

GRAPES OF WRATH: WHY DO WE WAR? AN ATTEMPT TO UNDERSTAND THE NATURE OF CONFLICT

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Imagine, if you will, a glimpse into the nature of mankind. The time and place is more or less irrelevant. It could be in the wide open expanses of the prairies of the New World some time before Columbus voyaged across the open sea, or it could be in the humid denseness of an equatorial rainforest on some distant continent in the near present. However, what does matter is the people. So imagine a small community that is closely knit through various and sundry social norms and cultural rules. They can be farmers, pastoralists or neither, choosing instead to follow the herds like a pack of carnivores. They can be of any level of complexity, but have most likely not advanced to statehood. Now place this group where you wish and give them their defining traits because it is, after all, your vision.

It is a normal day like any other for this group. The women process hides or forage while the men sit around telling stories and making tools. Then the warning cry is heard. A neighboring group has decided to raid the community. Blood is shed and many die on both sides. The community, after a successful defense, decides to perform a retaliatory strike against the interlopers. Back and forth the raids flow like some chaotic tide in a sea filled with the blood of men, women, and children. That is the picture many paint of mankind; warlike and violent. In most cases this is true. Human beings do war, and we are violent. Yet why do we war? In the above scenario, revenge seemed to be the most likely reason for the community that was attacked, but why did the original attackers make that initial foray into this community's lands. Is it because humans are by nature ravenous, bloodthirsty creatures that seek to maim and slaughter their fellow man? Could wealth or status be a factor? Perhaps the answer is deeper, buried somewhere in the group's psyche.

For decades researchers have attempted to answer these questions. Many of these theories survive to this day in one form or another while other have lost most of their credence and have ended up in the graveyard of the obsolete. In the pages that follow, many theories will be addressed. Many of these theories may be sound while others seem to be pure lunacy. However, one must keep in mind that all these theories, sound or not, have added to the

study of war. After all, theories gain strength not by being right per se, but by not being wrong. Those odd theories may have been blind alleys, but those very same alleys must be explored in order to find the truth, assuming they are not seen as absolute dogma.

However, one cannot build a house without a foundation. Therefore, before any theory can be addressed, a few points must be explored. In any good study, before the nature of the beast can be ascertained, the beast itself must be identified. Therefore, what is war? Popular culture, as can be represented by a dictionary, defines war as "a state of usually open and armed hostile conflict between political units" (Gove 1993:2575). Yet like the infamously tenuous concept of culture, war has been defined and redefined by every researcher who has attempted to study it. Every book, compilation, or article on the subject begins with that particular author's personal definition. A few examples of the many definitions include: "armed conflict between political communities" (Otterbein 1970:3); "planned violence carried out by members of a political unit, in the name of that unit, against another" (Berndt 1964:183); "exists if the conflict is organized, and socially sanctioned and the killing is not regarded as murder" (Mead 1968:215); and "sanctioned use of lethal weapons by members of one society against members of another" (Wallace 1968:173).

The above definitions are basically the same in overall layout. One group is using hostile measures against another group in a way that is sanctioned by the governing bodies. However, there are several interesting points concerning these definitions which should be addressed. The first point to be noted is the frequency of how combat is associated with war. Warfare is more than fighting. In fact, "waging war usually involves mobilizing people, marshaling resources, and a host of other processes" (Ferguson 1984:3). In a sense, war can include everything from the formal declaration to the final treaty. It is also important to realize that combat can also occur outside of war. Not every fist fight or murder leads to war, and in most cases, the individual involved in a bar fight is not instigating a coup de grace.

Also, cold wars can occur. A cold war is basically a war that has been declared, but even though all the necessary elements are there, loss of life is avoided. From the rise of the Communist Party in Russia to its recent collapse, a cold war had been occurring between Communist Russia and the United States. Hidden from view, a secret war of wills brewed. These two governments, preferring nationalistic uses of technology and propaganda to outright warfare, managed to avoid the mutual destruction of a nuclear holocaust. Though the above example comes from a more technologically advanced society, it shows that not all wars require loss of life.

Some see war as a "continuum ranging from individual antagonistic actions to its present theoretically maximum development in nuclear holocaust" (Nettleship 1975:86). All the attacks of violence and aggression can be viewed as elements in a volatile mixture, which culminate in an explosive outbreak. Therefore, every feud, raid, and revenge killing help to compose pieces of a greater picture. However, it is imperative to keep one thing in mind when exploring this topic, and any other topic for that matter, and that is precision. Precision determines which units of measurement are to be used for a given situation or experiment. The greater the precision the more focused and smaller the range becomes. Thus, a higher precision would move from meters to millimeters and vice versa with a lower degree of precision. To the cultural anthropologist, tools such as definitions and diagrams mirror the carpenter's tools for spatial measurements or the chemist's graduated cylinder. Thus, the same rules should apply when defining cultural phenomena. Definitions should describe what is trying to be explained without being too inclusive. According to Nettleship's definition, the continuum of war can stretch from two neighbors yelling at one another and aggressive driving on a Los Angeles freeway to a full-scale military invasion. It is unbounded in that every act of aggression is an act of war, and the unbounded cannot be measured. Essentially, this definition is much too broad to be useful.

Along the same lines, Nettleship's definition also includes individual acts of violence and antagonistic display. Though the individual plays a role in warfare, it is not he who is warring, but instead, it is the community engaging itself in a conflict with another community. "War, by any definition, is a social activity, carried out by groups of people" (Ferguson 1984:5).

War, like the concept of culture, has had many definitions. Each of these definitions served their creator in his or her own way, fulfilling the needs of the study like a finely calibrated tool. However, some were not as finely crafted than others, and thus were lacking in some way, shape, or form. For the purposes of this study, we will define war as an "organized, purposeful action, directed against another group that may or may not be organized for similar action, involving the actual or potential application of lethal force" (Ferguson 1984:5). This definition is inclusive in that it allows for a continuum of lethal and non-lethal acts that can be regarded as war, but limits itself by not including individual actions. This limitation helps to streamline the definition and make it less unwieldy.

Another question that must be raised before proceeding into the realm of causes and functions of war regards the purpose of the research. Why should researchers concern themselves with the study of war? Perhaps the easiest answer to this question is that by understanding what war is and what the underlying causes of war are; one can search for a solution to the prob-

lems that much of the world faces where war is endemic. Ethical arguments about interference with cultures aside, solutions can possibly be found for areas that have been plagued with war for decades and help to end the violence. These solutions can, in turn, be used by modern nations to help make them better. Though many view wars in advanced society to be a different animal when compared to primitive war, by understanding why primitive war occurs one can use this newly acquired knowledge as an analogy or springboard for study in more complex societies. Therefore, "if the hidden stakes in modern war were laid bare ... then perhaps those who are called to kill and die will say 'no more' and demand that conflicts be addressed through instruments of peace" (Ferguson 1984:61). To find peace, we must understand war.

The sheer impact war has had on mankind throughout history forces researchers to focus on this aspect of humanity. Since the beginning of recorded history, mankind has always embroiled itself in conflict, and even before that era, archaeological research has shown evidence of violence all over the world. Unfortunately for the field, "anthropologists, sociologists, and other social scientists have largely confined their writing to deprecating war rather than attempting to understand this behavior pattern which has played such a tremendous role in human affairs" (Turney-High 1971 :xiii). Prior to World War II, war was acknowledged, but not studied. Either the areas that were studied had long been free of wars due to the presence of a colonial government or the infrequency of war did not fit in with the interests of the day. Also, the general consensus was that war was "an abnormality, as a manifestation of social pathology" (Carneiro 1994:4). Yet, whatever the reason behind the lack of past research, the anthropology of war has picked up momentum in recent times.

Though the roots of the modern theories of war stretch back to the time of the great social philosophers, this realm of study remained mostly ignored until the recent era. However, once a foothold was granted, researchers from various fields of studies added their input and the many different theoretical camps with their associated schools of thought began to form.

These camps can be more or less divided into three divisions: psychocultural, biological, and materialist. Psychocultural and biological theories are relatively self-explanatory. These areas primarily deal with theories whose main focus on the causation of war revolves around the mind and body. The mysteriously ad hoc category of materialism, on the other hand, deals with a plethora of theories that attempt to understand "war's relation to the practical problems of maintaining life and living standards" (Ferguson 1984:23). This area can include a wide variety of topics, such as economics, for example.

For the most part, these theories of war tend to be theories of human

aggression that are then extrapolated to encompass the social construct of warfare. Also, many of the theories tend towards determinism and allow for easy categorical distinction. However, caution must be taken when examining many of the other theories since the boundaries that mark divisions may not be strongly delineated, and these theories will often straddle the margins. That mentioned, this paper shall now turn our attention to these three divisions of theory in an attempt to give the reader a comfortable understanding of this area of research.

Psychocultural theories in warfare, as was noted earlier, deal with those theories that attribute mankind's destructiveness to how the brain processes various cultural realities. In other words, how individuals see their world and how they view others in that world. One can include culture patterns such as child rearing and worldview in addition to various ideas surrounding psychoanalytic tools and behaviorist analogies. As one should expect, much of the work in this area stems not from anthropology, but ultimately from the sister field of psychology. These studies in psychology, particularly in aggression, have become cornerstones in the study of warfare as understanding aggression can help researchers understand war. After all, that which drives one to commit these acts against another human can be just as pertinent as the act itself.

Some of the early works in this field revolved around behaviorism and the study of human aggression. Perhaps one of the best known of these behaviorist theories, which was created by John Dollard, examines frustration, or the internal/external blocking of wishes, and how it relates to expressions of aggression. The frustration-aggression theory, as it has become known, is rooted to one major postulate: "aggression is always a consequence of frustration" (Dollard et al 1939: 1). This resulting behavior can take many forms. It can be directed at that which is preventing the goal, or it may be displaced onto something entirely different, like another group, which can result in racism or warfare. Dollard also maintains that this aggressiveness may express itself violently or subtly (Dollard et al 1939: 27).

However, the frustration-aggression theory, as Dollard states it, contains many flaws. Researchers have shown that, even though aggression can follow frustration, it is not always the case. Individuals can learn to respond with non-aggressive reactions to a given stimulus (Berkowitz 1969:12). One possible example of this would be the passive responses that Gandhi advocated when confronted by the British forces in the mid 20th century.

Another example can be seen in apathetic responses. If an individual expects "his efforts to be thwarted, he would not anticipate getting to the goal, and his goal striving might weaken or disappear altogether" (Berkowitz

1969:13). Basically, the individual gives up since there is nothing for the individual to strive to obtain.

One final example of the inherent flaws of this theory developed after Clayton Robarchek's work amongst the Semai. The Semai see the world as filled with malignant spirits who would attempt to do harm to an individual given the opportunity. When a Semai's requests are not met or when promises are not kept, the individual's response is not that of anger or aggression. Instead, the Semai feels afraid because his culture has taught him that this emotional arousal leads to a weakened state, allowing evil spirits a foothold to do harm through sickness or ill luck (Robarchek 1977:766,775).

The flaws in the foundation of this theory may be also seen when one understands that not every aggression is the result of a frustration. Studies in the behavior of children show that a child will fight with another child over a toy that the second child has in possession. In this case, it seems that a self perceived notion of deprivation is the cause of the aggressive attitude and not frustrated attempts at obtaining the toy (Berkowitz 1980:120). On a much grander scale, one can also observe aggressive actions erupting due to a matter of policy passed down from the leaders of a group to the subordinates. "During World War II .. , many of our airmen participated in bombing raids against German and Japanese cities without feeling the slightest anger towards their civilian victims" (Berkowitz 1980:121). Basically, the soldier's duty was to fight the nations which his country had proclaimed as enemies. Though the notion of instinctual interplay, blocked wishes, and psychoanalytic devices, such as displacement and projection, permeate psychocultural theories of war and aggression, this area contains another facet that is extremely important; that of social learning. This notion maintains that mankind is not a slave to these drives nor his biological make-up. Humankind is neither good nor bad but is "capable of developing in either direction depending on what he is compelled to learn by his environment and by his culture" (May 1964: 151). Societies that find life happier and more rewarding through conflict will be more inclined to be aggressive. In this case, it seems to be a matter of choice. The society basically came to a general consensus and has taught the following generations that that is how life will be in the society.

Evidence supporting these conscious decisions about warfare comes from work amongst the historically violent Waorani in South America. For ages, the Waorani brutally attacked and killed outsiders and members of other villages. Men, women, and children died during raids because the raiders did not want present or future retaliation. However, "when the first missionaries appeared as mediators between hostile groups, most Waorani were surprisingly willing to cease raiding once they were convinced that the other

groups would do the same" (Robarchek and Robarchek 1992: 205). A conscious decision was made to end the violence. Since peace can come into being through choice, would it not be reasonable to assume that a society could choose to become aggressive and warlike given that their worldview allows this mindset?

Many of the proponents of this theory of learned aggression address an interesting point in regards to instinctive behavior. They maintain that, even though man and animal share common threads such as a degree of preprogramming in the form of instincts and the ability to learn, mankind's evolutionary tract was much different. The higher one travels up the evolutionary scale, less and less innate responses are observable. These responses are replaced with an "increase in learning capacity accompanied by an increase in the length of period of dependency" (May 1964:153). In other words, at some point in the evolutionary history, culture surpassed instinctual preprogramming in level of importance. This paradigm shift resulted in an increase in fetal dependency, since the infant requires more time to absorb the wealth of cultural knowledge. During this time, the child learns the society's norms and how to best function in that world. It is during these times that hostile behavior is learned by observation of the society's adults.

Carrying this notion a step further, the sister field of anthropology used psychological theorems to delve into the relationship of culture and personality. Anthropologist Ruth Benedict, one of the largest proponents of this aspect, explored this aspect of human development and arrived at the theory of cultural configurations. Essentially, Benedict maintains that these configurations determine that culture's personality type. In a sense, human beings are products of their culture. Though not specifically a theory on the origins of war, Benedict's work has merit in that it gives templates to compare between and models to test the theories of war.

The careful study of primitive societies is important today rather, as we have said, because they provide case material for the study of cultural forms and processes. They help us to differentiate between those responses that are specific to local cultural types and those that are general to mankind. Beyond this, they help gauge and understand the immensely important role of culturally conditioned behavior.

(Benedict 1946: 18)

On the other end of the spectrum from the psychocultural causation of warfare, one will find those theories that endeavor to explain war as a more

biologically oriented activity. These theories range from those with an innatist, genetic bend to those that revolve around a more evolutionary model where inclusive fitness is the key. Though tending to have a more biological attitude, it is plausible to add certain psychological, especially behavioral, and some psychoanalytical models under this division of war theory.

One such theory, developed by Konrad Lorenz, which uses countless examples of animal behavior and freely applies them to human beings, is known as the drive-discharge theory. Lorenz not only sees aggression as a useful mechanism for the defense of offspring, self-preservation, and creation of social solidarity through establishing a hierarchy of dominance, but he also believes that aggression is a means to create stimulus for reduction in stress. According to this theory, an individual at rest accumulates tension. This stress agitates the individual into a state of unrest, and some form of activity is sought that will release this strain. "In the simplest cases, this 'search' consists only in an increase of random locomotion .. in the most complicated it may include the highest achievements of learning and insight" (Lorenz 1963:53).

The notion of high levels of achievement as a possible outcome, however, seems highly idealized. More often than not, this impulse tends to lead mankind down a destructive path. Perhaps the best example that Lorenz uses in regards to this is a hypothetical scenario in which an unbiased interplanetary visitor observes mankind and prophesies our destruction after noting the uncontrollable aggressive drive that we possess and the capability of a nuclear holocaust in our hands (Lorenz 1963 :49).

The Father of Psychoanalysis, Sigmund Freud, developed a similar theory in the early 20th century. Freud saw that between members of a group "violent compulsion and ties of sentiment" were key in social cohesion (Freud 1964: 75). In other words, by projecting an "us against them notion" onto a group outside of the society, the society held together.

However, the theory delves deeper into mankind's psyche. Freud identifies two kinds of human instincts, which were more or less polar oppositions of one another. On one hand, mankind possessed instincts that create and fortify, and on the other end of the spectrum were instincts for destruction. These instincts, rarely pure, usually contain a kernel of the opposite instinct. For example, " the instinct of self-preservation is certainly of an erotic nature, but to gain its ends this very instinct necessitates aggressive action" (Freud 1964:76).

This instinct interplay is important in understanding Freud's theory of the "death instinct". The "death instinct" acts as a state of instinctual entropy. It pushes us forward into oblivion. In order to combat this, the body redirects the action outwardly. Thus, "the living being ... defends its own existence by

destroying foreign bodies" (Freud 1964:77). Freud attempts to trace this instinct back to its origins and explains that, as the human conscience was evolving, an internalization of aggressiveness was required. However, over time, pressure builds from this internalization. This destructive instinct acts as a pressure valve, which returns the body to a stable level. Controlling this pressure and redirecting it, consequentially enough, was Freud's solution to warfare (Freud 1964:77).

Though Freud and Lorenz are of the psychological mindset, it is not unfounded to place their theories amongst those of a more biological stance. Two reasons account for this placement. First of all, the death drive and drive-discharge theories insist upon an innateness of these aggressive tendencies. Both Freud and Lorenz trace roots back to our primitive ancestors. According to these theories, it appears that mankind's aggressive nature functioned as an internal stress control system, and like the aggressive traits of certain animals, a propensity for violence was selected for. However, these tendencies were repressed, as if the advent of culture deemed this nature unsatisfactory, but like many repressed feelings and emotions, aggression eventually built up to a point where release was necessary for the individual's survival. Interestingly enough, this notion of "survival of the meanest" runs through many current biological theories of war. Aggressive actions also help to maintain species survival in that defense of the young is imperative. Through successful defense of the young, the species survival was ensured.

The second reason for Freud and Lorenz's placement amongst biological theorists has to do with an individual's control over what will occur. Basically, these theories imply a predisposition for aggression. In these theories, it appears that "our ancestors have bred pugnacity into bone and marrow, and thousands of years of peace won't breed it out of us" (James 1964:24).

Why, then, is the frustration-aggression theory mentioned above not placed with Freud and Lorenz? It appears to be based on instincts just as much as the death drive and drive-discharge theory and does not appear to be controllable. The answer is simple. As was stated above, many theories straddle the boundaries of these groups. The frustration-aggression theory is one such theory. However, placement was not as arbitrary as one would believe. Instead, it was based off a single criterion. Freud and Lorenz's theories imply that, without these mechanisms, something will happen to the individual. In the case of the death drive theory, the individual will die due to his own self destructive tendencies. For Lorenz, these aggressive tendencies help to maintain the species through defense of young and self-preservation. The frustration-aggression theory does not appear to have a survival clause. As was explained, certain stimuli cause certain reactions, and some reactions can be

learned. Therefore, in the frustration-aggression model, aggression is not necessary for survival for the individual in most cases, unlike Lorenz and Freud's theories, which propose an unlearned response required for survival.

The remainder of the biological theories do not have this problem of placement. Notions of inclusive fitness and genetic predisposition fit firmly within the realm of the biological. Perhaps the most well known area in this division is that of sociobiology. Sociobiologist's turn to the gene as the vehicle of cultural expressions. Researchers in this area attempt to achieve two goals in their theories. "The first of these seeks to explain the recurrence of certain universal or near universal traits as the consequence of a genetically programmed human nature; the second seeks to explain cultural variations as a consequence of a genetically programmed 'scale' of alternatives which are allegedly turned on and off by environmental 'switches'" (Harris 1979:126). Though sociobiologists definitely create some food for thought with their theories, one must be careful not to get too wrapped up in the charms of oversimplification and reductionism. Ashley Montagu once wrote:

A besetting sin of sociobiologists is that they are prone to start out with the assumption that they are going to find hereditary bases for the social behavior they observe, and invariably succeed, by analogy or extrapolation or misinterpretation, in confirming their anticipated findings. I think there can be not the slightest doubt that a good deal of human social behavior has a genetic basis, but that is a very different thing from claiming that such behavior is genetically determined.

(Montagu 1980:6)

Recent studies that examine the relationship between genetics, environment, and twins have found that environment does play a significant role in the eventual behavior of an individual (Eichelman et al 1981: 70). Though this is a major stumbling block in the area of sociobiology, it helps serve as a caution sign against reductionism. Oversimplification can be just as great a sin as overgeneralization. With this in mind, let us turn to an example of how sociobiologists attempted to explain one of the near universals in human society.

Napoleon Chagnon, from his work with the Yanomamo, formulated one of the better known sociobiological theories of warfare. By examining demographic data, Chagnon was able to draw a correlation between reproductive potential and violent Yanomamo males. He attempted to show that "men who have killed have more wives and offspring than men who have not killed" (Chagnon 1988:985). His data does appear to show that this connec-

tion exists amongst the Yanomamo (Chagnon 1988: Table 2). However, Chagnon admits five problems that may underlie the data and attempts to show reasons as to how these problems can be explained away. First, there may be a disproportionate amount of violent males from certain descent groups. However, his data shows that the three largest groups, which contains 49.4% of the populations', only contains 48.9% of the males that frequently kill on raids, or the *unokai* (Chagnon 1988:989). Another problem that one may raise is that perhaps many died while trying to attain this level of status and the apparent reproductive success of the survivors is due to this high mortality rate. Once again, Chagnon's data set does not show this, or that most deaths in raids are of *non-unokais* (Chagnon 1988:990). A third question that may be raised about this study surrounds biological attribution. Perhaps the *unokai* possess certain characteristics that *non-unokais* do not possess, like better agility or concealment abilities (Chagnon 1988:990). Possession of superhuman abilities is preposterous in its own right, and Chagnon affirms that the two groups can not be distinguished from one another. A fourth issue Chagnon attempts to disprove relates to deterrence. Perhaps a higher level of violence dissuades other groups from attacking, and thus making their kin safe (Chagnon 1988: 990). However, the data in this study shows that the constant fissioning of villages separates kin. One *unokai* cannot be everywhere at once. Finally, Chagnon examines the correlation between cultural success and biological success. If the culture demands violence, then those who are violent will be more appealing in the eyes of potential mates (Chagnon 1988:990). Women and men utilize different tactics to find mates and perhaps these aggressive males are viewed as good protectors. Thus, they would appear more attractive to females in that he can protect her and the children much more effectively than nonaggressive males.

Though Chagnon's notion of inclusive fitness as being the key to aggression and warfare in primitive societies appears to fit with the Yanomamo, there are several cases in which this theory does not appear to hold water. Possibly the best-documented example comes from research conducted amongst the previously mentioned Waorani. Data collected among the Waorani, at first glance, appears to support Chagnon's theory. However, a deeper, more in-depth assessment yielded information that was not consistent with the Yanomamo model. Though killers tended to have more children at first glance, a longitudinal study has shown that, over time, the nonkillers had more children in general (Robarchek and Roharchek 1998: table 8.3). Also, a correlation appears to have been found between the number of killings one participated in and the fates of the wives of these killers. The more one participated in raids and killings, the more likely that his group would be attacked in retaliation, and since men, women, and children died in raids, there

was a higher likelihood that the killer's family would have fatalities (Robarchek and Robarchek 1998: table 8.7). "Just as was the case with the number of children sired, the number of a man's wives was also a function of his longevity, given that his reproductive life was lived in the context of this warfare complex" (Robarchek and Robarchek 1998: 134).

The final area of theory for discussion is the realm of the materialism. Under this heading, one finds theories that encompass the political, economic, and cultural arenas of social interaction. The materialist attempts to understand how people interact with their surroundings and how this interaction relates to war. Researchers in this area of the field make use of the notion of positive functions in order to express this interaction. Positive functions are the "underlying material rationality in seemingly irrational or destructive behavior patterns" (Ferguson 1984: 28). This understanding is the basis for cultural ecology, perhaps the largest sections in modern materialist thought. Competition is another theme that forms a portion of the foundation in the cultural ecologist's model. This is mostly because the figureheads of this school of thought have ties to such scholars as White and various others with a more Marxian bend to their theories of society.

Cultural ecological models are as numerous as blades of grass. Therefore, only a few may be reviewed, but these few should provide sufficient background for the purposes of this topic. One area that cultural ecologists have examined is that of food consumption and depletion of resources. Backed by numerous references to state-of-the-art papers, Marvin Harris attempts to prove that South American groups, particularly the Yanomamo, are intensely warlike due to a protein deficient environment. Harris maintains that "warfare is supposed to prevent general nutritional catastrophes and thereby maintain favorable levels of health and well-being under given infrastructural conditions" (Harris 1984: 119). In his view, five mechanisms ease human adaptation into such harsh surroundings.

- 1: Maintenance of small settlements
 - 2: Dispersion of settlements
 - 3: Maintenance of 'no man's lands' that allow for a species population to reach optimal levels once more
 - 4: Frequent movement of settlements
 - 5: Low population growth maintained by such cultural constructs as infanticide
- (Gross 1975: 534-535)

Perhaps the statement that best sums up Harris' theory states that "the preponderance of evidence strongly supports the view that tropical forest fauna are a fragile resource, readily depleted with consequent adverse cost

and benefits and/or a decline in per capita high-quality food consumption brought on by village growth" (Harris 1984: 126). As adamant as this statement sounds, the research receives a major blow from a study that has punctured many a theory so far in this paper. The Waorani share an environment similar to that of the Yanomamo. The Waorani have maintained a level of nourishment that far exceeds the minimum daily requirement and yet less than a week's worth of time is spent each month to maintain this level. Diet is supplemented with various reptiles and fish in addition to such plants as manioc and plantains (Robarchek and Robarchek 1998: 129). Therefore, in this instance, dietary deficiency is not a factor for war amongst an excessively violent people.

In addition to the Waorani, there appears to be evidence amongst the Dani of New Guinea that adds more to discrediting Harris' theory. The Dani live in a rather temperate area in the Highlands of New Guinea. The majority of their diet consists of pork and sweet potato, with some 90% of that diet leaning towards sweet potato (Heider 1997:36). The main source of protein comes from pigs that are raised. These farm animals are extremely efficient in terms of energy because they convert carbohydrates to protein, and unlike the pigs of many groups; the Dani's pigs live almost exclusively off of waste (Heider 1997:38). The Dani do go to war, and it is often because of pig theft. However, the lethality of these conflicts is rather low. Wounds are taken and some do die, but the tactics employed seem to suggest that wholesale slaughter is not the key. Arrows are unfletched and not shot in volleys. Thus, anyone who is paying attention can easily move to one side to avoid a projectile. During the combat, a "tremendous amount of shouting, whooping, and joking" takes place, and by mid afternoon, everyone begins to head home, tired (Heider 1997: 109). In the case of the Dani, it appears conflict serves to end arguments, revenge and as something to do. There are no predatory animals and no large game to hunt. The only thing left for the typical Dani is taking care of his crops. The skirmishes seem to act as means of entertainment. Thus, when one looks at the Dani, it is not competition or lack of protein but an outlet for boredom.

A second theory developed by cultural ecologists stem from the work of Leslie White. White theorized that in order for a society to grow it must efficiently harness energy. "Indeed it is not too much to say that energy is to a nation what food is to a person" (Carneiro 1994:22). The more efficient a -society procures and uses energy, the more it advances in complexity. Unfortunately, due to the differential placement of resources and the finite amount of these resources, societies must compete in order to maintain its level of complexity. An excellent example can be seen in the recent conflict in the Persian Gulf. The main reason behind that skirmish was over fuel. Iraq was

they work with. After all, every group is different, and it appears that what is good for the goose is not necessarily good for the gander, as was shown

threatening a valuable commodity on which the Western world was very dependent (Carneiro 1994:22).

One final study to be addressed was undertaken by cultural ecologists involving Plains Indian warfare. Originally seen as strictly serving an economic function in Native American society, this practice has received a theoretical facelift in the relatively recent past. The logic behind the new theory is rather interesting. Basically, competition of resources in this case is the result of the behavior of the resource. Buffalo are migratory beasts, traveling across the plains in search of fertile grazing pastures. Unfortunately, due to the erratic nature of the buffalo, it is hard to pinpoint the location of these herds. However, once the herds were found, the nature of the competition becomes obvious.

When a buffalo realizes the proximity of the hunters, they will start to stampede, and since they have greater endurance, the buffalo will outpace the mounted hunter. The group has to worry about not only startling the herd themselves, but they must be wary of rival groups taking their quarry. Since rules are set to deny the solitary hunter access, the tribe rarely has to worry about a member ruining the hunt. If another tribe makes a presence and a state of war exists, cooperation is forbidden and therefore, elimination of this group becomes paramount (Biolsi 1984: 161).

As one can see, the theories and viewpoints surrounding the study of war are extremely diverse, ranging from ideas that include the mind, physiology and social aspects of humanity. Genetics, psychology, and anthropology mingled, if only for a brief moment, to synthesize data and create these theories. The information presented is merely the tip of the iceberg. Countless volumes of works dating back decades in several fields still remain. The object of this work was to give the reader a starting point and to try to present the material in an easy to understand manner. Writers can be prolific and often times, verbose. Sometimes the data must be consolidated and the theories sifted through to find the basic underlying theme.

However, the journey is not yet over. One more question must be asked before the curtain falls. A definition of war was given, as was some theories on causation, but one must ask about the end product. What happens to a society when the dust settles? What is war's impact on society?

One long held theory has been that "states arise through some form of interpolity violence" (Cohen 1984:330). Basically, one society absorbs another into itself, incorporating new genetic stock, in the form of the subjugated society, and access to resources. Historical evidence has shown that in some cases this is true. The Roman Empire, for example, started from a very small group and grew until it encompassed much of the known world at the

time. According to Carneiro, warfare original was used to drive away groups that were in competition, as one can see with the example of the Plains Indians above. However, there came a point when "warfare began to lead, not of the dispersal of defeated villages, but to their subjection and incorporation" (Carneiro 1994: 14). This aggregation was necessary for the growth and development of complex societies and the arts and sciences that accompanied them.

Warfare also seems to have an effect on human biology. In a way, warfare acts as an evolutionary agent. Correlations to body size and endemic warfare have shown that places with a high amount of warfare tend to have larger individuals. Assuming all the males of the group engage in the conflict, the smaller, weaker males are weeded out in combat, leaving the males more suited for battle behind to continue fathering offspring (Livingstone 1968: 10-11). However, in the modern era and in complex societies, this trend is not seen due to the advanced technology. Basically, a gun allows anyone, regardless of genetic disposition, to kill another, and weapons of mass destruction are much more random (Thieme 1968: 16).

One final result of war goes hand in hand with the aggregation of societies to form larger societies. Warfare is often a catalyst in social differentiation and integration. As a society wars, a symbiotic relationship begins to form. "War favors incremental elaboration of many measures of sociocultural evolution, and war helps maintain these once they develop" (Ferguson 1994: 102). These areas of elaboration include:

- 1: trend to larger more sedentary societies
- 2: intensification of modes of production
- 3: increase in authoritative role of leaders
- 4: political cooperation
- 5: higher structure in intergroup trade relations
- 6: elaboration of social relations
- 7: intermarriage
- 8: institutional unification

(Ferguson 1994:102)

As one can see, war is much more than two or more groups fighting a bitter conflict. In fact, it is an intensely complex social construction that has perplexed researchers for decades. This has led to immense debates and bitter rivalries. Philosophical camps were created, with their own views and theories, for the sole purpose of trying to find the One True Answer. Is that answer out there for us to find? Will some upstart rock the establishment with his or her universal theory on the causes of war? Researchers can only speculate and attempt to arrive at an answer that is nearest the truth for the society

many times in the preceding text.

Researchers are like explorers searching for a Lost Continent. Each bit of information found mirrors the stars guiding the explorer's path, and every researcher will find his Pole Star to guide him, be it in the realm of the mind and body or in the intricacies of social interaction. This star will take them to a distant shore, and the researcher will claim that land in the name of the camp which he shares allegiance. Yet often enough, that discovered region is merely a different coast of the same land. Through different paths, the same result was discovered. This is how the realm of theory works. In life, there are rarely absolutes and single causes and not everyone can find his own Lost Continent. Many have yet to understand that their theory is not the gemstone, but merely only a facet. Therefore, only by realizing this can researchers hope to map those far shores and achieve a complete understanding of that noble species, Homo sapiens.

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