the form of a burning bush, that does not burn, it is said that God speaks to Moses anointing him to go forward to free the Israelites from the bondage of slavery. But Moses, knowing the might of Egypt and the possible disbelief of his own people, is hesitant, and he asks God to identify himself. It is said that

Moses then asked: “If they should say to me: “What is his name? What should I say to them?” It is written that in reply, God said: “I am what am.”¹

There are, of course, many different descriptions and interpretations of this fateful event for Jewish history and culture—and subsequently for Christian theologies—and so we must be careful about assuming we know exactly what occurred—if it occurred at all. After all, who was there? Who knows what intervening scribes may have written? Who knows how much largesse has been taken in discussing this “event?” For me, however, I find the words considered by many to have been spoken a fascinating *entre* point for some of my own thoughts. The words, “I Am, What Am,” resonate with the idea of the unity of all things, at a time in our world in which so much about us (nature, nations, cultures, lives) appears to be fractionating or separating.

Now, permit me to wonder; what if the words were assigned a different meaning from what I am proposing regarding the unity of all things? It is possible that the idea of “unity,” which may have been intended in the Mount Horeb encounter, was somehow lost in the course of human reflection, understanding, interpretation, and documentation. For Moses, and for generations of Jews that followed, the words “I Am, What Am” may have come to mean “unity” in the sense of *Monotheism—One God*, but not necessarily “unity” in the more cosmological or Buddhist sense of the “unity.” For example, in Nichiren Buddhism, “unity” refers to a the “Mystic Law” in which our lives and the universe are one. This is something that can be apprehended or experienced by chanting “*Nam-Myoho-Renge-Kyo*, which translates as “All praise to the lotus (“*rengé*”) sutra (teaching). The lotus flower blooms and seeds simultaneously yielding a wonderful metaphor for the principle of constant cause and effect in life that is present in the universe.

Back to Moses, the “burning bush,” and *Monotheism* for a moment. *Monotheism* does suggest “unity” in a different way. It certainly suggests an obvious respect and reverence for God. Indeed, the reverence for this view

¹ The personal latitudes of translators and scribes has led to many different versions being posited about what may have occurred, and what may have been said on Mount Horeb including: “I am who I am;” “I am what I am;” “I will be what I will be;” “I shall be that I shall be;” “I am what is;” “I am that I am;” “I am he who is.” Yet, through all of these phrases, there is an undeniable theme of an “enduring presence” and an “enduring context” throughout time. These stem from the Hebrew conception of Monotheism—that God exists within each and everyone of us, and also by himself—an uncreated Creator who does not depend on anything or anyone and who is all things. From this comes the phrase I prefer, “I am what am.” This, in my opinion, is very provocative idea that has implications for identity and also for identity with life.

even resulted in reluctance among some Jewish religious sub-groups to spell out and write the word G _ d. But, here I must ask, was the idea of “unity” lost? Were the ideas of harmony and cause-effect lost? Was the idea of nurturing all about us—human and environmental—lost amidst an eagerness to be subservient to the idea of one, all powerful, all knowing god? While we beat our chests, and prostrate ourselves, and while we cry in prayer and anguish before this one god, have we failed to grasp another possible meaning in the words “*I Am, What Am,*” and in doing so denied ourselves as human beings the profound insight into the nature of reality. “We are one with the universe.” We are one with all life.

“*I Am, What Am!*” These are the words before us, then—eloquent in their simplicity, profound in their consequence, mystical in their appeal—separation and connection, isolation and relation, and independence and dependence, are one—“*I Am, What Am.*” I wish to honor these words, and it is this intent that has guided me toward the concept of *Lifeism*. We are, what is—we are the stuff of stars. The principles of fission and fusion—as represented in the dynamics of separation and connection—are in my opinion, the fundamental nature of identity formation and negotiation. And nowhere, is this principle more apparent and more important than in understanding the force of *life* itself.

We Are Alive: We are Life

“We are alive.” We are part of *life*, the very force that animates the universe and that is present in all things we call *living*. We are surrounded and embedded in *life* in a myriad of forms. This is the most important and essential truth. We are alive—we are part of *life!* By accepting this premise, and by making it the core of our identity as individuals and groups, we can affirm a truth so obvious and so critical to our sense of well being that it can be the anchor for all of our personal, collective, and national identities. It can move us beyond the borders of these identities that so often keep us prisoner to limited beliefs and behaviors. With this affirmation and acceptance, we can build a foundation for connection to all forms of *life*. We can move beyond the struggles for identity at individual, cultural, and national levels, in favor of the ultimate identity—*life* and the ecologies that nurture and sustain it. And with this identification, we can also move beyond humanism—a noble belief itself—to a new philosophy, and a new set of beliefs and practices that considers humanity as only one reflection of life. As we wantonly engage in killing, we must consider what we are doing. Nonkilling is a path toward respecting life in its entire myriad of forms and forces.

A Questionable Mandate from God

As we look back on history, especially the historical roots of different belief and religious systems, we find early statements that seek to position humankind—mankind—in a special position of existence, identity, and being, that separates him from all other forms of life and physical reality. In my opinion, religious dogma has positioned mankind in a dominate position. Within the earliest words of the Judeo-Christian book of *Genesis 1*, it is written that in verses 26-28, God states:

God said: “Let us make man in our image, after our likeness: let them have dominion over the fish of the sea, over the fowl of the air, and over cattle, and over the earth, and every creeping thing that creepeth upon the earth.” So God created man in his own image, in the image of God created him; male and female created them. And God blessed them, and God said unto them, “Be fruitful, and multiply, and replenish the earth, and subdue it: and have dominion over the fish of the sea, and over the fowl and of the air, and over everything that moveth upon the earth” (Book of Genesis 1, Verses 26-28)

In these words, we see clearly, a divine mandate—a divine authorization—for humanity to separate itself from other forms of life, and, interestingly, to have dominion over them. Certainly, within the context of our contemporary national and global situations, the wisdom of God’s decision must be questioned since it is obvious that under his authorization, humankind has produced widespread destruction and desecration of the environment, extinction and depletion of countless life forms, and human population of such size and consequence that catastrophe appears imminent. Can this be what God mandated and encouraged. I think not!

Clearly, any mandates from God written in the Torah/Old Testament have been irresponsibly accepted and implemented by mankind. Mankind’s dominion has led to abuses of unimaginable consequence for humankind and for other forms of life. And there is certainly evidence that the unbridled “reproduction” of the human species, has come at the cost of destroying himself, and other forms of life. At the risk of sounding cynical, it may be that God was tired on the seventh and last day of Biblical creation—be that Saturday or Sunday—and not fully aware of the interpretation and consequences of his words. Or it may be that human scribes over the centuries have used their position of authority to propose views that were not intended by God.

Our human capacities for consciousness of self, thought, reflection, analysis, and choice—while implying a special capacity and privileged position for

humankind (something that is, in fact, now subject to growing debate as the inherent capabilities of plants and animals are reconsidered, and humankind's capabilities are considered more modestly)—have failed to respond with the wisdom necessary to carry us from the brink of destruction that we have so recklessly pursued. We have only to look about us at the destruction we are sowing and reaping. Buoyed by the views of human beings as having a special nature and responsibility the human species has made unbelievable achievements in every realm. We have, as human beings, pondered are own nature, reflected upon it, sought to understand it, and to elevate it to the very limits of its possibility. We have pursued domination in every realm. We have positioned human beings slightly below God, or perhaps, next to him/her at most.

It is important to recognize that assigning humans a dominant role in the web of life can only be just if humans accept the responsibilities, obligations, and duties to look after life in all of its forms and manifestations. Trimarco (2011) has pointed out that we take for granted that humans have rights and that corporations have rights, but what about the rights of animals and nature. He points out that a number of groups are now filing lawsuits on behalf of natural resources and complex ecosystems that are under pressures of extinction. The issues are complex, but it serves the purpose of pointing out that there are rights associated with different life forms and manifestations.

All of this, in my opinion, is understandable in so many ways. Yet, by its very nature, the divine authorization to dominate has served also to isolate humanity from life and its myriad of manifestations. We have evolved ideas and concepts like humanism, humanitarian, and humanities, all either serving the potential purposes of humankind, or in some way, continuing to distinguish or separate it. We have, ultimately, pursued our identity within the human creations of various groups, societies, or nations. I believe this must change for the survival of life. I recommend:

1. Accept the philosophy of cosmic unity or oneness
2. Accept the cosmic principles of “fission” and “fusion”
3. Choose peace over violence, conflict, and war
4. Choose activism over passivity (Letters, donations, voting)
5. Choose voice over silence (nonviolent protests)
6. Choose service over selfishness (volunteerism)
7. Choose cooperation over competition
8. Choose education and learning over ignorance
9. Choose courage over fear and comfort
10. Choose justice over injustice

11. Unite your personal, professional, and civic lives
12. Support nonkilling: “Assert the right not to be killed, and take responsibility not to kill others” (see Paige, 2002, 2009)
13. Support the Universal Declaration of Human Rights
14. Support Nobel Prize Laureate Charter for a World Without Violence: “we call upon all to work toward a just, killing-free world in which everyone has the right not to be killed and the responsibility not to kill others” (Noble Prize Laureates Charter, 2007)
15. Choose life—choose *Lifeism*.

Identifying with Life: Lifeism

Identification with *life*—*lifeism*—is our most essential and most authentic identity. This identity with life should, in my opinion, be placed above personal, cultural, and national identities. It is the most important because it implicates all other identities in a far more meaningful way. If we accept the truth that we are part of life, there emerges a new sense of connection and harmony with the world about us. We experience the *life* affirming impulses of evolving, developing, and becoming. There emerges a sense of humility and wisdom that offers insights into unforgivable carelessness and disdain we have demonstrated for *life* in all its forms—how much we have done to destroy *life* and, in the process, perhaps to destroy ourselves.

Lifeism is spirituality—that transcendent sense of awe, reverence, and connection in which we are moved beyond ourselves, and beyond time and place to new levels of consciousness. Spirituality moves us, as individuals and groups, beyond our past to the richness of the immediacy of the moment. And with this comes an experience of attachment and belonging to something much larger than our individual or collective experiential levels. We are part of *life*, and that means we have ties to all forms of *life* on Earth and to the mysteries of the cosmos itself (Marsella, 2007, 2008).

Clearly, at no time in human history have we been at such a point of assaulting all forms of *life* about us. We are destroying the complex ecology that generates, sustains, and promotes *life* in its many forces. We are destroying more than ourselves as humans, we are destroying the very broth of *life* from which we cannot be separated if we are to survive. We—as humans—possessed of that most wonderful and highly evolved form of being—consciousness—have become the destroyer of *life*. We are—in a microcosmic sense—acting like a cosmic black hole grasping and abusing all

about us in a frenzy of waste, pollution, contamination, degradation, and destruction. We offend and insult *life*. We seem to have no identification with *life* itself—the very force that animates our lives and the world about us. And, unfortunately, we seem to be immune and in denial to the consequences of this essential fact.

Separation and Connection: Fulfilling Potential by Becoming

Life is about energy, its transformation, and its replication. It is about using our personal energy to become—to fulfill our seemingly endless potential to become all that we are capable of being via the seed of life that we bear within us and its relationship to the opportunities and challenges of the milieu in which we exist. This is the ecology of our existence. I have found that I feel most alive in the fateful moments in which I am acutely aware and conscious of myself as both a separate being and also as a being that is part of something more—not only a family, or society, but the very cosmos itself. And when I experience one of those rare, but inevitable moments, I am filled with life—an *élan vital*—a special vibrancy that vibrates in harmony with the world about me. I am at this point in existence, caught in a stream, a simultaneous wave of “fission” and “fusion” that is filled with insight and awareness of a different magnitude and acuity. Life abides and abounds! It is from this that a belief in *Lifeism* emerges.

There are so many terms across the world that embody the essence of *lifeism*. For example, there is the South African term “*Ubuntu*,” which means “A quality of humaneness, embodying the supremacy of compassion and the rejection of anger, resentment, and envy.” *Ubuntu* combines ideas of remorse and apology with forgiveness and is at the heart of the truth and reconciliation movement. And there is also the Sanskrit term, “*Ahimsa*,” meaning “The quality of humanness implying the absence of “*himsa*” or violence that allows one to resist injustice without fear on the one hand or hatred on the other.” There is also the Native Hawaiian term, “*Aloha*,” which is difficult to translate, but essentially refers to love and the intent to establish a spiritual connection. And lastly, of course, there is the term “*Satyagraha*,” meaning “nonviolence in being and practice”. This is at the heart of Gandhi’s mission of “nonviolence” and the more recent nonkilling movement of professor Glenn Paige. And we must not forget the Japanese word, “*Engi*,” that refers to the unity and connection among all things. To these we can add “*Agape*,” the Greek term meaning “an unconditional altruistic love for humanity”, that is considered to be at the heart of Christianity ... when not forgotten (Marsella, 2006).

Lifeism, as a belief, also does something more for us. Within its assumptions and advocacies, the omnipresent cycle of *life* and *death* become more obvious to us. *Lifeism* encourages us to encounter and to reflect upon death, and to understand its inseparable relation to life. As we behold *life* in all of its forms, as we witness its blossoming and its passing, we become acutely aware of the inevitable cycle of *life* and *death*, especially the fact that they are one. To understand and to accept the mystery that *life* and *death* are one can only enrich our life, and can only promote a greater sense of responsibility to promote *life*.

In our global era, nothing can be more important for *life* on Earth at this moment than this simple yet profound truth. A meaningful identity for a meaningful life must embrace an identification with *life*. "I am, what am!" "We are, what are!" "I am the stuff of stars!" "We are the stuff of stars!" "We are part of the very force that animates the universe!" It is essential to identify with "*life*," and to grasp the responsibilities, obligations, and consequences this imposes upon us. Let us move beyond defining ourselves in more limited terms as humans or as members of certain nations or ethnic groups. Let us acknowledge, recognize, embrace, protect, and preserve *life* around us—*Lifeism*! Let us support nonkilling. Let us respond to *life* about us with respect, awe, and reverence. Let us embrace the fact that I/we, life, and the universe are one!

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Conclusions



Conclusions

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This book on *Nonkilling Psychology* demonstrates the rich diversity of research approaches developed so far within the field of psychology. In this collection of essays, one moves from biomedical aspects to moral dimensions, through various renditions of social psychology. What brings a man to kill? Is a nonkilling society possible? Answers have been attempted, unanswered questions have been raised, and unexplored issues wait for further investigation. I am attempting the difficult task of writing a conclusion, while pointing out perceived needs for a better understanding.

Neurobiological and Evolutionary Perspectives

Animal and human research complementing each other (p. 18) is the norm in biomedical sciences. Within the domain of behavioural sciences, however, caution is advisable, especially when dealing with social behaviour and even more in the case of aggression, violence and intraspecific killing, the latter being the sad speciality of human beings (p. 38, point 2). We learn much about the functional pathways of aggression from Bedrosian and Nelson (pp. 18-35), who stress similarities between animal and human models (p. 20). Of course their functional connectivity is similar; both animals and *Homo sapiens* have been naturally selected for effective nutritional aggression, that is, interspecific killing. Using this natural functional potentiality to wound and kill, instead, members of our own species is a recent, anti-evolutionary and purely cultural development.¹

¹ *Homo sapiens* emerged in East Africa about 150,000 years ago. Its migrations out of Africa (about 80,000 years later) corresponded to a cultural jump forward fuelled by higher levels of curiosity and creativity. Palaeolithic rock art in five continents represents the documented history of pre-agricultural humans. Importantly, evidence of violence and war is very scanty in rock art, just like violence is almost absent in contem-

The use of more sophisticated terminology would avoid misunderstandings. We need in fact a special term for intraspecific killing. "Violence" would do the job, but it should not be used as a synonym of aggression, or simply for quantitative differences (pp. 18-19); it would therefore refer almost exclusively to post-agricultural humans. Such qualitative differentiation of aggression and violence would also facilitate the investigation of causes. For example, the popular idea that violent behaviour results from the collaboration of genes and culture (p. 25) should be questioned on the basis of the known impossibility of adding apples and pears, as genetic information and cultural transfer rely on very different mechanisms of inheritance. Again, an improved definition of the term "predisposition" (p. 25) would also help in avoiding misunderstandings.²

Finally, the correlation between observed behaviours and levels of specific brain molecules in humans (pp. 22-23) should be carefully interpreted, due to possible confusions between cause and effect. For example, is the increase in circulating testosterone causing aggression or is successful aggressive behaviour causing increase in testosterone? Luckily we have animal experimentation and pharmacology (p. 24) to help us in this choice, always keeping in mind that hormones and neurotransmitter precursors do not carry themselves information about specific behaviour; they only activate (arouse) behavioural models already acquired through the construction of specific association pathways (the true information) under the guide of postnatal experience.³

porary hunter-gathering cultures who survived to genocide and forced acculturation (Evans Pim, Ed., 2009: 95-124; Evans Pim, Ed., 2010: 83-98). Abundant evidence of violence and war appeared in the art of the large Late Neolithic settlements of the Middle East about 7,000 years ago (this is relatively recent in terms of human history).

² A genetic predisposition to a certain behavioural trait does not carry specific behavioural information. It only determines the amount or intensity of postnatal stimulation from social models necessary for cultural transfer to occur. The specific behavioural information is in the social models offered by a particular culture. A role of genetic information in human social behaviour can be accepted by developmental neurobiologists only in these terms, not in those suggested by evolutionary psychologists (qualitatively similar collaboration between genes and environment). For references, see note (1).

³ The explanation offered about the role of genetic information in human social behaviour (note 2) is similar to that concerning hormones. In both cases the molecules involved do not carry specific behavioural information. This real information is specified by neuronal connections, which, in turn, have been defined by specific postnatal social experience. The great variety of behavioural solutions developed to deal with the same situation in the numerous world cultures of the same species *H. sapiens* intuitively denies the genetic origin of social behaviour.

The other papers of the first part shift the reader's attention towards the field of cognitive social neuropsychology (p. 67), with an effective criticism by Miklikowska and Fry (pp. 37-63) of the popular belief that "killers-have-more-kids". This gives us the first taste of a general problem affecting the field of studies in violence and nonviolence. Scientific knowledge seems to have no or little effect on folk legends, when these satisfy people's desire of being relieved from personal responsibilities and governments' need of not disturbing the electorate with difficult social changes. Establishing a nonkilling society will involve dismantling many well-rooted myths.

One of these old legends is that human evolution proceeded through competition and violence, while modern science is proving that, on the contrary, we survived by cooperating with each other. Therefore Kool and Agrawal (pp. 65-94) deal with positive psychology and reported about the role of oxytocin, a hormone and neurotransmitter related to female reproduction and lactation, but also associated with empathy and altruism. Unlike the impression offered by the media, much more people are engaged in altruistic and cooperative behaviour than in criminal activities (p. 70). The suggestion of training people to be more empathetic (p. 80), sounds correct, but it should actually be stated differently: children (specially boys) should not be trained to become violent and adult should be made aware of the profound psychological damage caused by spending hours with passive entertainments based on violence and social negativity. The Gandhian teaching about rebelling nonviolently against oppression should therefore be applied today to defend ourselves from the commercial-media relentless delivery of violence to everybody.

Likewise, Richard Dawkins' well-advertised association between genes and selfishness (p. 87) has reinforced the mother of all legends that humans are competitive and violent by nature, an idea that is dismantled by most authors of this book. In fact Ardila (pp. 95-107) has framed the interaction between the innate and the learned quite correctly (p. 97). In spite of the positions taken by evolutionary psychology, the social behaviour of humans is totally the product of the culture in which they live (p. 98), save the simply quantitative role of genetic predispositions, as discussed in note 2.

Causes and Consequences of Killing

If violence had been naturally selected during the emergence of *Homo sapiens*, killing other human beings would contribute to our wellbeing and soldiers would enjoy the best levels of mental health. Not so, demonstrates MacNair (pp. 111-131) with a rich documentation of post-traumatic stress

disorders and nightmares among veterans. As a matter of fact, systematic killing leads to addiction (combat high), just like injecting morphine, and likewise it renders soldiers oblivious to danger (p. 123), a situation that surely does not worry high commanders. Importantly, young men must undergo hard training before going to a combat zone and the first intervention aims at their depersonalisation (often through humiliation) as an introduction to obedience. If we were naturally violent, how come we need to be brain washed to kill and after the kill we feel sick?

Interestingly, dehumanisation is also the strategy used by political leaders to “create” an enemy (Hall and Pilisuk, p. 152), a necessary prerequisite to justify involvement in war and obtain public support out of fear (Salzman, p. 134). The same three authors have presented a fair analysis of cultural changes that contrast or facilitate the emergence of a future nonkilling society (pp. pp. 141-154). The trouble with this type of exercise, common to most socio-political studies, is epitomised in phrases such as “September 11th reminded us all of the precariousness of our existence” (p. 142). Who are “us”? Does this observation apply also to people in Namibia or Naples or Nepal? Are we talking about human beings in general? A quick check tells us that “us” often means USA people or, at best, Anglo-Saxon middle-class people, those who currently dominate academic studies. Were we at the time of Socrates, it would mean people of Athens.

For a more interesting approach, we must wait for multidisciplinary scholars who are not afraid of discussing about human nature, not just mention it (p. 152) as if a consensus existed on this topic. Structural violence receives only a brief mention (p. 162), without recognising its fundamental role as the mother of all types of violence, while remaining the least studied one.⁴ The discussion about alternative ways to resolve conflicts (p. 165) ignores, as usual in current psychological sciences, that conflicts should be prevented, not just managed or resolved.

⁴ The original definition of structural violence (Galtung, 1969) has been modified as: “All those ideas and institutions that prevent children, adolescents and adults from expressing their human potentialities”. From such simple but powerful premises the Italian association Neotopia (www.neotopia.it) is engaged in a number of projects destined to promote a slow, nonviolent transformation of communities. The main project is a Master in Applied Nonviolence offered in collaboration with the University of Bergamo.

Toward a nonkilling world

The “focus on patriarchal military phallocracy” (Borkovich-Anderson, p. 171) has relegated to second stage women and children, while they are the main victims of modern warfare with consequences of trauma that run through several generations. Each culture has its own ways of coping with severe trauma and trying to gain social reconstruction (e.g. *kolo* dance and food in Bosnia), which confirms the need to avoid generalisations after analysing only dominant cultures, as mentioned above. The reference to Marija Gimbuta’s ideas about the nonviolent character of early Neolithic cultures in Southern Europe (p. 175) seems appropriate to me, but the author’s enthusiasm for life experiences being able to change DNA is either wrong or somehow anticipating future discoveries in developmental biology. The initial premises of Zamperini *et al.* such as “Since the beginning of recorded history ... it seems that societies and their leaders need enemies” (p. 198 and later p. 200) are dangerous traps for superficial readers, who with selective quotations could wrongly assign those ideas to the authors. As a matter of fact, they deconstruct later in the text those premises as lacking empirical evidence (p. 203).

However dangerous their editorial strategy may seem, it has the advantage of alerting us to erroneous folk beliefs about the social psychology of killing other human beings. The most damaging ones are indeed those beginning with “Since recorded history ...”. The view of humanity as limited to the short period following the beginning of written records (about 5,000 years ago) falsifies the issue we are dealing with, because structural violence, direct violence, and war emerged (in that order) in large Late Neolithic human settlements about 7,000 years ago in the Middle East (see note 1).

Is structural violence really difficult to observe, as suggested by Mayton (p. 219)? If we keep equating it simply to social injustice, if peace scholars keep dedicating most of their research effort to war as if our daily life was nonviolent, of course structural violence will remain elusive. In reality detecting it and formulating nonviolent alternatives is quite easy, if we are serious about social promotion. (See Giorgi, 2007.) Interestingly, David Adams suggested, in my view correctly, that projects of nonviolent transformation would work only at the level of cities and local governments, but not at the national or global level (cited at p. 242). Ever since Williams James (1910), the psychology of pacifism and nonviolence has created a sizable literature (pp. 221-223), which is of course ignored by the media and a popular press fully engaged in violence and war stories.

De Rivera (p. 239-269) has the rare courage of dealing with the question of human nature and human identity (pp. 243-246). But he seems to fall into the usual traps of this topic by seeing our cultural component as an impediment, framing such complex multidisciplinary issue in simple political (conservative vs. liberal) and moral alternatives (aggressive impulses vs. basically good), then choosing a third way where everything goes and humans can be both bad and good, all of this ignoring research on human brain development and the anthropology of nonviolence (for references see note 1). De Rivera's section about theoretical splits hindering peace research (pp. 246-253) provides interesting food for thought and his suggestion of cultivating community life, as a way of attaining a culture of peace (p. 253), is the same supported by modern anthropology (note 1), but the author refers to "our view of human nature".

Framed within cosmic views and religion, the passionate call of Anthony Marsella (pp. 271-288) for respecting life cannot be faulted.

A Step Forward

All chapters of this diverse collection of contributions within the general field of psychology are, in their own way, interesting and informative. However, the need for a step forward transpires from this excellent editorial effort. Following the historical work *Nonkilling Global Political Science* by Glenn Paige (2002), the Centre for Global Nonkilling has drawn from international expertise and produced several disciplinary studies on a wide array of aspects and through an innovative nonkilling vision.

The Italian statesman Alcide de Gasperi once said "We can build our house only with the bricks we have". Well, the current academic and intellectual bricks are weak. Democratic countries cannot silence intellectuals the way authoritarian regimes do, but their uncomfortable souls can be weakened in many ways. Exaggerated specialisation, reduction of funds, and hard workload have clipped their wings and forced them to fly low.

Carrying the blinkers of disciplinary specialisation, having to prostitute themselves to private sponsors, having little time to satisfy curiosity and inventiveness have deprived academics of a broader view of issues, an understanding of the political implications of their work, and a flair for subversive knowledge; but, most of all, academics have been deprived of a capacity for multidisciplinary thinking. Multidisciplinary thinking must flourish within the individual; it is fertilised by disobedience to exaggerated specialisation, career ambitions and administrative directions; it cannot be substituted by working back-to-back with other specialised experts in a conference or for a book.

Perhaps the Centre for Global Nonkilling could produce short, up-to-date, self-learning tools for specialised scholars willing to acquire basic concepts of other disciplines that are relevant to promote a nonkilling community. There is a difference between the popularisation of knowledge for the untrained public and the remedial broadening of knowledge for scholars already trained to investigate but castrated by exaggerated specialisation. *Ad maiora*.

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