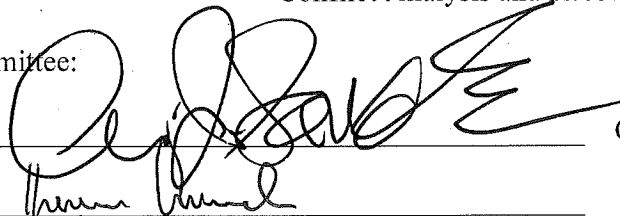


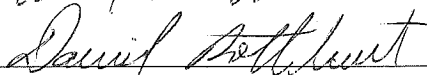
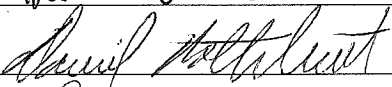
A DESCRIPTIVE STUDY OF THE INFLUENCE OF NATURE AND NURTURE ON
HUMAN CONFLICT

By Richard S Langille
A Thesis
Submitted to the
Graduate Faculty
of
George Mason University
in Partial Fulfillment of
The Requirements for the Degree
of
Master of Science
Conflict Analysis and Resolution

Committee:



Chair of Committee



Graduate Program Director



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Date: 14 MAY 2013

Spring Semester 2013
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A Thesis submitted in partial fulfillment of the requirements for the degree of Master of Science at George Mason University

by

Richard S Langille
Bachelor of Science
George Mason University, 1998

Director: Dennis Sandole, Professor
School for Conflict Analysis and Resolution

Spring Semester 2013
George Mason University
Fairfax, VA

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DEDICATION

This is dedicated to my loving wife Jessica and my children, Charles and Jane, in the hopes that they never see what I have seen.

ACKNOWLEDGEMENTS

While I had the support of many friends, relatives, and comrades, I would particularly like to thank Greg Bailey, John Goetchius, and Ed Lachance. They showed me my folly.

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ABSTRACT

A DESCRIPTIVE STUDY OF THE INFLUENCE OF NATURE AND NURTURE ON HUMAN CONFLICT

Richard S Langille, M.S.

George Mason University, 2013

Thesis Director: Dr. Dennis Sandole

This thesis presents the results of a descriptive study of the "nature-nurture" debate on the origins of human aggression, strong group affiliation, and rise of altruistic tendencies in human beings, particularly as it relates to collective violence. In the process of researching and writing this thesis, the author conducted literature reviews and conducted interviews with combat veterans. This thesis is slated to be a reference and resource to inform graduate students', researchers' and conflict interveners' appreciation for the potential predisposition toward, and viability of, combat held by parties in conflict.

WHY ARE YOU SMILING

In late 1992, I was an 81mm mortar platoon section leader in a battalion on air alert. Following many weeks of drills, we had a bona fide alert to go to Somalia. I was part of the advance party and would be one of the first to get to Mogadishu. When the long-standing advance party roster was altered to substitute the mortar platoon commander with the mortar platoon sergeant, our most technically proficient Marine with respect to the accurate delivery of indirect fire, we deduced that we'd be in combat upon arrival. Racing away from the formation, I tried to focus on making the mental lists of what had to be done, the timeline inflicted, and the myriad of things required to get my section in the air within the next six hours. Above all, I remember mulling over the prospect of going into combat within the next twenty-four hours. As I got to the door of my barracks one of my Marines interrupted my thoughts to ask, "Sergeant, why are you smiling?" Only then did I realize that I was grinning from ear-to-ear.

A decade later, March 18, 2003, I reported to Captain Salerno, USMC, as the new Staff Noncommissioned Officer in Charge of a team that would cross the line of departure into Iraq the next day. As a veteran of the 1991 Gulf War, this was my second trip to the region. As the Captain and I spoke, a distant rumbling grew near and loud. I recognized it from my last time in the Gulf.

"Ma'am, that's a rocket," I said as I strode out of the tent.

“Are you sure?” she asked exiting behind me.

Two gray-green Iraqi missiles flying level paths passed 300’ directly overhead. One fell out of the sky just beyond the camp with a great detonation. The other continued out of sight with an explosion shortly following.

Sirens went off. A patriot missile battery went active and began looking for targets. Bodies ran to and fro as the Capt and I observed from atop a sand berm.

“It’s on now,” I said as I surveyed the scene.

“What do mean, Staff Sergeant?”

“We just went kinetic, ma’am. It’s begun.”

“Staff Sergeant?”

“Yes, ma’am?”

“Why are you smiling?”

Indeed, why was I smiling? I had seen combat and the grief war brings. I know its awful sights, sounds and sensations. I have lost comrades. I have carried their bloody corpses from the field. I have been carried from it with wounds that pain me to this day. My combat experience haunts my dreams and has taken a quiet part of my mind. And yet, when arises the opportunity to demonstrate my devotion, to do my duty, so rises my spirit.

And, I am not alone in this. My experience is all too common among human beings through the ages. Literature is replete with accounts of the glory and horror that is war. Combatants, like me, often find themselves at odds with their undesirable personal experience and the self-destructive enticement to engage in the sanctioned violence of

combat. We pray it doesn't happen, but once it is joined, many of us pray, then, to be a part of it.

The causation of human violence is a topic long debated and not soon to be settled. For many years the principle arguments have approached the problem from two opposing principles. The proponents of theories as to why human beings appeared somewhat unique in the use of violence have often framed their theories based upon one of two ideas. Those ideas are that we are violent due to some aspect of civilization or that we are violent because of our biology. Thus we have heard for many years of the nature versus nurture debate. In this thesis my intention is to present the results of my study of the "nature-nurture" debate on the origins of human aggression particularly as it relates to collective violence, consulting not merely the literature on the subject but also my own combat experience and that of fellow veterans.

Studies of the anthropological record demonstrate that war is a common behavior in the human experience. It is telling that analysis of prehistoric remains provided not merely evidence of homicide, but indications of collective conflict accounting for sixty percent of human fatalities in some societies. Despite the relatively small chance for the preservation of human remains in the environment, only a fraction of a fraction, ossified remains dating from the prehistoric record indicate that at fifteen percent of humans die as a result of violence (Pinker, 2011, pp. 48-51). War is not a cultural artifact of a few societies. It is not an aberration of history or the consequence of our species' maturation. One wonders as to what force could create such internal conflict and for what purpose would arise a predisposition so inherently dangerous to its actors? When I returned home

wounded some weeks after my moment with the Captain, I was greeted by excited crowds and fanfare. We celebrate and revere warriors so universally that there is clearly some predisposition for it.

Combat, the individual expression of intergroup, lethal competition, the essential element of war, is a form of altruism. Social biologist E. O. Wilson describes altruism as being “based on a biological instinct for the common good of the tribe, put in place by group selection, wherein groups of altruists in prehistoric times prevailed over groups of individuals in selfish disarray” (Wilson, 2012, p. 251). Altruism has little place in nature, evolutionary forces generally punish altruists by reducing their ability to pass altruistic genes to subsequent generations. Said in another way, natural selection reduces the altruist’s individual fitness. However, altruism in humans is very common; indeed our civilization would not be possible without it. This posed a problem for evolutionary theory from the start. In the last decade, a theory of human social organization, eusociality, has come to address this problem. Along with multilevel natural selection, a complement of both group natural selection and individual natural selection, eusocial theory offers insight as to why human beings have and continue to consider sanctioned, intergroup violence, combat, as anything but a last resort.

For many years it was believed that humans were the only creatures who murdered and waged war upon each other. Certainly other creatures fought, but they did so, it was thought, either individually as males to gain access to reproductive rights or individually and collectively to acquire or defend resources. Humans were the only creatures that laid waste to their surroundings and each other for matters of honor, loyalty

or some other “ideal.” Humans were the only creatures known to wage wars of aggression to raise the national morale or prove their superiority. For centuries, the western world saw this as a byproduct of Man’s fall from grace.

Adam and Eve ate of the apple and gained knowledge. This knowledge came at a horrible price, the expulsion from paradise. Being left to his own devices, Man was forced to tame God’s world and created civilization and culture in order to satisfy human needs. Shortly after the fall, just one generation removed from God’s own hand, the human race suffered its first murder when Cain slew Able. Cain killed his brother over a matter of pride when his brother’s offering was accepted and his own was not. According to the bible the first murder occurs with the creation of human civilization after Man had fallen from grace.

As the bible was interpreted quite literally in western thought for millennia, many philosophers would conclude that Man’s flawed nature was responsible for his propensity for violence. It might therefore be argued that violence is inherent in the very biology that is Man. Due to his flawed nature Man is not a being at peace and therefore prone to use violence. However, being created in the likeness of a Creator and having at one point enjoyed a state of grace one could conclude that it is no coincidence that the first act of violence accompanied the first civilization. Perhaps violence is a product of civilization. In order to satisfy human needs, humans created a structure outside of nature and one of its unfortunate byproducts is homicide. Could violence be the price that we pay for living outside of a state of nature? Or, is there some predisposition for violence lurking within every human being?

I theorize that we human beings celebrate combatants, the agents of sanctioned, collective violence, because they offer sacrifice for the benefit of the group, tribe and nation. We value sacrifice, because we are predisposed to individual altruistic behaviors. Altruistic behaviors became prevalent as a consequence of gene-culture coevolution through multilevel evolutionary processes in which group selection became salient over individual selection in the presence of lethal, intergroup competition among eusocial bands of humans. Our cultural norms have historically reflected this valuing of sacrifice by training, encouraging, and rewarding the combatant; resulting in a complementary nature-nurture process that results in aggression toward the outgroup. In this thesis my intention is to present the results of my study of the "nature-nurture" debate on the origins of human aggression particularly as it relates to collective violence, consulting not merely the literature on the subject but also my own combat experience and that of fellow veterans.

This study is justified primarily on pragmatic grounds as the findings may inform policies on how to reduce the frequency and intensity of violence at all levels -- locally, nationally, and globally. The study is also justified on theoretical grounds as the findings may encourage the development of theory that explains how to reduce the frequency and intensity of violence, which may be a necessary condition for realizing the pragmatic significance of the study. I believe that sacrifice and altruistic behavior is more important to human decision making than perhaps recognized.

There are a seemingly endless number of books, papers, and article written about warfare. This descriptive study is intended to add further elements to an already complex

problem. My descriptive study relied primarily upon a literary review of theories and concepts along with interviews of combat veterans, as well as my own experience, to determine correlation with existing theories as to the influences of nature and nurture on collective violence among human beings.

Theoretical Setting

The theoretical setting includes concepts; hypotheses; models; and theories. Within this setting, concepts serve as basic building blocks of perception. Hypotheses predict relationships between concepts that are measurable and can be descriptive or causal. A descriptive hypothesis speculates a relationship between two variables without specifying the cause. Alternatively, causal hypotheses do specify cause. In order to demonstrate cause, independent and dependent variables must be measured. Models are descriptions of some subject matter that can be delimited via different formats. Theories provide a basis for description, explanation and prediction (Sandole, 2011, Chapter 30). This study relies upon the concepts of eusocialism and altruism, as well as the theories of violentization and social identity.

Interviews

Based upon my own personal emotional reaction to the prospect of physical combat, both collective and individual, I conducted interviews with combat veterans to determine if there was a positive opinion held for combat and for combatants. I expected not only some primal appeal for violence, but some indication that sacrifice was important. Additionally, I expected to find reinforcement from social constructs to support those opinions and beliefs.

I employed a “focused interview” format for the interviews. Also referred to as a *non-schedule-structure* interview, I selected this format as the subjects were known to satisfy the characteristics of this format. Specifically, they are known to be combat veterans. The questions relate to subject areas to guide the discussion. Most importantly, this study focused on the subjects’ experiences. Thus, the question format should permit for the flexibility in the relating of experience, while still providing enough structure to register patterns (Frankfort-Nachmias & Nachmias, 2000, p. 215). The questions were generally open-ended, as were their responses. The closed questions were intended to be followed up by more open-ended questions in order to provide the subjects to better provide their beliefs, opinions and attitudes. Additionally, I expected open-ended questions to provide opportunity to introduce ideas that I may have not properly considered.

The sample size was small, only twelve subjects, and limited to combat veterans. They were assured anonymity in their responses. The subjects range in age from mid-twenties to late-eighties. Their combat experience dates from the Second World War to the ongoing war in Afghanistan. Three of the interview subjects are World War II veterans. Two are veterans of the Vietnam War. One is a veteran of the 1991 Gulf War. Two are veterans of *Operation Iraqi Freedom*. Four are veterans of the ongoing war in Afghanistan, *Operation Enduring Freedom*. As fate would have it, all of them volunteered for service, none of them were conscripted. Five of the twelve joined the service during a period in which the United States was not engaged in a declared war or

ongoing engagement defined as a war. Seven joined the service during a period in which the United States was engaged in an ongoing conflict.

Of the twelve, five were commissioned officers and two of them had enlisted experience in addition to their commissioned service. Four of the twelve completed a career and earned a military retirement. Four of them served one enlistment and left the service. Four of them are currently serving. Two of those currently serving plan to complete a twenty-year career and two are indeterminate as to their career ambitions with respect to uniformed service.

The interview subjects represent all four armed services of the United States. Seven served in the U.S. Army. Two served in the U.S. Air Force. Two served in the U.S. Marine Corps. Two served in the U.S. Navy. If one is counting, that implies that one of them served in multiple services; which is correct. One of the subjects served as an enlisted Marine and currently serves as Naval Officer. Their combat experience occurred while two were assigned as intelligence personnel, five as infantrymen; two as pilots; one as a sniper; one as a medic; and one as a Special Forces sergeant.

Following biographical data, the interviews included the following:

- 1) Why did you join the service?
- 2) When you encounter service members in service uniform, do you look anything in particular?
- 3) Do certain awards individually or categorically stand out among others?
 - a. Potential follow-up: Much like all good souls are expected to become Saints and miracles simply confirm that. Should those in uniform be generally considered heroes, with decorations merely providing that confirmation?
- 4) What was your anticipation of combat?
- 5) How did the experience of combat compare to your anticipation?
- 6) How do you reflect on that experience now?
- 7) Were you scared in combat?

- a. After?
- b. Why do you think?
- 8) Are there merits to combat?
- 9) Do you believe that others perceive you differently due to your combat experience? (Would their view be different if you lacked combat experience?)
- 10) How do you perceive those people who fought alongside you? What is your opinion of them?
 - a. Have those views changed over time?
- 11) How do you perceive those who you fought against? What is your opinion of them?
 - a. Have those views changed over time?
- 12) What is your perception of the fallen?
 - a. Friendly
 - b. Enemy
 - c. Have these views changed over time?

Interview results will be discussed throughout the paper and presented in

Appendix A.

FINDINGS

Evolutionary Theory

Science currently estimates that life on Earth appeared some 3.7 billion years ago and has come to be; it has evolved into, what we see around us today by way of a slow, imperceptible process involving random and often minor changes in individuals giving them advantages in the environment or leading them to ruin. We are a product of such a process, the current expression of an animal line going back over millions of years, depending upon where one might, perhaps somewhat arbitrarily, draw division. While we have become self-aware and are somewhat unique among our fellow animals, we cannot divorce ourselves from the biological structures within which we are housed and through which we perceive the world, nor can we ignore the influence of these many millions of years of investment and shaping by natural forces. And, because of the importance of collective identity and social constructs, the level of biological organization at which natural selection works is critical (Wilson, 2012).

Natural Selection

By the mid-nineteenth century, it was becoming apparent to scientists that while animals generally fit neatly into their niches, there was ever greater indication that many animals that once walked the Earth had disappeared. The fossilized bones of animals unlike any known to science attested to it. The geographical distribution of animals and

their roles in separate ecological environments accompanied by incessant alterations among clearly related species was perplexing. Charles Darwin, an English naturalist, began working on a theory to explain his observations in the 1840's. He came to realize, along with his not nearly as famous fellow Englishman, Alfred Russel Wallace, "that these incessant alterations could explain why Earth has spawned so many varieties of life" (Walter, 2013, p. 2). With a couple of jointly presented papers in 1858, these men described the process by which animals might change over time. They theorized that minor, random variation within individuals caused them to be more or less successful in life. The more successful passed along their adaptations to offspring. Over time, these minor variations could become extreme. Darwin, in *On the Origin of Species*, published a year later, called this "descent by means of natural selection." Natural selection explains the process by which these compounding, random changes enable an organism to either be successful and propagate or fail in extinction.

Essentially, rather than individuals developing adaptation as a result of direct experience within the environment, natural selection expects that minor, random, variations of the animal, occurring at conception or during embryonic development, lead to adaptations. If these adaptations provide the individual with relative advantage, the individual will succeed in both survival and reproduction, during which, again, there is likelihood of minor variation of previous adaptations. Human beings observed this directly through the selective breeding of animals and plants for adaptations humans found desirable.

Enduring the environment is crucial, of course. It leads to adaptations like fangs, claws, flippers, fins and night vision. However, getting along in the great outdoors is not the only concern of an organism. Darwin, in *The Descent of Man*, recognized that every species must secure their survival and continuation in two ways: first, by being successful within its environment and, second, by ensuring they have offspring which reach maturity to repeat the process. Darwin and the scientists of his day did not know the mechanism by which these adaptations occur or their specific transmission within the procreative process, but did recognize the importance of genetic material being passed from parent to offspring. It is (almost) as equally important to mate as it is to survive in the environment. If successful adaptations, Darwin's "incessant alterations", do not get passed along to a subsequent generations, they are lost, unless they randomly arise again in another individual.

Darwin further correctly deduced that many adaptations do not serve any practical purpose with respect to the environment and, such as a peacock's plumage, may even serve to get in the way of survival, advertising presence to predators and consuming resources with no environmental advantage to the individual. Furthermore, these adaptations go beyond the physical. Certain behaviors, again principally by males, such as physical displays in the presence of a predator, do not provide advantage to the individual. However, those adaptations that do not enhance predation, deception, or evasion, are believed to be 'fitness indicators'. Fitness indicators are employed primarily by male animals to advertise to female animals as to the fabulous genes they carry. Fitness indicators also may serve to convince predators or fitness rivals to choose

another, easier, target, without challenge (Walter, 2013, p. 131). Accordingly, males are likely to invest a great deal in that advertising in order to build and promote such a reputation. In human environments where females were relatively scarce and anarchy is the norm, such as the nineteenth century American West, males are inclined to adopt aggressive, violent behaviors in order to attain the alpha status necessary to enable the wooing of women (Pinker, 2011, p. 105). The combined ability to survive in an environment and pass adaptation to a subsequent generation collectively constitutes an individual's 'fitness'.

It is through this process that life evolved from the very simple to the very complex. Natural selection is a dynamic process wherein predator and prey, competitors for resources, and residents of the planet wage an unceasing competition of adaptation. Driving this whole thing, we know today, is DNA. Found in every one of our cells, DNA defines the possible, probable and prescribed. It also predictably mutates creating ever new experiments in the natural laboratory.

And, it is through this process of mutating DNA, adaptation, environmental pressures, and the ever shifting definition of beauty, that human beings, a peculiarly complicated animal with big brains, gregarious natures and more self-aware than any other creature arrived (Walter, 2013). What is amazing to many modern humans, as the dominant and, perhaps, only self-aware life form on the planet, is that not only are we descended from a line of distinctly different humans, but that there is currently evidence for no less than twenty-seven different hominin species to have existed. Whereas we are the only human currently living, it was often the case that these other human species co-

existed with our ancestors, to include modern humans. As recently as 30,000 years ago, there may have been four other human lines living with our own, but, now they are gone. Why are we the only humans left standing?

Perhaps the other lines simply died out as a consequence of evolutionary pressures; they simply failed to adapt to the environment. Perhaps we met and interbred and are today a result of some amalgamation of species. There is some evidence to support that theory. Studies indicate that 2.5 percent of DNA in living Europeans and Asians is of Neanderthal origin. As much as 5 percent of certain Pacific Island populations' DNA may be Denisovan, another human species that went extinct 50,000 years ago (Zimmer, 2013). However, based upon fossilized remains, it is far more likely that *Homo sapiens* directly and lethally out-competed these other humans.

It was in the late twentieth century that humans discovered that we were not unique in our capacity for wanton violence, tool use or great intelligence. It has been determined that dolphins engage in killing for sport. Numerous accounts now testify to the killing of another animal not to teach, eat or defend. We also observed that our closest genetic relatives, the chimpanzees, do go to war with neighboring troops.

Chimpanzee Wars

In the modern era, boundary conflicts have been observed among chimpanzees. Male gangs of chimpanzees raid neighboring communities. Over a ten year period, John Mitani observed a 'war' among chimpanzees in Uganda's Kibale National Park. Every ten to fourteen days, patrols of as many as twenty males would penetrate enemy territory. If they encountered a larger group, they would flee. If they encountered a lone male or

significantly smaller group, the raiders would kill them. They did not attack females, but would kill any infants encountered. This conflict continued until the neighboring community no longer existed (Wilson, 2012, pp. 73-74).

Long term research in the Gombe National Park, Tanzania, made similar observations among chimpanzee groups. Over a seven year period Jane Goodall observed a group of chimpanzees fragment into two groups. The resulting two groups, 'Kasekela' and 'Kahama', separated first socially and then geographically. Kahama left the original territory to occupy adjacent space. There is no indication that resources were insufficient for either group. Nonetheless, over the next four years these groups fought until the Kahama males were gone and the females either killed or absorbed into the Kasekela group (Wrangham & Peterson, 1996, pp. 12-18).

Additionally, chimpanzee society is exceptionally violent on an interpersonal level within each group. Nonlethal intragroup violence occurs between one hundred and, potentially, one thousand times more often than in humans (Wilson, 2012, p. 73). These discoveries provide support to the proponents of nature as our source for violence. If indeed humans are another member of the great ape family and it is documented that great apes do indeed go to war, commit murder and engage in similarly baffling displays of violence as humans do, it leads one to conclude that we may indeed be reacting to some instinctual call to arms when we engage in violent behavior. However, such a conclusion may be hasty.

Left Bank Apes

It was not until 1928 that scientists recognized that the apes found on the left bank of the Zaire River were not chimpanzees, but a separate species now known as bonobos. Bonobos are, perhaps, as closely related to humans as chimpanzees. They live in a natural environment quite similar to those of chimpanzees, which due to the curve of the Zaire River places both species within the same latitudes of equatorial forest. Both chimpanzees and bonobos descended from a common ancestor between 1.5 and 3 million years ago (Wrangham, McGrew, & de Waal, 1994).

In addition to physical similarities, including sexual dimorphism, bonobo groups are very much like chimpanzee groups with respect to size and range. Bonobos also live within male kin groups and bonobo males defend their range from outgroup males. They move about their range to forage for food and control the distribution of that food according to an established dominance hierarchy and alliance, just as chimpanzees do. However, bonobo food sharing alliances exist among females, not males (Wrangham & Peterson, 1996, Chapter 10).

Biologist Frans de Waal studied bonobo zoo populations, documenting their “easy, pervasive sexuality” and propensity for amicable bonding, particularly among females, leading to the notion that bonobos are lusty, nonviolent apes (Quammen, 2013). While recent field studies have presented a more balanced view of bonobo life, relative to chimpanzees, bonobos are remarkably less violent. Bonobos are reputed to maintain a “three-fold path to peace” by reducing the level of violence: 1) between the sexes; 2) among males; and 3) between communities (Wrangham & Peterson, 1996, p. 204-5).

Within chimpanzee social structures, males establish dominance for themselves relative to females and then among themselves as males. The lowest male is dominant over the highest status female. Within bonobo society, the sexes are, essentially, co-dominant. The top male and female appear to be equal in rank, as are the bottom male and female, but all others in between are ranked as individuals among the whole, rather than segregated by sex. Additionally, bonobo females forge strong bonds and collectively support each other fiercely, particularly against aggressive males. In chimpanzee groups, a female failing to show deference to a male is likely to be assaulted. In bonobo groups, males assaulting females can expect to be attacked by a number of females. Bonobo females will not tolerate male-female aggression and there are no recorded cases of rape among bonobos. The bonobo male's inability to monopolize females reduces male violence (Wrangham & Peterson, 1996, p. 221).

It is well documented that bonobos in captivity employ sexual activity to make friends, relieve tension, and to reconcile aggression (de Waal, 1990). Additionally, bonobos appear to use sex for recreation and instructional play for juveniles. Most significant when contrasted with chimpanzees, sex is employed as a social lubricant that maintains amiable politics. Whereas chimpanzees resolve sexual issues through power; Bonobos resolve power issues through sex (Quammen, 2013). In the natural environment, bonobos appear to be less promiscuous than the captive populations observed by de Waal (1990). Gottfried Hohmann, of the Max Planck Institute for Evolutionary Anthropology, conducting research at a site called Lomako, noted the same diversity of sexual acts as de Waal, but Hohmann observed those sexual acts far less

frequently. Hohmann concludes that the captive setting amplifies bonobo sexuality, further noting that bonobo behavior in the wild must be different due to the needs foraging and natural competition (Quammen, 2013).

Female bonobos, like chimpanzees, leave their mothers and find new groups in adolescence. The young female approaches a new group by targeting an older female. The young female will seek and wait for a signal of willingness by the older female to become a companion. Once established, this bond will mature over a few weeks culminating with sexual activity between the two females. Once the younger female is accepted by a senior female, she has not only her sponsor's support, but becomes part of the whole female social support apparatus (de Waal, 1990).

Relationships among male bonobos are very similar to male chimpanzee relationships. They are similarly concerned with status and engage in similar activities among themselves to establish that status. However, bonobo males fight less often and less fiercely. They tend to display more rather than physically attack. Bonobo males don't form alliances as male chimpanzees do. Whereas, chimpanzee males will inflict and risk mortal wounds to become the alpha male, no such wounds have been observed among bonobos. There may be less reason for bonobo males to compete, in part because bonobo females may conceal ovulation, making it challenging for males to know when a female is fertile. It is, therefore, less important to frustrate other males from engaging in copulation (Wrangham & Peterson, 1996, pp. 211-2).

Chimpanzee males can identify females in estrus. Female chimpanzees are collaterally subject to aggressive competition among males and directly subject to

coercive pressure to mate, making sexual attractiveness a detriment. Bonobo females control their males and use sex to their advantage (*ibid.*, p. 213-4). Also, bonobo males are mamma's boys who rely upon female consent, if not active support.

Males tend to stay with their mothers for their entire lives. Males hold higher rank while their mothers are alive. It has been observed that some males, upon the death of their mother, will lose status. Similarly, a son can lose status if his mother should. This makes sense as bonobo mothers are part of the bonobo-girl-gang, of which there seems to be no male equivalent within bonobo society. Mothers will support their sons in challenging higher ranked males. Should the confrontation become violent, mothers will directly assist in a physical confrontation. Should the mother call for reinforcements, the senior male might find himself facing not only a male challenger and his mother, but the balance of a group's females as well (Wrangham & Peterson, 1996, Chapter10).

Research near Wamba in the Congo documented instances in which a bonobo alpha male named Nobita was challenged by another male in the group. Nobita's elderly mother charged in to assist her son. Despite the fact that Nobita was the largest male in this group, he still relied upon his mother's support to succeed. It is clear that adult males require female support to hold high status. Hohmann considers mother-son bonding as equally important to bonobo society as a genial sisterhood of female bonding. Life as a bonobo may be more stressful than it appears. Analysis of fecal and urine samples reveals high levels of cortisol, a stress-related hormone, in high-ranking bonobo males, correlating to the presence of estrous females. Apparently high-ranking bonobo males are compelled to balance displaying enough machismo to maintain status among males

and not so much machismo as to cost him opportunities to mate with imperious females (Quammen, 2013).

Bonobos are not known to raid neighboring territories. In fact, friendly encounters between groups involving the sharing of food and even copulation involving members of different groups has been observed in the natural setting. Where groups have been friendly, the females have initiated amicable meetings. Males from the different groups do not interact (Wrangham & Peterson, 1996, Chapter 10).

The forest on the left bank of the Zaire River is very much like that on the right bank. The biggest difference is the absence of gorillas on the left, the bonobo side. Chimpanzees cannot successfully compete with gorillas for food. Accordingly, gorillas eat what they care to eat, relative to chimpanzees. Gorillas prefer and consume fibrous foods such as young leaves and stems of herbs on the forest floor. These foods are common both geographically as well as temporally. On the right bank of the Zaire, gorillas consume and control these food resources forcing chimpanzees to rely upon more seasonal fruits. This food instability results in smaller, more dynamic chimpanzee groups, relative to bonobo groups. Bonobos, living on the left bank, do not have to compete with gorillas. Bonobo diets include both chimpanzee and gorilla foods, resulting in more consistent access to food, permitting larger, more stable groups and reducing tensions between and among groups (Wrangham & Peterson, 1996, Chapter 11).

Chimpanzee war parties rely upon local superiority for tactical success. It is achieved regularly as chimpanzees often forage alone. Because of the increased food density in bonobo ranges, the groups tend to forage together. Accordingly, even when

bonobo groups meet, they are often both of sufficient size to discourage any conflict (Wrangham & Peterson, 1996, Chapter 11).

Also, the constancy and stability of the group means that individuals typically have allies present for not only outgroup encounters, but also ingroup bullying. Thus, bonobos developed means other than violence, especially sociosexual behaviors, to manage conflict (Quammen, 2013). And just as Pinker (2011) argues that it was the presence of women in frontier society that tamed the American west, so it appears that bonobo society is tamed by the empowerment of females.

Human Needs

Among the basic human needs are: security, belonging, and esteem. It is because of our biology that we each possess an ego. Ego is the sense of self and really our sense, our perception, of the world. Each of us is forever doomed to view the world through our own unique and somewhat fixed lens. This perception is by its very nature very self-centered. A component of self-esteem, pride is that feeling of confidence in and desirability of oneself. It is a sense of dignity and a measure one's own worth. Pride, which is akin to what Gilligan (1997) refers to as self-love, is what truly defines an individual. It is how we see ourselves. The human ego requires a healthy sense of pride to function properly. Pride is the measure by which a human compares himself to others. If the individual has accomplishments or holds a position of high standing, that individual can be confident that he "measures up" to his peers. Accordingly, he deems himself to be adequate and of value. An individual accorded no dignity or self-respect, fails to function

as an equal within a society. A nation of individuals collectively feeling a lack of pride cannot function in a world of other nations.

Pride

Pride is a requirement of a biological system, but it is constructed and deconstructed through social action. The counter to pride is shame. Shame imposes the prospect that one is unimportant; that one will cease to exist. Individuals suffering shame are susceptible to violence. Violence can be a way to assert oneself (Garbarino, 1999, p. 132). A popular tattoo and saying among warriors is “death before dishonor.” Death is preferable to shame. As Gilligan (1997) observed of so many street toughs, human beings often find death of the body preferable to death of the soul (Gilligan, 1997, p. 48). Violence may be the dark side of higher awareness. Preservation of the self as measured from within, not in the face of physical danger, but in confronting a psychic threat to one’s own image may be viewed as reason enough to be violent.

That does not mean that humans are doomed to be violent without cause or restraint. It simply makes it possible. Ego is a byproduct of our physical brain. Pride is the measure by which the ego determines whether the individual has worth or is adequate. Any threat to that measure needs to be addressed and there are many means to do so. An individual can build pride and self-esteem starting as a child. During the first years of life a child forms its view of the self and the world at large. Garbarino (1999) stresses that by age eight many of these patterns are formed and deeply entrenched. One is able to build self-esteem and pride in one’s self by being the recipient of love and praise as a child. This early strengthening of the self has very long term effects. This

serves to create a reservoir of pride and allows for resilience when the child invariably fails at some task or is hurt by the perceived observations of others.

Contrarily, early experiences with shame can have long-lasting, deleterious effect. At a high school reunion, I was surprised by the number of my classmates who found it noteworthy that I could not be found in a cemetery or prison. Apparently, many had recognized tendencies in my teenage years for acting out violently. In fact, I was surprised by the number of my friends who purported to be scared of me. My mother divorced my very abusive father when I was two. She soon married a man who was also very heavy handed with the children, if not her. My biological father abandoned me completely after my sixth birthday. I was only eight when my stepfather died. I was left only with the reality that my own father thought me unworthy of his time. Shame was my salient sensation. Thereafter, my mother was our sole support. She worked tirelessly and was largely absent from my life. To say that I knew rage as a child is an understatement. Many years later, I recognize that I joined the United States Marine Corps, in part to validate myself; to reduce that shame. When I crossed the parade deck at Parris Island, it was not so much an accomplishment as a declaration, "I am." That that declaration came with it a requirement for a willingness for and proficiency in violence was not a problem.

It is crucial to note that it is the perception of the individual that is important. An individual's perceptions may not reflect what is actually communicated or intended. We often assume what another person in our presence is thinking or might be thinking and

conduct ourselves without need of further affirmation. Also, one need not directly ridicule another to threaten their pride.

If someone should espouse an idea contrary to that held by another individual, the second person may feel threatened. Should the competing idea be proven to have validity, it might therefore prove a deeply held conviction to be wrong and alter a worldview. This causes dissonance. When an individual experiences something other than that expected they can get frustrated and frustration is necessary for aggression. Again, that is not to say the frustration always leads to violence, it is simply an essential element. There are many ways in which to deal with frustration.

Individuals can deal with their own levels of frustration by removing themselves from the cause of their frustration, address the issue that is creating it, or suffer through it in pursuit of goals. If an individual cannot remove himself from the source of frustration they must address it or suffer it. Should the individual lack the verbal skills, social standing or access to resources requisite to reduce the level of frustration they will be forced to suffer through it for a time until it becomes unbearable. This period of time is dependent on the measure of self worth or pride the person has to begin with. The less pride, the shorter the time the individual is likely to tolerate the situation.

When a person commits a violent act they are often trying, whether consciously or not, to obtain justice. Violence is the result of great frustration coupled with a sense of helplessness. The individual may be envious of another or simply feel that everyone looks down on them, but it is a matter of dignity. Gilligan's (1997) studies led him to conclude that violent criminals are willing to commit the acts of which they are guilty in

order to right some wrong done to them, real or imagined. Take for instance the murder of a girl by “Ross L.” Ross justified the murder in his own mind because he felt that the way she was looking at him indicated that she thought him to be less than a man. He was feeling inadequate due to the fact that his car was not running and he lacked both the ability to fix it and the funds to get it fixed. His wounded pride exploded in a murderous rage (Gilligan, 1997, Chapter 3).

The trivial nature of the perceived slight, of which the girl may or may not have been aware, causes one to wonder if there is any rational explanation to Ross’ actions. Ross’ actions can be explained and understood. Ross reacted not just to this single incident, but to years of frustration. He and individuals like him endure the shortcomings of their lives and their own lack of self worth until something pushes them over the edge and they lash out.

Gilligan (1997) describes it as the proverbial straw that breaks the camel’s back. Once broken, though, the camel is out for the count. Men like Ross often survive the incidents of violence and commit more. I believe that each trivial slight might be more like the tossing of a lit match and additional powder into a room. Each instance of shame not only produces a match, but puts more gunpowder into the room. Over time the powder builds up and eventually a lit match will touch some of it off. One might see a brief flash or a great explosion, but there will be some sparks before the big blow.

In this way, even a small matter might result in a terrific the explosion. The individual likely recognizes the matter to be a small one and the very fact that it is of little concern reveals how little control the person has over his status and this reinforces the

feelings of inadequacy. When the individual feels that even the most trivial matters are of great importance because even they are beyond his control he is most likely to resort to violence. The individual has nothing to lose.

If the individual also feels that he is a victim in some way, then the likelihood of violence greatly increases. In explaining his “germ theory of violence” Gilligan (1997) identifies his three preconditions for violence as: first, the individual is ashamed of trivial matters; second, the individual feels he has no nonviolent means to diminish his shame; and third, the individual lacks the emotional capacities for feeling that would otherwise prohibit his actions. One can argue that the third condition applies not only to persons who, for whatever reason, lack some element of their psyche that causes them to feel empathy for their victims, but also if one is seeking vengeance or righting a wrong, then one can more easily justify the violence being applied.

Ultimately human institutions share the same quirks as the individuals themselves. Politics allows for and even demands responses that we as individuals might never undertake due to their repugnance or hazard. When a nation has limited resources to address its frustration and there are other nations about more prosperous this can lead to a national sense of relative deprivation and envy. Both of which diminish self-esteem. The source of the frustration may not even be the level of hardship to be endured, but that the experience is so different from that of other nations. Should there be reason, real or imagined, to see the cause of this frustration in another nation this can lead to aggression on a national scale.

Identity

As predicted by Korostelina (2007), my new identity as a Marine led to greater self-esteem as a result of becoming a member of an ingroup with a high social status. When I returned home from Parris Island in the uniform of a U.S. Marine, I was immediately admitted into the bar of the local Elks Lodge to be welcomed and toasted by the *other* men, of which I was now one. The Marine Corps allowed me to travel the world, which few in my family had done. As a combat veteran of the 1991 Gulf War, I garnered greater respect. As a corporal, I had taken charge of an infantry platoon and was subsequently meritoriously promoted to sergeant and decorated. This established that I had worth. It was following this deployment that I chose to walk a different path and even went so far as to change my name. I renounced my father and took my mother's family name. I would not have dared to ask my maternal grandparents for their permission until I had proven myself worthy.

It was with the change in identity that my disposition changed entirely. I was no longer an object of scorn, not even worthy of my own father's attentions. I became the proud son of a proud family. The new identity and the respect that it conferred was sufficient to raise my own self-esteem to a point that I no longer tried to disassemble bars on a regular basis. Furthermore, I now had reason to strive for un-thought of goals so as not to sully my new name.

I, of course, had always been a blood relative of my "new" clan, but now I was a member, name and all. I no longer felt as much the black sheep as I had growing up, nor did I feel the shame that I had previously. In place of a scalawag dad who had been

administratively discharged out of the U.S. Navy, my new chosen glory was the young paratrooper, whose name I shared, who dropped into Normandy on 6 June 1944. I recognize now that the only thing that changed was a label and my own perceptions, but it proved to me the validity and power of such things. Identity is socially constructed (Korostelina, 2007, p. 15).

Social Identity

Social identity is the feeling of belonging to a group. Humans have a universal tendency to form groups and favor the ingroup, Us. This implies, and there is evidence of, a biological influence. Research illustrates that people “grow hostile to any out-group encroaching upon the territory or resources of their ingroup” (Wilson, 2012, p. 60). This reaction can occur almost instantly. The amygdale, an ancient part of the brain, activates so quickly that “conscious centers of the brain were unaware of the response” (*ibid.*, 61). The variability of the target of this hostility is typically one of ethnicity, race, nationality, religion, or some other perceived point of departure; one that is socially constructed (Sandole, 2003). Accordingly, when context is added, higher learning centers are engaged and can silence input through the amygdale. The mystery is why would such a biological adaptation arise built upon a social construct? Social scientists have conducted many experiments over the years in which they arbitrarily divide people into groups. Consistently, people quickly discriminate in favor of the group to which they belong. A classic example is the experiment near Robber’s Cave, Oklahoma during the 1950s.

Psychologists invited, “twenty-two middle class, white, Protestant, well-adjusted, eleven-year-old boys” to summer camp (Wrangham & Peterson, 1996, p. 194). Once

there, they divided them into two groups. They made an effort to separate friends as much as possible. The two groups were kept separated during the first week. Within one week, two group cultures emerged. Within each culture, individuals amalgamated themselves into this new identity. During the second week, the groups were placed into competition against each other. Not only did the boys fiercely compete for their new groups within the contests devised, but they also engaged in increasingly aggressive acts toward the other group. Initially these acts were aimed at the other group's symbols, but individuals quickly became physically violent toward members of the respective outgroup (Wrangham & Peterson, 1996, p. 194-5).

Humans evolved in groups. Our cultures, societies and social constructs have evolved concomitant with the biological element. Just as apes live in groups today, so did our antecessors. It is natural for humans to form groups because that is what the great apes, the taxonomic family Hominidae, do. With the exception of orangutans, we form groups. In humans this has taken an extreme form of behavior referred to as eusociality.

Eusocial Theory

The term "Eusocial" was introduced in 1966 by Suzanne Batra, which she applied to invertebrates that exhibited: a reproductive division of labor (with or without sterile castes); overlapping generations co-existing within a social organization; and featured cooperative care of young. The definition of eusocial has been more recently expanded by E.O Wilson, Martin Nowak, and Corina Tarnita, along with other researchers to include human beings and describe the origin of human societies (Wilson, 2012, pp. 51-2).

Eusocial orders represent the highest level of social order. Originally developed to describe colonial insects, eusociality sought to explain the castes found within insect social orders. The theory has recently been expanded to include other organisms. Eusociality is achieved when multiple generations are organized within groups by means of an altruistic division of labor. It is very rare, being observed in only fifteen of 2600 taxonomic families of insects; observed three times in shrimp; twice in naked mole rats; and once in the line leading to modern humans (*ibid.*, p. 137).

E. O. Wilson (2012) theorizes that the stages of eusocial development are as follows: 1) the formation of groups; 2) occupation of a defensible nest; 3) appearance of mutations that favor persistence of the group; 4) emergence of traits creating castes; and 5) group-level selection creates a superorganism. He notes that only insects have developed to stages four and five. It is likely, for that reason, that eusocial behavior was not immediately applied to human social behavior. However, in developing his theory of eusociality, he came to recognize that human beings, along with several other species, exhibit traits, dare I say degrees, of eusociality. In his book, *The Social Conquest of the Earth*, Wilson argues that humans attained stage three of eusocial evolution.

There is some debate on the use of the term in describing human behaviors. Not only do insects take eusociality to an extreme with robotic workers, fixed castes and wildly varying body forms from the same genetic code, but the evolutionary process and social organization are also thought to be different. From an evolutionary perspective, eusocial insects, like ants, are not the result of group selection, but individual selection from queen to queen, with the subordinate castes being an extension of each queen's

phenotype. Ant colonies consist of two generations, a queen and her children. The fitness of the colony relies almost exclusively upon the fitness of the queen and her single mating. Competition between colonies is essentially competition between individuals. However, there are remarkable eloquent implications of convergent evolution with humans.

Group Saliency

Saliency is the most important component of identity. An individual can concurrently hold several identities, the most salient of which can be invoked at any particular time. Saliency can be situational or stable and often hierarchical. Levels of saliency are influenced by several factors. First, humans from childhood seek to understand the world. One of the ways in which the world is defined is through comparative analysis; what something is like and not like. In collectivist societies, which our antecedent hunter-gatherer forebears certainly were, social identity trumps individual identity and social identity is salient within the context of groups. Even within groups, “we-they” are more important than “you-me.” Finally, intergroup competition significantly strengthens the saliency of ingroup social identities (Korostelina, 2007, Chapter 4). Illustrative is the fact that most primitive tribes translated their name to mean ‘human’ or some variant thereof, thereby defining all others as just another animal (Grossman, 1996, p. 252).

As the group becomes tighter and identity more salient, individuals develop greater empathy for individuals of the ingroup, Us. Empathy is required to manage conflict among group members. Unfortunately, this empathy is not as readily extended to

individuals of an outgroup, Them. This places Them outside of an individual's moral circle. Once outside the moral circle, we are insensitive to negative experiences suffered by Them. Ingroups often dehumanize members of outgroups in order to facilitate the use of violence against them (Garbarino, 1999, p. 114). Even in vicious, prolonged conflicts there is a need to reduce empathy to others. Sgt Tania Chernova, a Soviet sniper and veteran of the Battle of Stalingrad, still referred to the Germans she killed as "broken sticks" twenty-five years after the battle (Craig, 1973, p. 397).

We need empathy in order to appreciate the sacrifice of an altruist. We share some level of group identity with our soldiers, perhaps in the form of national identity. Their assumption of risk and offer of sacrifice, their altruist behaviors, are valued by those who share a similar national identity. When Tunisian Mohamed Bouazizi immolated himself in 2010, few in Europe and the New World took notice as they did not share identity nor empathy. However, to those Arabs who identified themselves with him, his act was valued and ignited a wave of protest. Similarly, the altruistic sacrifices made by Mohandas Gandhi were valued by a greater diversity of people because Gandhi was able to identify as a human being, vice Hindu, Indian, or Asian. One wonders if Gandhi's campaigns would have been as influential if his non-violence had not been met with violence. His moral authority was increased by the perceived immoral reaction to altruistic sacrifice.

The way in which groups form likely contributes greatly to saliency. As the African jungles retreated 1.96-1.78 million years ago, hominins became stranded in the open savannas where food was spread out over larger areas and inhabited by a number of

predators. When gracile hominins became more isolated on the expanding savanna, their groups became tighter for both defense and securing resources. Humans established communal sites within which young could be cared for and to which hunters and foragers would return.

As it turns out, that was a defining moment for the future of humanity. Extracting nutrients from vegetable matter is expensive. As the climate changed and the jungles receded, fruit and other high pay-off foods proved harder to find. The gracile humans began to include more meat in their diet. Paleoanthropologists Leslie Aiello's and Patrick Wheeler's "Expensive Tissue Hypothesis" holds that a change to a diet with more meat shortened the gut and the excess energy could be devoted to brain building (Aiello and Wheeler 1995). The fossil record appears to support the idea that among the causes for rapid evolutionary expansion of brain size in hominids, was the change in diet to a greater reliance upon animal flesh as a principal source of protein. Wilson (2012) theorizes that hunting prey does not, of itself, explain why the human brain grew so dramatically in size. The real cause, he argues, is *how*, the prey were hunted. Complex hunting strategies challenged and expanded intellectual capabilities.

Defensible Nest

Wilson (2012, p.1 84) posits that "the causative agent of advanced social behavior is the advantage of a defensible nest." Defense of the nest is one of the key elements of eusocial organization, common to all eusocial creatures. Protecting the nest forces members to come together. Individuals may forage away from the nest, but must return

to it. The nest must be defended. Here again, in the presence of dangerous predators or adversaries, groups already formed are likely to grow tighter.

This goes beyond defense of territory. Humans and chimpanzees are intensely territorial. It is likely hardwired into our social systems. Territorial behavior evolved as a device to sequester the food supply. Our closest living primate relatives, chimpanzees and bonobos, “occupy and defend territory, but wander through them while searching for food. The same was probably also true for australopith and habiline ancestors of man” (Wilson, 2012, p. 42). Where they did not develop advanced social behavior, the cohesion forced by the concentration of groups within protected sites was a critical step in becoming what we are.

We Are Fetal Apes

About the same time that our ancestors were getting stranded on the open savanna, their brains underwent an expansion. This expansion in brain size provided some challenges. The upright gait adopted by gracile hominins narrowed the hips, which narrowed the birth canal. The gracile brain was proving too big to be born. Starting about 1.8-2 million years ago, we crossed a “cerebral Rubicon.” In a remarkable example of evolutionary plasticity, humans began to bring their children into the world early (Walter, 2013, Chapter 2).

Despite having less than 25% of our brain developed at birth, humans are born with a huge brain. Our brain is 1.33 times larger than infant apes at birth. In order to be born as physically mature as a newborn gorilla, humans would require twenty months

gestation. Relative to other primates, we are born both mentally and physically premature (Walter, 2013, Chapter 2).

Not only are humans born premature, we retain the features of fetal apes, a condition referred to as neoteny. Neoteny is the retention of juvenile features in the adult animal. That we have traits similar to fetal apes has been recognized. In *On the Problem of Anthropogenesis*, Louis Bolk argued that a surprisingly high number of human physical traits that are fetal conditions in apes, have become permanent in adult humans. Bolk describes “twenty-five specific fetal or juvenile features that disappear in apes as they grow to adulthood, but persist in humans right up to death” (*ibid.*). There is ongoing debate as to what the influence is of neotenous traits. Interesting, but by no means compelling, is the observation that small male orangutans, exhibiting neotenous traits, are responsible for a high incidence of rape among orangutans (Wrangham & Peterson, 1996, pp. 134-7).

Gracile hominins extended childhood, and some processes that were prenatal in our antecessors have become postnatal in us. Bringing a child into the world “younger” required more time and energy to be a parent. Relative to other animals, the cost in rearing mammals is extreme, and among mammals, the cost of rearing humans is extreme (Pinker, 2011, p. 416). The greater requirements of child rearing likely drove certain other trait changes in humans. Human females have hidden genitalia and don’t advertise estrus – differing from every other primate (Wilson, 2012, p. 253). In humans, bonded pairs engage in frequent intercourse. It is likely that both of these adaptations encourage

continued paternal presence and support in child rearing. The increasing costs of raising young also likely further tightened the groups of ancient *Homo* in order to be successful.

The enlargement of brains resulted in ever greater requirements to rear young. The group maintained its integrity through generations. These humans at campsites were forced to behave in ways not needed by wanderers. They were compelled to cooperate in ways great apes had not; some foraged and others hunted, some guarded the campsite and some raised young. In contrast, bonobos and chimpanzees, not considered to be eusocial, advertise the discovery of food by sounding off, but do not share the food they gather. Humans had to share food, both vegetable and animal, in ways that are acceptable to all members of the group. We adopted eusocial behaviors and our groups took on the semblance of an organism, permitting group selection to occur. An adaptation for altruistic behavior arose, perhaps randomly, and altruistic divisions of labor were created to guard the nest, care for young, hunt animals and forage for food.

This created an internal conflict with which we still deal today. We are both sinner and saint. We selfishly, but understandably, seek status and resources. The traits and behaviors favored by group selection are responsible for advanced social development and are culturally rewarded. We encourage sacrifice, cooperation and empathy within the group. It is what enabled our survival. Most importantly, we value the altruistic warrior.

EVOLUTIONARY ALTRUISM

In early January 1995, I was swimming at Electric Beach on the Waianae coast of Oahu, Hawaii. While in the surf, I noticed another swimmer with wide eyes and a look of panic quickly spreading across his face. In another moment the man was reduced to a gray shadow within a white froth of air and water. I knew that the prevalent factor in multiple-person drowning was a consequence of a single, second swimmer attempting to help another in distress. I possessed no life guard certification, nor could I expect any additional assistance. I did not know this man and didn't have reason to believe we were related socially or biologically. Yet, at risk to myself, I assisted him in moderate surf more than fifty meters from shore. Clearly the risk of death to me was not outweighed by any perceived gain to me. Why would I express an altruistic behavior for some stranger's benefit?

Darwin recognized that if intergroup conflict were frequent and lethal, the more altruistic groups, those groups entailing greater costs to the individual altruist, would be able to proliferate. In order to be successful in groups, organisms must exhibit some level of altruism. The theories of individual natural selection, selfish gene, and rational self-interest anticipate that individual actors will always work for their own advantage. These theories are challenged to explain how altruism, clearly evident in advanced social behavior, could arise given that individual fitness opposes it.

Kin Selection

First articulated in 1955 by British biologist, J. B. S. Haldane, kin selection sought to address altruism in nature and provide an explanation for group selection. Kin selection postulates that individuals are favorable to the reproduction of closely related organisms. Haldane was almost immediately troubled by the unlikelihood of such a gene spreading beyond very small groups. In a strict biological sense, kin selection argues that the individual is altruistic when relatives gain in individual fitness and the altruist's fitness is reduced. The theory was further defined by another British biologist, William D. Hamilton, in 1964. Hamilton described kin selection as an inequality, $rb > c$, known as the "Hamilton Inequality", wherein altruism will increase in frequency if the benefit to a recipient (b), multiplied by the degree of kinship (r), is greater than cost to altruist (c). It states that altruism would evolve if the benefit to a sibling is twice the cost to the altruist ($r=1/2$) or eight times to a first cousin ($r=1/8$) (Wilson, 2012, pp. 167-8). Said another way, Haldane stated that he would not lay down his life for a brother, but would for "two brothers or eight cousins" (Pinker, 2011, p. 354). Unless very closely related to the altruist (a child, niece/nephew or grandchild), it is unlikely that the benefits of an altruistic individual would result in altruistic genes being passed on and becoming established. Nonetheless, kin selection became a dominant theory for almost fifty years, perhaps because it has the advantage of intuitively appealing to our affinity for ingroups (Wilson, 2012, p. 51).

Kin selection offered and was long believed to be the ultimate causation of the evolution of advanced social behavior. There continues to be argument that kin selection

enables a group-level property called inclusive fitness, allowing for group selection. However, kin selection and inclusive fitness suffer in light of evidence and mathematical test for explaining group selection or advanced social behavior. There is no doubt that kin selection occurs on some level and may have enabled initial group identity and selection.

Pinker (2011) advocates that ancient humans maintained tight groups based upon kinship and this enabled them to engage in warfare, much like hunter-gatherer tribes continue to do today. This kinship is established along patrilineal lines and results in altruistic behaviors among warriors. However, further research indicates that only under very narrow conditions does the Hamilton inequality permit abundant cooperators (Wilson, 2012, p. 174). Wilson's studies mathematically demonstrate that measures of relatedness were not causal variables for the presence of altruistic behaviors. Among modern groups with similar levels of kinship different levels of altruism can be observed. Additionally, Wilson notes that kin selection would imply that clones would have the highest degree of altruism, but that is not the observed case (Wilson, 2012, p. 181).

Subsequent research also indicates that strict kin selection favors nepotism and inbreeding, both of which have a disruptive impact on fitness, with notable examples being found among the noble houses of Europe. And, even among those institutions most concerned with kin relationships, we find a history of bloody sibling rivalry and selfish behavior costly to kin. Incest avoidance is an almost universal trait among humans, giving rise to the "Westermarck effect", wherein individuals raised within the same household or in close domesticity during their early years avoid sexual activity – even

when not biologically related. Additionally, humans have not historically had the ability to demonstrate with confidence their level of kinship with DNA tests.

The implication being that biological relativity may not be as important as the perception of that kinship. After all, many of the chimpanzees in the Gombe groups knew each other from childhood, likely shared kinship, and had been friends for decades before the split, but once the split occurred, they became Us and Them. Among hunter-gatherer tribes there was a high likelihood that any male within a band was related and therefore a worthy beneficiary of altruistic behavior. Initially, this contributed to traditions of and cultures favoring altruistic behavior. As groups become larger, those relationships became less clear. However, cultural norms often persist long after changes occur in the environment for which they initially developed (Pinker, 2011, p. 101). In addition to close relationships, early human groups would have each developed a culture unique to itself. Each culture would serve as a solution set against the local environment. While there are likely to be more than one way with which to deal with the challenges of hunting, foraging, collective defense and child rearing, to name a few, each group develops a tradition in response to each; what Cohen (1997) describes as an outward unifying expression. Accordingly, group members mimic biological relationships through the adoption of cultural norms. With the establishment of culture, groups can advance beyond individual and kinship selection limitations to group or social identities that permit what biologists refer to as group natural selection.

Did Warfare Create Altruism

In a study published in 2009, Samuel Bowles sought to answer the question, “If more cooperative groups were more likely to prevail in conflicts with other groups, was the level of intergroup violence sufficient to influence the evolution of human social behavior?” (Bowles, 2009, p. 1293) He developed a model to determine the evolutionary impact of intergroup competition. His model employs a data set combining archaeological evidence for causes of death during the Late Pleistocene and early Holocene periods with ethnographic and historical information pertaining to modern hunter-gatherer populations. His findings indicate that it is likely that lethal intergroup competition among ancient humans had substantial effect in the proliferation of adaptations that were beneficial to the group, but significantly costly to the individual.

Darwin expected that certain behaviors, which he termed “social and moral qualities”, to include altruism, would be spread by war. Without a positive assortment within the group, individual selection would become prominent and altruism would suffer, giving war a paradoxical role. However, altruism might be maintained or increased as a result of group selection if the competing groups are genetically diverse and “altruists willingly fight on behalf of others in their group” (Bowles, 2009, p. 1294). It was hypothesized that in competitions among comparable groups, those with more altruists would tend to prevail.

From a game theory perspective, defense is a public good. Bowles (2009) views it as akin to participating in an n -person prisoner’s dilemma in which those who risk or incur sacrifice do so for ingroup benefit, but no direct personal gain. While recognizing

that the willingness to take mortal risks in combat is not the only form of altruism that could contribute to prevailing in intergroup contests, for purposes of his model, he employs a paradigm of the altruist as warrior. He makes the assumption that the more altruistic and, therefore, more cooperative groups would make more effective use of information and be more risk accepting, as trust among members would be higher.

From an evolutionary perspective, the outcome of conflict may impact the average fitness of group members in two ways. The first is the greater likelihood that individual members of losing groups will perish, producing fewer off-spring and/or leave children with inadequate parental care, resulting in higher mortality rates among the losers' existing off-spring. The second is that, as observed with chimpanzees in Uganda, weaker groups forgo use of border resources to avoid contact, even if the victorious group does not claim new territory.

Bowles sought to determine if an altruistic behavior, that reduced individual fitness with no beneficial effects for other group members other than increasing the group's probability of prevailing in lethal intergroup contests, could be explained by processes of natural selection. To be altruistic, the population must be so large that group success in conflict does not compensate the individual for the cost of the behavior in question. In other words, should the suspected altruistic individual be victorious, his individual fitness cannot be improved by directly acquiring loot, land or reproductive opportunities. Accordingly, the individual adopting an altruistic behavior decreases his/her (likely his) own expected fitness, relative to another group member not acting altruistically, while increasing the expected fitness of other group members as a whole.

Bowles studied hunter-gatherer tribes in Arnhem Land, Australia. With rock art in Arnhem Land depicting warriors and battles dating back 10,000 years and little contact until the modern era, Australia is considered to be an excellent example of late Pleistocene and early Holocene conditions. The availability of archaeological, ethnographic, and genetic data made this region a remarkable resource for Bowles' investigation.

Bowles studied wartime mortality among a single generation of the Anbara, Murngin, and Tiwi; each group of a "size considered to be typical of non-equestrian, non-Arctic foragers during the Late Pleistocene" (Bowles, 2009, p. 1294). He was able to estimate genetic differentiation among seven Arnhem Land Aboriginal groups, all in contact with each other. They ranged from the very peaceful Anbara, to the very warlike Murngin. Violence accounts for twenty-eight percent of the deaths of Murngin males (Wrangham & Peterson, 1996, p. 77). As a comparison, violence accounts for thirty percent of Gombe male chimpanzee deaths (*ibid.*, 70).

For groups as genetically differentiated as these populations, and as warlike as the Murngin, in the presence of ongoing, lethal, between-group competition, Bowles (2009) determined that group selective pressures favoring altruism dominated individual selective pressures against altruistic behavior. Even for relatively peaceful groups, like the Anbara, costly forms of altruism can be explained.

Bowles' (2009) analysis implies that the costs of altruism are substantial and in the absence of inter-group competition, individual fitness would likely out-weigh group fitness. His model indicates that the instances of altruistic individuals would radically

reduce, perhaps all but disappear, within 150 generations in the absence of lethal, intergroup competition (Bowles, 2009). However in the continued presence of lethal, intergroup competition among persistent groups, warfare altered humans and influenced development of advanced social behavior.

Gene-Culture Co-evolution

At that point, the stage had been set for a remarkable change in the continued evolution in humans. Human offspring required far more care and investment by parents. Surely this encouraged the establishment of campsites, nests if you will, where young were cared for and defended. There is evidence that humans developed divisions of labor among group members. We had begun to consume meat as a major part of our diet. The advantages of cooperation in the harvesting of meat contributed to the formation of highly organized groups (Wilson, 2012). These factors likely caused ingroup aims to become dominant over individual aims. In order for the group to succeed, individuals would have to be willing and ready to forget intergroup conflicts. Finally, the group would need to be ready to unite against outgroups. With these three components, the primacy of the ingroup would be attained (Korostelina, 2007, p. 73).

As *Homo* became specialized for a diet high in animal protein, they needed a high level of teamwork and technology to succeed. The employment of technology beyond knapped stones and wooden shafts likely contributed to specialization and further divisions of labor. Per the expensive tissue hypothesis, once humans began consuming large quantities of meat, they were freed for other activities. Control of fire is an achievement unique to hominids. Our bodies developed mastication and a physiology of

digestion for a specialization of cooked meat and vegetable matter. Cooking became a universal human trait. The sharing of cooked meals became a universal means of social bonding (Wilson, 2012, p. 47). It is not hard to imagine that as groups gathered around campfires, they became tighter and group identities more salient and its members more cooperative. Groups adapting a cooperative strategy were able to increase in size. Inevitably, this led to increased contact and competition with other human groups. The larger groups likely had a competitive advantage.

As evidenced from archaeological evidence and the behavior of modern hunter-gathers, our antecessors formed well organized groups that competed with one another for scarce resources that included food and territory. In the presence of other groups, we can expect the salience of group identity to increase. This increase of salience and favorable opinion of the ingroup very likely involves a negative comparison with any outgroup (Korostelina, 2007). For hundreds of thousands of years technology and weaponry among human groups were roughly equal. After numerical differences, the outcome of between-group competition can be assumed to have been determined largely by the social behavior within each group in competition.

Scientists observe chimpanzees, our closest primate relatives, on the assumption that our close evolutionary experience and the chimpanzees' resemblance of early human behaviors might inform our origins. It was long argued that warfare was a feature of human civilization and we were unique in its conduct. We have discovered that chimpanzees also go to war. They engage in lethal intergroup competition regularly and

under predictable conditions not necessarily related to defense of territory, resource competition or mating rights (Wrangham & Peterson, 1996, p. 22-6).

That chimpanzees and humans go to war is not in dispute. However, despite some similarities, there are a number of differences among human and chimpanzee social behavior. Perhaps our ancestors did engage in the very same type of intergroup conflicts that we observe in chimpanzees, perhaps for the same reasons. Yet, we have evolved to be creatures quite unlike chimpanzees with respect to awareness, cognition and cooperation. Incongruously, our tendency for lethal, intergroup competition may have greatly affected our evolution and given rise to altruistic tendencies among humans.

HUMAN NATURE

“As a consequence of the way it was built, the conscious mind, one of the architecture’s products, originated by gene-culture coevolution, an intricate interplay between genetic and cultural evolution” (Wilson, 2012, p. 217). We cannot escape the fact that we have been part of an ongoing experiment millions of years in the running. It is the height of hubris to declare humans distinct from the biological rules that created us, but, being conscious and self-aware, neither are we slaves to those rules. There has long been a debate as to whether human nature even exists. In *The Expression of the Emotions in Man and Animals*, Charles Darwin advanced “the idea that instinct evolves by natural selection” (Wilson, 2012, p. 158). Over the last century it was long argued that humans are born with a mental blank slate. More recent studies, especially at Yale University’s Infant Cognition Center, indicate that we are indeed subject to some genetic whispers. Even James Gilligan (1997, p. 233), despite arguing passionately against anything as primal as instinct driving human behavior, ultimately concedes that behavior, violent or otherwise, “can only occur in a psychophysiological and anatomical matrix.” Thereby implying that we are we a product of nature and nurture.

Prepared Learning

As opposed to the idea that the human mind is a blank slate and purely a product of its environment and experience, there is compelling evidence that we are subject to

epigenetic rules. Epigenetic rules are inherited regularities of mental development, prescribed by genes, “through which the universals of culture are created” (Wilson, 2012, p. 193). We do seem to be born with propensities to learn certain things swiftly and decisively. Some of these things may require exposure to alternatives or require some training. Examples of prepared learning include language and incest avoidance. It should not be shocking that species develop adaptation to avoid incest as it reduces fitness. Female chimpanzees are noted for sexual promiscuity, but they will not mate with maternal brothers (Wrangham & Peterson, 1996, p. 7). Similarly, in humans we observe the Westermarck effect. This describes a psychological effect that occurs when humans who are raised in close domesticity in the early years of their lives, even when not genetically related, are unlikely to be sexually attracted to one another.

In keeping with epigenetic theory, the avoidance of reproduction with potential siblings may be an example of an epigenetic rule, providing the individual with a course of action that automatically presents itself and appeals to the individual. Certainly, there are instances of behavior inconsistent with the Westermarck effect, as this epigenetic rule is not beyond conscious control. Language is acquired by human beings at predictable times and in predictable patterns, again, indication that this universal condition reflects some biological process. Similarly, other aspects of human social behavior appear to have biological roots.

Morality

If group behaviors are truly heritable, it is expected that we would observe them in very young children. And exactly this phenomenon has been observed by cognitive

psychologists. Paul Bloom, Karen Wynn, and Kiley Hamlin, all of Yale University, exposed infants to a simple morality play. Three puppets were playing with a ball. As the infants observed, one puppet rolled the ball to a puppet on the right, which then rolled it back to center. Then the central puppet rolled the ball to a puppet on the left. Instead of rolling the ball back to center, the left puppet ran off stage with it. Later, the infants were presented with the puppets to which the ball had been rolled. Each puppet had a pile of treats before them. The infants invariably took a treat from the ‘naughty’ puppet who had taken the ball. At least one went so far as to strike the puppet, raising the question, “Is violence a proper response to an immoral act?!” (Walter, 2013, p. 56)

Incidentally, anyone spending a weekend with my children could conclude that it is. I also observed that in baseball and softball there is a culturally accepted violent response to immoral acts. It is considered un-sportsmanlike to embarrass another team. When a batting team holds a significant lead in points and a batter bunts, a move most certain to get a player on base, the fielding team interprets this as an immoral act. Pitchers tell me that it is culturally acceptable (even if not wholly legal) to then hit a player of the opposing team with a ball, preferably the bunter, but another player will do. This is intended to “teach them a lesson” in proper moral behavior.

Further experiments involved children and a seemingly oblivious adult knocking over a can. Invariably, the child advised the adult of the loss of the can, and often assisted in its recovery. Similarly, a series of experiments have demonstrated that even very young children can be relied upon, without prompting, to retrieve items dropped or to assist in the opening of a door. In each of these controlled experiments of can, pencil

and door, the child had to stop the rewarding activity in which it was engaged in order to improve the situation of another person – even if they occasionally displayed some annoyance while doing so (Tucker, 2013, p. 39-41).

This cooperation is no surprise to anyone familiar with the prisoner’s dilemma. Game theory predicts that the best behaviors stand on a practical foundation of enlightened self-interest. Scientists find that, “if the game is played once, six players out of ten choose to testify against their partner” (Walter, 2013, p. 58) If the game is played for multiple rounds, however, the players exact revenge for defections and reward good behavior. With feedback, players learn how their opponents, dare I say counterparts or comrades, behave and, in time, the players begin to cooperate.

Robert Axelrod argues in *Theory of Cooperation* that tit-for-tat is the best solution for the Prisoner’s Dilemma and similar situations. Players should be nice, provokable, forgiving and clear. One is nice by not defecting first. Should the opponent defect, one also defects to demonstrate it can be provoked. Provided that the opponent cooperates in the next round, one should forgive and cooperate also. Over the course of multiple rounds, this should establish a clear pattern of conduct. So long as the interaction is not singular and there exists no prescience with regard to the last interaction, cooperators do better than defectors (Sandole, 1999, p. 196).

In many instances, in multiple rounds of play, players begin to apply the Golden Rule. When challenged to explain the Torah while standing on one foot, Rabbi Hillel, a Jewish philosopher of the first century BCE, offered, “Do not do unto others that which is repugnant to you. All else is commentary.” (Wilson, 2012, p. 245). Experience taught

our ancestors that cooperators were able to survive and reproduce. Inevitably, individuals within the group compete with one another for status, resources and reproductive opportunities. These pressures encourage individuals to develop the capability to read the intention of others, develop means of gaining trust, form alliances, and manage rivals.

Clearly, it would be to the individual's benefit to develop deception. If an individual can successfully cheat, they improve their situation at the expense of others. However, if defection spreads indefinitely the group will fail, resulting in either the loss of group saliency and a reversion to individual existence, or the failure of the individuals to pass their genes due to elimination by another, more cooperative group. If altruism is good for the group, individuals practicing deception would have to become very adept at doing so. Likewise, humans descending from successful groups would be likely to adapt very sophisticated means to detect that deception. Valerie Stone, University of Denver, studied human ability to discover social-exchange cheaters concluding "that uncovering cheaters was so crucial to survival that evolution favored neural wiring optimized for understanding when someone was not living up to his or her promises" (Walter, 2013, p. 66). Reputation as one who places group before self becomes very important.

SOCIAL CONSTRUCTS

An elaborate ceremony accompanied my being awarded the Purple Heart medal for being “wounded in action.” Following the ceremony, fellow service members haltingly congratulated me, expressed their sympathy, and even told me I was lucky to be able to wear the medal. I am often complimented for it and told that it is “impressive.” I have always found these compliments awkward, as I was not doing anything extraordinary at the moment I was wounded. The Marines to my left and right were just as exposed and just as engaged. I simply drew a short straw, but not one so short to not be writing this! I have come to recognize that this is, again, an appreciation by individuals for the sacrifice I offered and made for the group. My altruistic behavior, executed on behalf of the tribe, is valued by the individual members of the group. I am rewarded with an improved reputation, thereby reinforcing altruistic behavior. This, I gained through combat.

Expectations

The consequences of human evolution as described by Wilson (2012) and Bowles (2009) should result in observable behaviors and social constructs. First and foremost, like our chimpanzee cousins, we should expect an intense competition between and among groups. Next, we should be able to identify an unavoidable and perpetual conflict among the products of group selection (honor, virtue and duty) and the products of

individual selection (selfishness, cowardice and hypocrisy). There should be a means to determine the intention of individual actors within each group. Humans should develop social constructs to favor group selection over individual selection. In fact, we find all of these expectations to be satisfied.

Combatants

Collective violence, war, has been described as, and believed to be by many as, humanity's hereditary curse. When nations go to war they typically don't mobilize the entire citizenry, but a small percentage thereof. Typically, soldiers are young men. They are the ones least likely to have great responsibility or great accomplishments to build their pride. Most cultures in the world, however, revere, not merely respect, the warrior. Young men hear the patriotic, belligerent anthems and flock to banners because it is what society demands of them. They witness the funerals of soldiers with all the pageantry, even if those soldiers die years later as old men. Young men note the great respect and dignity, the status, conferred to men celebrated solely for martial prowess. It is no wonder that some see violence as a way to bolster their own developing self-esteem. This is part of what Gilligan (1997) means when he says that men are objects of violence.

I began this study to determine the reasons for an individual's positive opinion of combat; where combat was defined as among individuals but a component of collective violence. The combat would serve the purpose of group interest, rather than individual interests. Yet, I expected significant individual reward, either social or emotional, to the combatant in the violent act. I expected to find a predisposition to violence, for which combat is an acceptable expression.

Perhaps incongruously, although the violence is carried out individually, the individual need not be violent – only willing to employ violence. War is collective violence and it is the group that must elect to go to war. The rank and file, the individual, is subordinated to the group, simply doing what fate and duty demand of them. That is the overall sentiment of those interviewed in my study. They vehemently protested any suggestion that they were violent men. A Special Forces sergeant commented to me that this isn't simply violence, "there are rules." He went on to say that, "at some point you have no choice." The combatants could choose not to engage or surrender, but once joined the employment of violence as a tool was justified.

Indeed, among the veterans I interviewed, I found little concern for the use of violent means to defeat an enemy. A Marine veteran of the 1991 Gulf War stated that he did hesitate in his very first combat, but only to ensure that he was legally authorized to kill the enemy. This sentiment was consistent with other interview subjects. All expressed the sentiment that it was "him or me." There was no guilt expressed for killing the enemy, but perhaps over time some remorse that it had been necessary to do so. There was a correlation with age and this communicated remorse. The older the interview subject, the greater the empathy extended to the former enemy. With one notable exception, the World War II veterans, all of whom fought in the European theater against German forces, expressed continued hostility toward the Japanese. The United States tends to fight wars characterized by moral distance, as opposed to cultural. However, during World War II, we essentially fought two wars simultaneously. The war in the Pacific very definitely became characterized by the differences in culture and

ethnicity. The World War II veterans have long ago made peace with their European enemies. Two of the three have paid respects at German war cemeteries. However the cultural distance established relative to the Japanese still influences their behavior today.

I know from my own experience that is a painful thing to contemplate one's contribution to the ending of a human life. A combatant cannot empathize fully with the enemy; to do so will either cause the combatant to become ineffective or psychologically damaged. One cannot consider that the man just killed was a son, sibling or father. Instead we embrace a mythic view of combat in which we meet in a sanctioned space with the express purpose of competition, fully informed and enabled (Hedges, 2003).

Human beings have many prohibitions against murder (primarily aimed at frustrating the killing of ingroup individuals), but, as Gilligan (1997) notes, "the collective violence called warfare is with rare exceptions, entirely legal, not only according to the legal system of the nation on whose side any given soldier is fighting, but also according to that of the enemy nation" (Gilligan, 1997, p. 100). Hence, war is a morally justifiable act for the individual. Unlike chimpanzees, we construct social behaviors to limit violence within the group, but expend significant resources in developing the means to engage in collective violence. What matters most is group identity.

Violentization

Like group selection, war, although a collective activity, is executed by individuals. As they tend to address criminal violence, many theories of violence are not relevant to the violent acts of war, but some do have direct application. One such theory

that can inform our understanding about how society enables violence on its behalf is Lonnie Athens' Violentization Theory. Athens' theory, as described by Mark Winton (2011) of University of Central Florida, consists of four stages: brutalization; defiance; violent dominant engagement; and virulency.

Brutalization

During the first stage, brutalization, violence is taught. The individual is coached in the use of violence and made a witness to violence. The individual learns "that they will not be protected by the system responsible for them" (Curran & Takata, 2001, p. 1). The idea that there is an individual responsibility to employ violence is fostered in the individual. These ideas are communicated via various means. Among the more effective are vainglorification and personal horrification.

Vainglorification glorifies violence through story telling. As a child of elementary school age, I was a fan of the television show *Batman and Robin*. Every episode featured the good guys, Batman and Robin, countering the ambitions of a myriad of bad guys plaguing Gotham City. Invariably, it would come to fisticuffs, replete with cartoon bubbles of multi-colored mayhem! I was also a student of any television show or movie dealing with World War II. Again, in these shows, the good guys (Us), fought the bad guys and I reveled in their violent victories. Indeed, as a child I was certain that their victory was as much a matter of moral certainty as historical fact. In contrast to the Vietnam War, the Second World War was also a "good war" in which our boys were the "liberators" of people oppressed by fascist tyranny. On screen we were noble and just. We saved the world. I might add that my favorite toy at the time was the eleven inch G.I.

Joe action figure; who, along with his arsenal of weapons, incongruously came with a peace symbol medallion. As a child, I was taught that good guys employed violence.

Defiance

In the second stage, defiance, the individual develops a violent belief system. The individual comes to believe that one must carry out violent acts in order to be successful, liked, or worthy; or, perhaps, to avoid being subjected to violence themselves. The individual concludes that “they must brutalize others or be brutalized themselves” (Curran & Takata, 2001, p. 1). While I would not have articulated it so, it was apparent to me even then that international systems wouldn’t keep us safe – only force of arms. This stage, as it applies to collective violence and its individual actors is reinforced in society through symbols, literature and ceremony. As a child, I was instructed to stand tall for the veterans passing in the parades. I was taught that those men, many of whom I knew and were otherwise unremarkable, were worthy examples of emulation, because they had fought for their country.

Violent Dominant Engagement

The third stage of violentization, violent dominant engagement, is the reinforcement of violent acts carried out. The individual is compelled to conduct violence, to test it out, to become proficient and gauge group reaction (Winton, 2011). Athens argues that it takes more than a resolution to be violent, as “actual violence is frightening and dehumanizing” (Curran & Takata, 2001, p. 3). Individuals must be sure of their ability to perform a violent act should they be called upon to do so. There must be confidence in the outcome in order to avoid shame. The individual must be confident

in their ability. The United States Naval Academy requires all midshipmen to take boxing, in part to face their fears of physical pain and to overcome reservations for engaging in violent acts. Military forces the world over train individuals to set aside empathy and condition them to the idea of inflicting violence upon them. This is done through tools such as simulation training, wherein the individual is placed into a virtual environment where the images of combat can be absorbed safely and in live training employing laser emitters and sensors, accompanying by explosive simulators and blank firing cartridges.

The live training is particularly effective. The individual is able to engage other human beings with almost all the sights and sounds of the real battlefield. Studies following the Second World War indicated that a small fraction, perhaps only 15-20% of troops deliberately fired their weapons to kill an enemy combatant. The United States military modified training to increase the likelihood of combatants to engage. During the Korean War that percentage rose to 50% and then greater than 90% during the Vietnam War (Grossman, 1996). From my own experience over the last twenty-five years and a small sample-size study, it is likely that United States combatants engage with even greater ease now. United States troops have become so well trained and conditioned to the battlefield that many of those I interviewed stated that real combat proved not nearly as chaotic and quick as training had been. Amazingly, the Australian SAS, which employs very similar training, has had more men killed in training than in actual combat (Walters, 2006).

Virulency

The final stage, virulency, is achieved once the individual develops a self perception as well as a reputation as a violent person. At this point, according to Athens, the actor is famous or notorious depending upon perspective and becomes overly impressed with their violent performances. "Filled with feelings of exultancy, he concludes that since he performed this violent feat, there is no reason why he cannot perform even more impressive violent feats in the future. The subject much too hastily draws the conclusion that he is now invincible" (Curran & Takata, 2001, p. 5). Other actors are reluctant to disabuse this notion because they enjoy the protection of or refuse to risk the wrath of the exultant violent actor.

Per Athens, an actor at this stage "now firmly resolves to attack... for the slightest or no provocation" (*ibid.*). I cannot help but notice the similarities between Athens' fourth stage and the United States National Security Strategy 2002 (2002 NSS). The 2002 NSS states that the "unparalleled strength of the United States... maintained the peace in some of the world's most strategically vital regions" (NSS 2002:29). Unfortunately, the Bush Administration also stated in the 2002 NSS that the United States could no longer rely solely upon a reactive posture and that the immediacy of modern threats required not only the option of preemptive action against imminent threat, but also "anticipatory action to defend ourselves, even if uncertainty remains" (*ibid.*, p. 15). Not to worry though, any action would "be clear, the force measured, and the cause just" (*ibid.*, p. 20):

Avoiding Shame

In *Violence*, Gilligan (1997) develops a theory of violence based largely on shame. He writes that he had not seen “a serious act of violence that was not provoked by the experience of feeling shamed” (Gilligan, 1997, p. 110) (the aforementioned bunt during a one-sided ball game perhaps an example on the low end). Clearly this does not hold with combatants taking part in collective violence.

However, avoidance of shame can be significant in countering instincts of biological self preservation. That men are objects of violence not only means that they gain respect from peers and society through justified violence, but also that their self-esteem can be reduced by refusing to participate in those acts. There is no greater fear among men than fear before the enemy. Combat soldiers are more scared to “show the feather” than they are of getting killed. Nothing can illustrate this more than the fact that during the First World War, old women, who by most accounts should be the most lovable and supportive elements in society, passed out white feathers to young men not in uniform on British streets (Hart, 2010). The message is clear. Even women in society recognize and foster an aggressive spirit in men; and in young men in particular.

Few of the veterans I interviewed witnessed men falter in battle. In those instances where it was reported, there was an occasional, onetime contempt, but, overall, there was sympathy. The comments included, “I felt sorry for them”, “sad he couldn’t cut it”, and “sorry that he couldn’t stand tall.” The implication being that the interview subjects suspected that those men suffered some disappointment in themselves, as the interview subjects clearly did. Hesitation in combat should be understandable. In

Hedges (2003, p. 39) experience, despite vainglorious mythologies, we “usually wilt in combat.” Individual selective processes should result in self preservative behavior. Yet, to be successful in lethal intergroup competition, individuals within the group must set self preservation aside and risk death. Perhaps the surest way to reduce self-preservation behaviors is by establishing the group identity over the individual identity and making altruistic acts a hallmark characteristic of that identity. Accordingly, the one most effective way to get men moving forward in combat is to move forward yourself. They cannot bear the shame of anything associated with cowardice, particularly when confronted with another’s “bravery”.

As much as basic military training develops technical skills, tactics, techniques and procedures, it’s most important function is to instill within the individual a sense of loyalty to the organization, the group, Us, so that it supersedes the individual’s identity. For example, to refer to oneself as “I” remains unacceptable while training at Marine Corps Recruit Depot Parris Island, SC. When I was a Marine recruit, Drill Instructor Sergeant Dargon could offer no greater negative assessment than leaning into to me and whispering, “Boy, you are about an *individual*.” The aim of Marine basic training, ultimately, is to ensure that each young graduating Marine sincerely believes that “the Marine next to you is more important than you are” (Schaeffer, 2002, p. 200). To fail that Marine, any Marine, in any way, would bring shame.

Pinker (2011) believes that military training is intended, in part, to create the illusion of genetic relationships in order to promote such devotion. Military culture invokes ideas of fraternity and fidelity through shared hardship and chosen glories. The

saliency of military social identities is typically high because ingroup primacy is a requirement of group membership – meeting all of Korostelina’s (2007) requirements. The more demanding the cost of group membership, the more salient the identity. SEALs, Special Forces and U.S. Marines in general have reputations for high saliency of those identities. A retired U.S. Army Sergeant Major who I interviewed noted that his identity as a soldier fell short of those expressed by Marines. In his words, “They believe that they are that good.” He attributed that fraternity to their reputation as effective combatants.

Uniformity of appearance is critical to both the social identity and semblance of kinship. Accordingly, the military expends a great amount of time on uniforms. Colonel Robert Walker, U.S. Army retired, remarked that as a young officer, he sought to distinguish himself in the wear of his uniform. After some trial and error with personalization, he concluded that the way to stand out was to fit in; to wear one’s uniform with deliberate and strict attention to the regulations (Walker, 2000). Even as outward appearance is made identical by dress, military culture suppresses biological differences among its members. Within military groups, ethnic identities are reduced. For example, in U.S. Marine culture, Marines cease to be Black, Caucasian, Asian, Hispanic, or Latin. All Marines are “green.” And, we all bleed red.

As soon as our blood is shed, we place great emphasis on the ‘cause.’ I was at Breech Point West the night we invaded Iraq in 2003. I remember quite clearly, the report of the first casualty that evening. In the days that followed, many more would fall, but none would receive the attention of that first death. Within minutes every Marine

knew that a Marine had been killed. We had traveled to the other side of the planet and invaded a country that had not attacked ours, but all moral ambiguity ended once 2nd Lt Childers fell. The lieutenants took pride that the first sacrifice had been theirs and after that first death, as Hedges (2003) recognizes, the cause could not be questioned.

During the last week of March 2003 in the midst of a paralyzing dust storm, I found myself along with nine other Marines as the only protection for an American medical unit suddenly in the path of a much larger Iraqi unit. We were outnumbered between five and ten-to-one. We ten had the means to withdraw, but the casualties on the ward could not be moved. As the environmental conditions prevented long range fires and reduced the likelihood of relief, we were certain that we would be overwhelmed simply by the size of the Iraqi force if we engaged. My lieutenant made the decision to stand and fight. We who had so long wielded the reputation of being Marines, reputations earned by men generations removed from our own, could not bear the possibility of failing to live up to the expectations and examples of other Marines; particularly those who had established our chosen glories. My obligation to the nine Marines beside me was self-evident. My obligation to those men on the ward, who had already demonstrated their devotion, and as I recall three had demonstrated it fully, was absolute. The wounded could not come to further harm while we still had breath. The dead would suffer no indignity. To fail them would incur shame.

Two weeks later, with the help of my comrades, I quit the intensive care unit of a field hospital I had been in for the preceding forty-eight hours. I endured great pain and took significant risk to return to my unit because I could not bear the thought of them

taking risk without me. I would rather have died than to have disappointed any of those men. As observed in so many street toughs, we found death of the body preferable to death of the soul (Gilligan, 1997, p. 48). This social construct caused us to act biologically altruistically. The primary actors in war, the combatants, are minimally rewarded with greater self-esteem and, more importantly, not subject to shame.

The individual does not choose combat, the group does, and the individual serves the group. The individual combatant does not expect a direct improvement in fitness through combat, only potential reduction of fitness, at least from a physical perspective. There can be an improvement of status within the group, but there is nothing to indicate that that improvement equates to an improvement in biological fitness. From a social perspective, the individual satisfies an expectation of altruism necessary to meet group norms, for continued group cohesion, and continued group success. Put simply, the individual performs his duty to the group and is viewed positively by other group members. To paraphrase General Robert E. Lee as to the importance of duty; we can never ask more and we can never accept less. In doing so, the individual may increase in self esteem. The individual certainly avoids shame. For the majority of human culture, humans likely knew well every other human with whom they might regularly be in contact, a failure to risk for the tribe- as evidence of cowardice - would be known to all; there was no anonymity. This deeply ingrained concepts of duty and honor.

Reputation

Within each group there still occurs competition for status and trust. We come to define group selective behaviors as virtuous and individual selective behaviors as sinful.

There exists perpetual struggle among the two classes of behavior. Each human culture has devised ways to recognize the good group behaviors. Since altruistic acts on behalf of the tribe are most desirable and there is no greater altruism than the risk and sacrifice of life, we should expect that the military cultures of each society should devise elaborate behaviors among and for its warriors to mark and recognize altruistic acts.

Darwin observed that men “favored adornments designed to strike terror into their enemies during battle because a fierce warrior is often attractive to the opposite sex” (Walter, 2013, p. 129). Pinker (2011) observes that among the incentives for combatants to meet group norms is a system of decorations military personnel wear on their otherwise uniform uniforms. The wife of a service member told me that her husband is “inexplicably more attractive in uniform. I know what his decorations mean. I know what he did to earn them. It makes him more attractive. I know he’ll defend me.”

Brigadier General Charles Petrarca, a veteran of the war in Afghanistan, declared to me that reputation is the reason that military members wear awards on their uniform. The uninitiated among us see the displays of awards on our chests and are often impressed. I have had many make a point to recognize my own array. Military members tend to be much more reserved with their praise. While campaign ribbons count for something, among the veterans I have interviewed, combat awards trump all. Perhaps it is no surprise that the top two awards in the U.S. system can only be awarded for bravery in the face of an armed, hostile enemy. What may be surprising to some is that of the nineteen or so personal awards that U.S. military personnel can receive, only five are awarded exclusively for interaction with an armed hostile enemy. Some of the other

awards require some element of heroism, but not necessarily heroism in combat. Some of the other personal awards can be awarded for valor in combat and are typically presented with a “V” to distinguish them. All of the veterans that I have interviewed indicated that they look for combat awards and give little value to any others, often dismissing non-combat awards worn by senior military personnel as an organizational courtesy reflecting their rank. A number of those interviewed stated that the value of a “V” exceeded the value of the award on which it had been placed. The Vietnam War veterans interviewed stated that they only took notice of combat awards from the Silver Star Medal and higher. One stated it was because, “You knew that guy did something... Oh, and Purple Hearts, too.” Of the nineteen personal awards for which service members are eligible, the Purple Heart medal, awarded for being wounded in combat, has precedence placing it in the middle, but among the veterans interviewed, it is held in high regard because it confirms the individual accepted risk and suffered for their service. Combat decorations are significant to an individual’s reputation because they indicate that the wearer took significant risk for the group with relatively little reward.

Culture

In the western tradition, Gilligan and Hedges find that the Greek tragedies, Shakespeare and the Bible “map with fidelity the universe of human violence.” (Gilligan, 1997, p. 57) These traditions pervade our perceptions with ideas of glory and heroism that are not easily shaken. Among the veterans I interviewed, two literary passages repeatedly came up: the Bible’s John 15:13 and Shakespeare’s *Henry V*. John 15:13 offers that there is no greater love than laying down one’s life for another. Shakespeare’s

Henry V provides us with the Saint Crispin's Day speech. The Saint Crispin's Day speech holds among the veterans with whom I have spoken an almost universal truth. It is important to note that the king doesn't proclaim them brothers for their martial prowess. There are fraternal bonds, not for shedding the blood of the enemy, but for those that shed their blood alongside the king, the embodiment of the nation, the group, Us. Our societies celebrate and value the warrior with courtesies that do little to improve the warrior's life, but appear to be valuable to us all.

The United States government maintains a Department of Veterans Affairs. In local communities, the veterans of local fraternal organizations march in parades to be heralded by their fellow citizens. We establish special rules for outgroup individuals (non-citizens) who opt to serve in our uniform enabling them to join the ingroup (become citizens). There is no faster path to manhood. When I returned home from Parris Island in the uniform of a U.S. Marine, I was immediately admitted into the ranks of the men. Due to my being wounded, I am qualified to be interred in the *sacred* ground of Arlington National Cemetery - which I presume to be sacred only to U.S. persons.

Human cultures name streets and buildings and ships and organizations after people who have made altruistic sacrifice for benefit of the group. Perhaps a conceit to the ego, but it is a way to extend one's name and reputation beyond the flesh. In ancient Sparta, there was only two ways for a Spartan citizen to earn a name on a tombstone: death in battle for the group; or death in child birth, expanding the group.

REDUCING VIOLENCE

In *The Moral Equivalent of War*, William James (1910) observes that “History is a bath of blood.” The Twentieth century saw many deaths through violence to be sure. However, since the rise of the nation state, violence has been trending down. As compared to nonstate societies, modern western countries suffer only about one quarter the rate of death due to violence (Pinker 2011). Since the end of the Second World War, violent conflict between states has declined drastically (Goldstein, 2011, pp. 21-22). This reduction is due in large part to the deliberate efforts of an untold number of people working to reduce, if not remove, the prospect of lethal intergroup competition. Principal among these efforts is the development of processes to address not only the positions, but the underlying issues of conflict.

Three Pillar Approach

By the time conflict becomes kinetic, actors are often left asking, “how did we come to this?” In reality, the posers of the question are asking, “How does a Manifest Conflict Process (MCP) become an Aggressive Manifest Conflict Process (AMCP)?” Answering that question is critical to knowing how to respond should it occur. Even better, answering that question is key to preventing the AMCP from arising in the first place (Sandole, 1998).

Ultimately, violence is not committed by a system. It is individual actors that make decisions and move the conflict through various levels and processes. It is helpful to have framework into which one can place and track information and participants. There are several models with which one can model conflicts. However, most, such as the Wilmot-Hocker or SPITCEROW models, are not sufficient to map a very complex conflict. A more complete and appropriate model to use would be Dennis Sandole's Three Pillar Approach (Sandole, 1998).

The Three Pillar Approach maps conflicts into three general categories: One-Conflict; Two-Conflict Causes and Conditions; and Three-Conflict Intervention 3rd Party Objectives (Sandole, 1998, p. 3). This mapping scheme allows for mapping at both the macro and micro levels. Under the Three Pillar Approach, pillar one is placed in the center. Pillar One concerns itself with the Parties, Issues, Objectives, Means, the Parties Conflict Orientation, and their Conflict Environment. Pillar Two reflects the potential, probable and/or present causes of conflict at the Individual, Societal, International and Global levels. Pillar Three, Third Party Intervention, details Prevention, Management, Settlement, Resolution, and Transformation. Pillar Three also outlines the intervenor's orientation to the conflict whether it is competitive or cooperative.

The conflict mapping should be periodically reviewed to ensure that latent conflicts are being addressed before they develop into MCPs. Once the conflict resolution plan is in place and the mapping model and intervention techniques are taught, we need to ensure that first resolution and then transformation is pursued. We should

quest for prevention, wherein the parties are aware of conflict resolution techniques and resort to those skills rather than fighting over the long term.

The Three Pillar Approach provides a very practical tool to use in conflict mapping, intervention and resolution. It must be remembered that once utilized, it is only as good as the information being fed into it. This mandates routine scrutiny and review. It also requires that those providing information are speaking to the right parties, ask the right questions and are aware of cultural norms.

Environment

Pinker (2011) and Goldstein (2011) recognize that under-governed spaces promote violence. Similar to economic systems, stability and predictability promote the development of social structures that reduce violence. The example provided by Pinker (2011) of the American frontier mentality contrasted against the experience of those in the Canadian west being an excellent example of the importance of governing authority addressing the human need for security. In the American west, citizens went into the wild and were expected to administer their own security and justice. In the Canadian model, the Canadian Mounted Police assumed those responsibilities from the outset. The contrast of the violent, self-reliant American frontiersman with the relatively benign Canadian cannot be understated. Canadians had alternatives to violence

Globalization, while often cited as a source of conflict, has also served to reduce it. Globalization can reduce cultural distance and enlighten as to moral abuses anywhere in the world. Moral positions enacted through trade, diplomacy or communication can influence issues from far afield. Globalism can assist in creating new, common identities

and positions. The boys involved in the Robber's Cave experiments were brought back together in the third week. The controllers then gave them tasks and goals only achievable if they worked together. By creating interdependencies and reestablishing a common identity that incorporated their previous groups, the boys quickly came together cooperatively.

Likewise, the involvements of international and supranational bodies reduce conflict. Whereas the League of Nations failed, the United Nations and European Coal and Steel Community stand as outstanding examples of organs that provided trust, through improved communication and interdependence. Ultimately, this is most important. The challenge of the prisoner's dilemma is predicting and trusting the other player. When life is on the line the stakes are high, but when one's group – culture, nation or tribe is at stake – the outcome is potentially catastrophic. Individuals are most concerned that their group will disappear (Korostelina, 2007, p. 16). It should not be surprising that even a slight ambiguity can result in conflict.

My experience in U.S. military operational and strategic level wargaming supports that conclusion. It is noteworthy that the two aggressors in games are, if not U.S. military officers, certainly both western military officers. They are the products of the same schools, training and experience. Despite this, miscalculation of the adversary's intention is a factor in almost every game. In the absence of international spaces in which to exchange ideas, we would indeed be locked into a cycle of endless warfare.

CONCLUSION

Following the cease fire between Iraq and the Coalition in 1991, I was fortunate enough to receive a three-day pass. So it was I found myself with two comrades on the streets of Bahrain. Literally within minutes of arriving, we were confronted by a Kuwaiti asking if we were Americans and then if we were military. I told him that we were with the 3rd Marine Regiment. He dropped his briefcase, as his hands and face went to the sky.

“Third Marines! Third Marines! You liberated the airport!”

“Yes, sir, 3rd Marines did liberate the airport.”

“You liberated my house!” He ushered us into a bar and ordered drinks. He explained he was on his way to the airport at that very moment; going home for the first time in a year. It was because of us, he said, that he had a home to go to. The drinks arrived and he gave one to each of us, and then raised his own.

“My friends, my son says prayers for your dead every day. My little granddaughter says prayers for George Bush and the U.S. Marines. You will live in our hearts forever.” And we drank. He barked another order to the bartender and then turned back with a pained expression.

“I have to go. I am going to miss my flight. I wish I could do more for you, because truly, I owe you everything. May God smile on all that you do.” With that he

snatched up his briefcase and bolted out the door to get to the airport; to go home to his family, his freedom and his future. He left behind him, three more drinks on the bar, every bit of cash he had in his wallet and three slack-jawed Americans, not quite sure what had just happened. I was a twenty-two year old sergeant and, like my grandfathers before me, I was a liberator. And it felt like I had saved the world entire. This is my vainglory.

Human beings are animals that have been shaped by eons of evolutionary pressure. Our antecessors long ago diverged from those of the other primates and were molded by environments similar to those that created the chimpanzee and bonobo. That these two species, so remarkably similar in genetic construction, can exhibit so radically different life styles and approaches to conflict management can inform our understanding of nature's role in human aggression. A simple change in one variable, the absence of competition for food resources, has resulted in the development of social constructs to mitigate male aggression in bonobos; though many of the behaviors described by de Waal (1990) would be considered perverse in just about any human society. However, the bonobo example does support Pinker's (2011) assertion that the empowerment of women leads to a reduction in male aggression. Given the ability of humans to control their environment and meet basic needs, the chimpanzee-bonobo contrast indicates that innate aggressive tendencies can be governed.

However, we are neither chimpanzees nor bonobos. Our line gave rise to a species that developed different solutions to the problems presented by the environment. Among these solutions were very high degrees of cooperation, tendencies for altruistic

behaviors and salient group identity. The adaptation for early birth and development of technologies requiring composite construction utilizing disparate natural materials all contributed to the establishment of Wilson's (2012) defensible nests featuring multi-generational presence. The individual became subordinate to his/her group. These adaptations for persistent groups resulted in each group being subject to group selection through intergroup competition. We developed social constructs to promote the saintly behaviors that favored the group and discourage the selfish behaviors promoting individual selection. Given the scarcity of resources on the African savanna, we viewed other groups as potential competitors for resources and engaged in frequent intergroup lethal competition. The incessant conflict among tight groups in our early history further selected for violent, as well as altruistic, behaviors.

Altruism became a dominant cultural trait through gene-cultural evolution over the course of thousands of generations, each one of which engaged in lethal intergroup competition itself. As it was essential for group survival, eusocial behaviors gave rise to adaptations favoring altruism and strong ingroup social identities. Adaptations for shame and pride occurred to ensure altruistic behavior in the course of intergroup competition, again, sufficient to overcome pressures for selfish behavior. Culture created structures to value and incentivize altruistic behavior and punish selfish behaviors, primarily with respect to the ingroup. Unfortunately, this only exacerbated a human predisposition to engage in lethal intergroup competition. Thus, giving lethal conflict the paradoxical role of encouraging both our worst and best traits.

It is clear that while humans, particularly males, can be provoked, compelled and enabled to act violently, it is equally clear that those behaviors are often in conflict with other aspects of the human self. Societies go to great lengths to encourage controlled and disciplined violence among its warriors through the glorification of the act. However, these acts take a tremendous toll on the actors. Statistics indicate that of the 2.8 million U.S. veterans of the Vietnam War, at least 400,000 and as many as 1.5 million suffer from post-traumatic stress disorder (Grossman, 1996, pp. 290-1). There is increasing concern in the United States over the rising number of suicides among military service members subject to repeated rotations in Iraq and Afghanistan. Recent studies indicate that the current suicide rate among military personnel has risen by an astonishing 78% since 2010 (RTT, 2013). This attests to the inherent conflict of noble aspiration to duty and the harsh reality of committing repugnant acts, and society's role in overcoming that natural aversion to harm another human being. As a father, I believe that there is nothing worth the risk of my children in the absence of existential threat. And, I imagine most parents feel similarly.

Yet, still our society is permeated by aspects of violentization. We subject our children to traditions of vainglorification and promote the sacrifice of warriors as noble, virtuous and enviable. Young men, in particular, are subject to the opportunity to gain in status and build the self-esteem concomitant with subordinating their interests to those of the group. Even if the resulting rise in status is insufficient to improve individual fitness, it does provide the individual opportunities to avoid shame and suffer diminished status.

So long as the ingroup has a perceived need for countering outgroups, we'll need warriors and develop social constructs to enable them.

However, since the rise of the nation state, the instances of violence, particularly collective violence, have been trending down in the aggregate. As compared to nonstate societies, modern western countries suffer only about one quarter the rate of death due to violence (Pinker 2011). Since the end of the Second World War, violent conflict between states has declined drastically (Goldstein, 2011, pp. 21-22). This reduction is due in large part to the deliberate efforts of an untold number of people working to reduce, if not remove, the prospect of international conflict. Principal among these efforts is the establishment of supranational organizations and the development of processes to address not only the positions, but the underlying issues of conflict and promote positive peace.

There are various agreements, institutions and efforts designed to create interdependencies, improve partnership, and foster understanding in the globe today. In that process, we have also created and expanded identities. The goal of which should be to ensure that the single identity to which we can all lay claim is as fellow human beings. This ever expanding awareness, reduction of exclusive, contrasting identities and increased governance beyond the nation state have occurred as part of the phenomenon of globalization. Sociologist Louis Kriesberg identifies eight "peace factors" that have contributed to the decline of "violent conflicts since 1990: the end of the Cold War; the dominance of U.S. power; the economic benefits of globalization (which war would disrupt); spreading norms about peace and human rights; spreading of democracy; the proliferation of NGOs; the increased participation of women in politics; and the growing

field of conflict resolution” (Goldstein, 2011, p.15). While many leaders are willing to sacrifice a little prosperity (or a lot) to enhance national grandeur, to implement ideologies, or avenge historical injustices, the further developed a country’s trading infrastructure, the less likely they are to resort to military force to resolve disputes.

The doctrine of gentle commerce posits a pacifying effect from trade to be “even more robust than the pacifying effects of democracy” (Pinker 2011, p. 287). While the global economy continues to have highs and lows, economies continue to grow over time and incomes have risen substantially in many poor countries; most notably those in China and India. Additionally, both education and health have improved considerably. Thus, there are indications that the globe has also witnessed a reduction in structural violence (Goldstein, 2011, p. 209).

While cultural imperialism may occur, one can argue that globalization provides an opportunity also for “cultural synchronization” (Scholte, 2000, p. 23). With increased engagement and interaction via social networks, we can share ideas with people globally. When we travel we are likely to recognize common signage, company logos, products and services. As our economies become ever more integrated, we become more interdependent. Other’s success may very well equate to Our success.

There is a growing humanitarian aversion to war. As the globe shrinks it becomes relatively more intimate and some researchers are employing the term “global village” to describe this increase in intimacy. Within a village, the experiences of other individuals are immediately felt. This increases empathy and concern for fellow human beings universally.

James (1910) and Hedges (2003) would agree that our incessant warfare is irrational, illogical and immoral; born out of avarice, shame and a conceit by which strong men get others to improve their ends. I suspect that Wrangham and Peterson, (1996) would agree with Wilson (2012, p. 62) that “Our bloody nature... is ingrained because group versus group violence was a principle driving force that made us what we are.” Gilligan (1997) and Garbarino (1999) might argue that violence is nothing more than a predictable response to negative environment and conditioning. I think it clear that war is not a unique construct of human culture. Nor is it a rigid expression of biology to which we are slaves.

Many of our contentious behaviors are epigenetic and can be modified; or are socially constructed and can be likewise modified. Due to the evolutionary processes that created us and our societies, the best of our nature not only coexists with, but was likely a product of, the worst of our natures. We may never be able to remove it, but we can deliberately develop social structures that do not empower our darker natures, but instead encourage the better. In the meantime, working alongside the politicians, activists and humanists, are military forces populated with altruistic warriors ready to keep the peace – hopefully for a common morality.

APPENDIX A – INTERVIEW RESULTS

The sample size was small, only twelve subjects, and limited to combat veterans. They were assured anonymity in their responses. The subjects range in age from mid-twenties to late-eighties. Their combat experience dates from the Second World War to the ongoing war in Afghanistan. Three of the interview subjects are World War II veterans. Two are veterans of the Vietnam War. One is a veteran of the 1991 Gulf War. Two are veterans of Operation Iraqi Freedom. Four are veterans of the ongoing war in Afghanistan, Operation Enduring Freedom. As fate would have it, all of them volunteered for service, none of them were conscripted. Five of the twelve joined the service during a period in which the United States was not engaged in a declared war or ongoing engagement defined as a war. Seven joined the service during a period in which the United States was engaged in an ongoing conflict.

Of the twelve, five were commissioned officers and two of them had enlisted experience in addition to their commissioned service. Four of the twelve completed a career and earned a military retirement. Four of them served one enlistment and left the service. Four of them are currently serving. Two of those currently serving plan to complete a twenty-year career and two are indeterminate as to their career ambitions with respect to uniformed service.

The interview subjects represent all four armed services of the United States. Seven served in the U.S. Army. Two served in the U.S. Air Force. Two served in the U.S. Marine Corps. Two served in the U.S. Navy. One of the subjects served as an enlisted Marine and currently serves as Naval Officer. Their combat experience occurred while two were assigned as intelligence personnel, five as infantrymen; two as pilots; one as a sniper; one as a medic; and one as a Special Forces sergeant.

Interview results follow:

Question 1) Why did you join the service?

All declared an obligation to duty. Additionally, one stated he joined the National Guard for extra money. Another joined the service during a period of conscription and wanted to choose his own fate – subsequently finding himself in the infantry fighting in Vietnam. Six of the respondents stated that they wanted to leave their hometowns for some adventure.

Question 2) When you encounter service members in service uniform, do you look anything in particular?

Six of the respondents stated that they are most concerned with the wear of the uniform. It was important to them that the individual wear it “proudly” and “appropriately.” It was clear that the respondents took great pride in their service and expected others to do the same. They perceived others in uniform as a reflection of themselves. Three respondents stated that they looked for either combat decorations or combat badges. They were most concerned with whether or not the individual was a combat veteran. Two respondents stated that the first thing sought out were unit

identifiers. For them there is an affiliation similar to kinship among those who served in the same units, even if not during the same period. One of the respondents stated that he first looked to determine the (U.S. Army) branch to which the individual belonged. Soldiers in the U.S. Army wear symbols indicating the functional area in which they are expert. The respondent was keen to establish if the individual was in the combat arms or some support branch.

Question 3) Do certain awards individually or categorically stand out among others?

All respondents replied that combat awards were the most important to them, particularly Silver Star medals and higher, because, as one respondent stated, “You knew that guy did something.” Interestingly, both Vietnam veterans in the survey stated that the only awards for valor they valued were Silver Stars or higher. Those medals tend to be the senior medal on a uniform and easily identifiable. Within a collection of ribbons (worn in lieu of medals on service uniforms) six respondents indicated that they looked for a “V device.” As it sounds, V devices are representative of the letter V and affixed to those awards that are not exclusively awarded for valor, when awarded for valor.

Although those awards are typically of lesser precedent, four respondents indicated that the value of a “V” exceeded the value of the award on which it had been placed. Among the enlisted personnel, combat awards worn by junior enlisted men were held in particularly high regard. Seven of the respondents viewed combat decorations worn by senior officers as suspect, until they learned the cause for the award. They stated that awards earned by senior officers were often inflated or reflected the accomplishments of their subordinates. Ten of the respondents also placed a high value on the Purple Heart

medal, because its award is very straight forward with little subjective interpretation. Three respondents stated that they saw a Purple Heart Medal as confirmation the individual truly served the nation. The one Purple Heart Medal recipient respondent, a retired sergeant major, stated that he saw it as a qualifier for a special fraternity, especially among recipients who continued to serve thereafter. Ten of the respondents stated that they disregarded non-combat awards worn by senior military personnel (E-9s or O-6s and above) as likely to be an organizational courtesy reflecting their rank.

Question 4) What was your anticipation of combat?

All twelve respondents looked forward to combat and found the prospect of it exciting. All twelve stated that they saw combat as an opportunity to demonstrate their worth or test themselves, perhaps to validate themselves. Four stated that they thought it would be fun. All of them expressed the idea that they wanted to validate their training, this was particularly important to the one veteran who had been in the service for thirteen years before engaging in combat.

Question 5) How did the experience of combat compare to your anticipation?

Seven of the respondents, all of them post-Vietnam veterans, described combat as a disappointment. They indicated that they found combat operations “boring” and that training had been faster, more chaotic and generally harder. One of the Vietnam veterans stated that combat was initially fun, but “after the first half-dozen fire fights, it wasn’t fun anymore.” After that, it became a less-than-stimulating job that had to be done. The other Vietnam veteran described combat as “more scary than I thought it would be.” All three World War II veterans described combat as more frightening than they had anticipated.

Question 6) How do you reflect on that experience now?

Five of the respondents, veterans of the 1991 Gulf War, *Operation Iraqi Freedom* and *Operation Enduring Freedom*, all commented on the absurdity of combat. They remember it as being slower and funnier than it should have been. They stated a grotesque fascination with the more dynamic kills; a body blown apart by a grenade or sent flying through the air by some explosion. This fixation on the unusual included dramatic close calls where comrades survived. The cartoon-like scenes were amusing when comrades did not suffer for the spectacle.

One respondent stated that upon reflection there is “no pride in having shot anyone anymore.” He further stated that he had once taken pride in it. Five of the respondents, including all three World War II veterans, expressed some remorse that it had been necessary, one making the comment that he “was sorry that happened.” There was a correlation with age and this communicated remorse. Nine of the respondents communicated that in retrospect, there appeared no point to it. Three respondents stated that they looked back upon their experience somewhat numbly. They took no joy in it, nor did they have regrets.

Question 7) Were you scared in combat?

- a. After?**
- b. Why do you think?**

Three of respondents indicated that they were fearful in combat throughout. Most interesting is that it was the three oldest of the respondents. Nine of the respondents indicated that they were not scared in combat. The only fear they acknowledged was fear of failure or disappointing a comrade. Four of the nine, however, indicated that they

became afraid after the fact. Training and mission focus took over while the action was ongoing, but sometime after the fight, they realized the danger in which they had been and experienced a delayed onset of fear.

Question 8) Are there merits to combat?

All twelve respondents, perhaps in contrast to earlier responses, responded favorably to this question. While the underlying cause of the conflict may have been avoidable, all saw value in their experience personally. Nine stated that it clarified what was important to them. Six stated that their combat experience contributed to an improvement in the globe, even if another option may have been possible. Six indicated that they developed greater self-esteem having honorably weathered the crucible of combat. Three stated that their combat experience matured them and they felt it accelerated their passage from adolescent to adult due to the gravity of the decisions they were forced to make.

Question 9) Do you believe that others perceive you differently due to your combat experience? (Would their view be different if you lacked combat experience?)

Twelve of the respondents indicated that they believed that veterans as a collective are respected and given high status for their combat service. The perception at the individual level was not as consistent. The majority felt their status was improved by the experience of combat. However, one respondent, an *Operation enduring Freedom* veteran, indicated that due to the image of the flawed Vietnam veteran, he found many people more apprehensive around him personally; to include a job interview wherein the interviewer expressed concern about whether the veteran might have a predisposition for

violence as a consequence of his combat experience. Another respondent felt he no longer shared the same identity and indicated that he perceived others recognized it as well. He stated that old friends, those without military service, expressed both admiration and sadness for him. The respondent stated that he represented “something outside of their world view” to them. He further stated he believed that those people thought he lost something of himself and that there was “always a sadness in it.”

Question 10) How do you perceive those people who fought alongside you? What is your opinion of them?

a. **Have those views changed over time?**

Not surprisingly, eleven of the respondents held their comrades in the highest regards. The respondents indicated that they believed their comrades would be lifelong friends, even if they did not communicate for years. One respondent spoke at length about the many times he was tempted to break and take cover, but felt he had to be brave in order to reduce the chance of harm to his comrades. One respondent summed up his comrades somewhat neutrally as “just normal people who went through training.”

Question 11) How do you perceive those who you fought against? What is your opinion of them?

a. **Have those views changed over time?**

Ten of the respondents indicated that they hated their enemy in the moment – during combat. The oldest veterans had greater empathy extended to former enemies. Two of the three World War II veterans have paid respects at German war cemeteries. It is noteworthy, however, that all three World War II veterans of the European Theater of Operations expressed continued hostility toward the Japanese. The two Vietnam veterans also described their former adversaries favorably and as “no different from us.” One of

them went into detail as to the “evolution” from hating them in the moment and thinking of them as “dirty communists” to respected fellow human beings.

A 1991 Gulf War veteran responded that he never thought of the Iraqis as particularly evil, but rather “as a bunch of assholes” who had to be dealt with. One of the *Operation Enduring Freedom* veterans, perhaps with the most recent experience, stated that his adversaries were “not worthy opponents.” He described them as undisciplined and reliant upon luck rather than skill. In contrast, another Afghanistan veteran, a sniper, thought of his former foes generally as normal people caught in a bad situation.

Accordingly, he targeted leaders whenever he had the opportunity.

Question 12) What is your perception of the fallen?

- a. Friendly**
- b. Enemy**
- c. Have these views changed over time?**

All of the respondents indicated that to some extent, they viewed the fallen as heroes, and would portray them as such to their respective families. In those instances where a fallen comrade was known to them, they tended to be a bit more candid with respect to their opinion and assessment of the individual, but maintained that would diminish their image given the sacrifice made. Three of the respondents, familiar with situations in which the comrade contributed to their death through error commented to that effect, but again, stressed that they would not tarnish the memories of the fallen given that they lost their life in combat.

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