Chapter 20

The Myth of Man the Hunter/Man the Killer and the Evolution of Human Morality

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The Earliest Hominids as Hunters

With the development of the theory of evolution, Darwin put humans in their place with the rest of the animal kingdom, subject to the same laws of nature. However, in so doing, even Darwin visualized a spiritual and intellectual gap between humans and their closest ancestors and relatives. As he stated: "There can be no doubt that the difference between the mind of the lowest man and that of the highest animal is immense" (Darwin 1874).

Late nineteenth century theorists took this gap to heart and looked for early human fossils that fit this expectation. Sir Arthur Keith (1949) went so far as to set up a brain volume threshold of 750 cc between man and the apes.

It is no wonder that the Piltdown Man, with its ape-like jaw and large cranium, was immediately accepted as the earliest hominid ancestor, while the small skulled, ape-like australopithecine discovered in 1924 by Raymond Dart was considered a pathological specimen or a mere ape. While Piltdown supporters were busy explaining the intellectual endowments of our large-brained ancestors, Dart was convinced his small-brained creature was the first ape-man, and he developed a theoretical picture of the behavior of this transitional form. At first, Dart (1926) believed that australopithecines were scavengers barely eking out an existence in the harsh savannah environment; a primate that did not live to kill large animals, but scavenged small animals in order to live.

Few cared what Dart believed, however, because few took his ape-man seriously. In fact, it was not until a quarter of a century later, with the unearthing of many more australopithecines and the discovery in 1953 that Piltdown was a fraud, that students of human evolution realized our earliest ancestors indeed were more ape-like than they were like modern humans. This led to a great interest in using primates to understand human evolution and the evolutionary basis of human nature (Sussman in press). With these discoveries began a long list of theories attempting to recreate the behavior and often the basic morality of the earliest hominids.

By 1950, Dart developed a different view. Given the game animals with which they were associated and some dents and holes in the skulls of the australopithecines, Dart became convinced that the mammals had been killed, butchered, and eaten by the ape-men, and that these early hominids had even been killing one another. He stated:

> The ancestors of *Australopithecus* left their fellows in the trees of Central Africa through a spirit of adventure and the more attractive fleshy food that lay in the vast savannahs of the southern plains. (Dart and Craig 1959:195)

Rather than leaving the trees to search out a meager existence in the savannah, Dart now saw that hunting, and a carnivorous lust for blood, drew the man-apes out of the forest and was a main force in human evolution.

Dart's view of human evolution was not devoid of moral judgment. In fact, with their innovative subsistence pattern, Dart believed that the earliest hominids also created a new moral code. The hunting hypothesis, as it is referred to by Cartmill (1997:511) "was linked from the beginning with a bleak, pessimistic view of human beings and their ancestors as instinctively bloodthirsty and aggressive." Dart claimed the australopithecines were

> confirmed killers: carnivorous creatures that seized living quarries by violence, battered them to death, tore

This is a shortened version of a paper to appear in *Zygone, Journal of Religion & Science* (in press).

> apart their broken bodies, (and) dismembered them limb from limb, greedily devouring livid writhing flesh. . . . The loathsome cruelty of mankind to man is explicable only in terms of man's carnivorous and cannibalistic origin. . . . this mark of Cain separates man dietetically from his anthropoidal relatives and allies him with the deadliest of carnivores. (1953:209)

Dart's vision of early human morality, however, is not new in Western myth, religion and philosophy. Cartmill (1993), in his recent book *A View to a Death in the Morning,* shows that it is reminiscent of the earlier Greek and Christian views of human morality. Dart himself began his 1953 paper with a quote from the seventeenth-century Calvinist divine Richard Baxter: "of all the beasts the man-beast is the worst, / to others and himself the cruellest foe." In 1773, James Burnet introduced the "Man the Hunter" theme, arguing "that when necessity forced man to hunt, the wild beast part of him became predominant, war succeeding hunting, and he became fiercer than any other animal—when not subdued by laws and manners" (quoted in Bock 1980:202). As Cartmill states, the early Christian philosophers believed that:

> We human beings are free . . . to choose what is unnatural for us. It follows from this that only human beings have the capacity to be corrupted. Most ancient philosophers assumed that whatever is natural is good. Since animals always do what is natural for them but people do not, animals are better than people in this regard. . . . The idea that the other animals are by their nature better and saner than man is essentially a modern idea. It commingles classical animalitarianism with a distinctively Christian belief—the doctrine that in human beings nature herself has gone rotten. (1993:45)

This view of the depravity of human nature is related to the idea of man's fall from grace and of the Christian notion of original sin. As we shall see, these medieval myths still pervade many modern "scientific" interpretations of the evolution of human behavior and of human nature and morality.

Dart's evidence for Man the Hunter was not good and his particular vision of the human hunter/killer hypothesis did not have much staying power. Upon examination of the evidence, C. K. Brain (1981) noted that the bones associated with the man-apes were exactly like fragments left by leopards and hyenas. The round holes and dents in the fossil skulls matched perfectly with fangs of leopards and with impressions of rocks pressing against the buried fossils. It seems that the australopithecines were likely the hunted and not the hunters.

Man the Hunter or Man the Dancer?

The next widely accepted version of this recurring Man the Hunter theme was presented in the late 1960s by Sherwood Washburn and his colleagues. They claimed that many of the features that define MEN as hunters again separated the earliest humans from their primate relatives.

> To assert the biological unity of mankind is to affirm the importance of the hunting way of life. It is to claim that, however much conditions and customs may have varied locally, the main selection pressures that forged the species were the same. The biology, psychology, and customs that separate us from the apes—all these we owe to the hunters of time past. And, for those who would understand the origin and nature of human behavior there is no choice but to try to understand "Man the Hunter." (Washburn and Lancaster 1968:303).

Like Dart, Washburn related human hunting to human morality, both of which had their biological basis in our evolutionary past.

> Man takes pleasure in hunting other animals. Unless careful training has hidden the natural drives, men enjoy the chase and the kill. In most cultures torture and suffering are made public spectacles for the enjoyment of all. . . . carnivorous curiosity and aggression have been added to the inquisitive and dominance striving of the ape. This carnivorous psychology may have had its beginnings in the depredations of the australopithecines. (Washburn and Avis 1958:433–434)

Again much like Dart before him, Washburn did not amass a large amount of evidence to support his theory. Rather, he relied upon a nineteenth century anthropological concept of cultural "survivals" (Tylor 1871); behaviors that are no longer useful in society but that persist and are pervasive are survivals from a time when they were adaptive.

> Men enjoy hunting and killing, and these activities are continued in sports even when they are no longer economically necessary. If a behavior is important to the survival of a species (as hunting was for man throughout most of human history), then it must be both easily learned and pleasurable. (Washburn and Lancaster 1968:299)

Using a similar logic, I have developed an alternative, but no less feasible, theory—Man the Dancer. After all, men *and* women love to dance, it is a behavior found in all cultures and has less obvious function in most cultures than does hunting.

Although it takes two to tango, a variety of forms of social systems could develop from various forms of dance: square dancing, line dancing, riverdance, or the funky chicken. The footsteps at Laetoli might not represent two individuals going out for a hunt, but the Afarensis shuffle, one of the earliest dances. In the movie 2001, it was wrong to depict the first tool as a weapon. It could easily have been a drumstick, and the first battle may not have involved killing at all but a battle of the bands. Other things such as face-to-face sex, coopera-

tion, language and singing, and bipedalism (it's difficult to dance on all fours), even moving out of the trees and onto the ground might all be better explained by our propensity to dance than by our desire to hunt. Although I am being facetious, using the cultural survival approach, the evidence for dancing is certainly as good as that for hunting.

Between 1961 and 1976, the playwright Robert Ardrey popularized the then current version of the Man the Hunter/Man the Killer myth with a number of popular books. He believed that it was the competitive spirit, as acted out in warfare, that made humans what they are today "... the mentality of the single Germanic tribe under Hitler differed in no way from that of early man or late baboon"(Ardrey 1961:171). Because of a lack of a competitive, territorial instinct, Ardrey believed, gorillas had lost the will to live and with it the drive for sex. He argued that gorillas defend no territory and copulate rarely. And their story "will end, one day, not with a bang but with a whimper" (p. 325). To Ardrey, it is war and the instinct for territory that led to the great accomplishments of Western Man.

> How can we get along without war? It is the only question pertaining to the future that bears the faintest reality in our times; for if we fail to get along without war, then our future will be as remarkably lacking in human problems as it will be remarkably lacking in men. . . . Do you care about freedom? Dreams may have inspired it, and wishes promoted it, but only war and weapons have made it yours. (Ardrey 1961:324)

Although more spectacular than the claims of contemporary scientists, Ardrey's views of human nature did not differ greatly from them, nor from the ancient Christian beliefs of man's fall from grace and original sin. To Ardrey (1961), however, sin is good.

> We are Cain's children. The union of the enlarging brain and the carnivorous way produced man as a genetic possibility (315). . . . Man is a predator whose natural instinct is to kill with a weapon (316). . . . If man is unique, and his soul some special creation, and his future is to be determined by his innate goodness, nobility, and wisdom, then he is finished. But if man is not unique, and a proud creature bearing in his genes the scars of the ages, then man has a future beyond the stormiest contradiction (326).

The Hunter Myth and Sociobiology

This might be considered the beginning of what has been called evolutionary ethics (Ruse 1994), which was developed with the next major scientific statement on the importance of hunting in the formulation of human nature. This theory was introduced in the mid 1970s by E. O. Wilson and the proponents of sociobiology. Wilson (1975) describes a number of behavioral traits that he claims are found in humans generally and are genetically based human universals. These include: territoriality, aggressive dominance hierarchies, permanent male-female bonds, male dominance over females, extended maternal care, and matrilineality.

The argument Wilson uses to support his idea that these traits are biologically fixed, genetically based characteristics is their relative constancy among our primate relatives and their persistence throughout human evolution and in human societies, generally. Elsewhere, I have provided evidence that these behavioral characteristics are neither general primate traits nor human universals (Sussman 1995, reprinted in this volume). Again, these traits were believed to be a product of our hunting past.

> For at least a million years—probably more—Man engaged in a hunting-gathering way of life, giving up the practice a mere 10,000 years ago. We can be sure that our innate social responses have been fashioned largely through this lifestyle. (Wilson 1976; reprinted in Sussman 1997:65–66).

Social Darwinism proclaimed that human morality should be based on the evolutionary process of the survival of the fittest (Ruse and Wilson 1985). Individuals, ethnic groups, races, or societies that were most fit would survive and those that were weak would be eliminated, and this was good! Competition, especially winning in competition, was the basis of human ethics and morality. Herbert Spencer, the father of Social Darwinism, argued that we should cherish the evolutionary process so that the fittest would be able to survive and the inadequate would be rigorously eliminated. This, of course, is reminiscent of Ardrey's proclamations.

Sociobiologists do not find fault with the fact that Social Darwinists linked evolution to ethics but simply that, when this theory was popular, the mechanisms of evolution were poorly understood. As stated by Ruse and Wilson (1985:50): "Recent advances in evolutionary theory have cast a new light on the matter, giving substance to the dreams of the old theorists."

Given sociobiological tenets, the claim was that we now can proceed from "known facts," rather than mere theory, to ethics. These facts are basically: (1) The goal of living organisms is to pass on one's own genes at the expense of all others; (2) an organism should only cooperate with others if (a) they carry some of his or her own genes (kin selection), or (b) if at some later date the "others" might aid you (reciprocal altruism). However, since animals cannot make these calculations, evolution has endowed our genes with a moral ethic to reciprocate because, ultimately, this may help us perpetuate and multiply our own genes. As explained by Ruse and Wilson:

> It used to be thought, in the bad old days of Social Darwinism when evolution was poorly understood, that life

> is an uninterrupted struggle—"nature red in tooth and claw." But this is only one side of natural selection, the same process also leads to altruism and reciprocity. Morality is merely an adaptation put in place to further our reproductive ends. . . . Ethical codes work because they drive us to go against our selfish day-to-day impulses in favor of long-term *group survival* . . . and thus, over our lifetimes, the multiplication of our genes many times. [emphasis mine] (1985:50–52)

Following this logic, evolutionary morality ultimately has allowed us to build group cohesion *in order to* successfully compete with strangers, and thus pass on our genes. We should not look down upon our warlike, cruel nature but rather understand that it has led to success, in an evolutionary sense, when coupled with "making nice" with some, but not with other individuals or groups of individuals. The "making nice" part is genetically driven and the basis of human morality. As Wilson (1975) states:

> Throughout recorded history the conduct of war has been common (572) . . . some of the "noblest" traits of mankind, including team play, altruism, patriotism, bravery on the field of battle, and so forth, are the genetic product of warfare (573) . . . If the planned society were to deliberately steer its members past those stresses and conflicts that once gave the destructive phenotypes their Darwinian edge, the other phenotypes might dwindle with them. In this, the ultimate genetic sense, social control would rob man of his humanity (575).

Or as more recently stated by Ruse:

> Where kin selection fails, reciprocal altruism provides a back-up. But as one grows more distant in one's social relationship, one would expect the feeling to decline . . . it is silly to pretend that our dealings across countries are going to be intimate or driven by much beyond self-interest. . . . Jesus did not suggest that the Samaritan was in the general business of charity to strangers. (1994:102)

This sounds very much like the claims of Dart and Ardrey, and the Social Darwinists before them. Furthermore, the scientific evidence for human universal traits or for the sociobiological tenets is just as weak as was the evidence provided by Ardrey and Dart to support their theories of human morality.

And how do these theories relate to the western European, Christian system and views of morality? Ruse explains:

> If you complain to me that this all starts to sound like warmed-over Christianity, I shall agree again, "Love your neighbor as yourself" sounds like a pretty good guide to life to me, and I gather it also does to many other people in non-Christian cultures. . . . a major reason why Christianity was such a raging success. (1994:100–101)

But we must always ask: Are the Christian morals professed generated by the scientific evidence for biologically based morality, or do we think they are biological universals *because* they happen to fit our own Christian ethics? Ruse (1995:106) states: "I am not much of a relativist. I condemn as strongly as anyone the rapes in Yugoslavia and the atrocities of Hitler . . ." But morality is usually in the eyes of the beholder, and I am sure that Ruse's code of ethics is not the same as that of the Yugoslavs and of Hitler's troops (mainly Christians) who committed these offenses.

Chimpanzee and Human Males as Demonic Killers

The newest claim of the importance of killing and the biological basis of morality is that of Richard Wrangham and Dale Peterson in their new book, *Demonic Males*. They argue that, twenty to twenty five years ago, we thought human aggression was unique. Research on the great apes had revealed that they were basically unaggressive, gentle creatures and also that the separation of humans from our ape ancestors occurred 15 to 20 mya.

Although earlier theorists proposed that hunting, killing, and extreme aggressive behavior were biological traits inherited from our earliest hunting, hominid ancestors, many anthropologists still believed that patterns of aggression were environmentally and culturally determined, learned behaviors. Our sins were thought by most to be acquired and not inherited characteristics. They were not original (our sins, that is). Wrangham and Peterson argue that new evidence indicates that killer instincts are not unique to humans—we share this characteristic with our nearest relative, the common chimpanzee. In fact, it is this inherited propensity for killing that allows hominids and chimps to be such good hunters.

Wrangham's and Peterson's theory is as follows: The split between humans and common chimpanzees is much more recent than was once believed, only 6 to 8 mya. Furthermore, humans may have split from the chimpanzee-bonobo line after gorillas, with bonobos (or pygmy chimpanzees) separating from chimps only 2.5 mya. Because chimpanzees may be the common ancestor of all these forms, and because the earliest australopithecine was quite chimpanzee-like, Wrangham (in the previous article) speculates that: "The most reasonable view for the moment is that chimpanzees are a conservative species and an amazingly good model for the ancestor of hominids. . . . (and) If we know what our ancestor looked like, naturally we get clues about how it behaved . . . that is, like modern-day chimpanzees"(Wrangham 1995:5). Finally, if modern chimpanzees and modern humans share certain behavioral traits, these traits have "long evolutionary roots" and are likely to be fixed, bio-

logically inherited components of our nature and not culturally determined.

Wrangham (1995:6) goes on by illustrating a number of traits shared by early hominids and chimpanzees, and states that this is a "strange paradox: a species trembling on the verge of hominization, but so conservative that it has stayed on that edge." Chimpanzees even have different "cultural" traditions in different populations. However, it is not these traits that are of the most interest, rather it is presumed shared patterns of aggression. Wrangham and Peterson (1996:24) claim that only two animal species, chimpanzees and humans, live in patrilineal, male-bonded communities "with intense, male-initiated territorial aggression, including lethal raiding into neighboring communities in search of vulnerable enemies to attack and kill." Wrangham asks:

> Does this mean chimpanzees are naturally violent? Ten years ago it wasn't clear . . . In this cultural species, it may turn out that one of the least variable of all chimpanzee behaviors is the intense competition between males, the violent aggression they use against strangers, and their willingness to maim and kill those that frustrate their goals. . . . As the picture of chimpanzee society settles into focus, it now includes infanticide, rape, and regular battering of females by males. (1995: 7)

Since humans and chimpanzees share these violent urges, Wrangham believes that we also share an inborn morality.

> The implication is that strong aspects of human violence have long evolutionary roots. "What are we?" In our aggressive urges we are not Gauguin's creatures of culture. We are apes of nature, cursed over six million years or more with a rare inheritance, a Dostoyevskyan demon . . . The coincidence of demonic aggression in ourselves and our closest kin bespeaks its antiquity. (Wrangham 1995:7)

Like Dart, Washburn, and Wilson before them, Wrangham and Peterson theorize that killing and violence are inherited from our ancient relatives. However, they argue this is not a trait unique to hominids nor is it a by-product of hunting. In fact, it is just this violent nature and a natural "blood lust" that makes both humans and chimpanzees such good hunters. Bonobos help Wrangham and Peterson come to this conclusion. Since, they claim, bonobos have lost the desire to kill, they also have lost the desire to hunt.

> . . . do bonobos tell us that the suppression of personal violence carried with it the suppression of predatory aggression? The strongest hypothesis at the moment is that bonobos came from a chimpanzee-like ancestor that hunted monkeys and hunted one another. As they evolved into bonobos, males lost their demonism, becoming less aggressive to each other. In so doing they lost their lust for hunting. . . . Murder and hunting may be more closely tied together than we are used to thinking. (Wrangham and Peterson 1996:219)

Wrangham believes that blood lust ties killing and hunting tightly together, but in his scenerio it is the desire to kill that drives the ability to hunt. Like other sociobiologists, Wrangham and Peterson believe this lust to kill is based upon the selfish gene. They argue:

> The new theory, elegantly popularized in Dawkins's *The Selfish Gene*, is now the conventional wisdom in biological science because it explains animal behavior so well. . . . the general principle that behavior evolves to serve selfish ends has been widely accepted; and the idea that humans might have been favored by natural selection to hate and to kill their enemies has become entirely, if tragically, reasonable. (Wrangham and Peterson 1996:23)

Of course, the selfish gene theory is also used to explain why bonobos don't kill their enemies. This level of generality has about the same explanatory power as that of the late eighteenth century biologist Jeremy Bentham's "moral philosophy," which claimed that human behavior is governed by pleasure and pain. Bentham believed that all behavior is dictated by seeking to enhance pleasure and to minimize the likelihood of pain. In fact, both of these philosophies attempt to explain everything and, therefore, explain very little. But that is for another essay.

Problems with These Theories

As with many of the new sociobiological theories, I find problems with both the theory itself and with the evidence used to support it. According to Wrangham and Peterson, humans and chimpanzees might share biologically fixed behaviors because: (1) They are more closely related to each other than chimpanzees are to gorillas, and (2) chimps are a good model for our earliest ancestor and retain conservative traits shared by both. The first of these statements is still hotly debated because the chimps, gorillas, and humans are so close that it is difficult to tell exact divergence times or patterns between the three (*Marks et al. 1988, Marks 1991, Templeton personal communication 1997*).

The second statement is just not true. Chimpanzees have been evolving for as long as humans and gorillas, and there is no reason to believe that ancestral chimps were similar to present-day chimps. The fossil evidence is extremely sparse, and it is likely that many forms of apes have become extinct. Furthermore, even if chimpanzees were a good model for the ancestral hominoid and a conservative representative of this phylogenetic group, this would not mean that humans would necessarily share specific behavioral traits. As Wrangham and Peterson emphasize, chimps, gorillas, and bonobos are all very different from one another in their behavior and in their willingness to kill conspecifics. Because of these differences, in fact, Wrangham and Peterson agree

that evolutionary inertia alone cannot explain behavioral similarities or differences.

Thus, the proof of Wrangham's and Peterson's theory does not rest on theoretical grounds but relies solely on the evidence that violence and killing in chimpanzees and in humans are behaviors that are similar in pattern, have ancient shared evolutionary roots, and are inherited.

Wrangham and Peterson (1996:68) state: "That chimpanzees and humans kill members of neighboring groups of their own species is . . . a startling exception to the normal rule for animals." They go on to point out that this is especially true of adults killing adults. "Fighting adults of almost all species normally stop at winning: They don't go on to kill" (p. 155). However, as Wrangham points out, there are exceptions, such as lions, wolves, spotted hyenas, and, I would add, a number of other predators. In fact, most species do not have the weapons to kill one another as adults. Agonism between adults of many species is common in various circumstances (see Small 1997), but certainly it would take two adult squirrels, rabbits, or aardvarks much more energy than it is worth to kill their opponent than to drive it away. They just don't have the tools. Chimpanzees and humans do, although the tools they use are radically different.

Chimpanzee Aggression

Just *how common* is conspecific killing in chimpanzees? This is where the real controversy may lie. During the first fourteen years of study at Gombe (1960–1974), chimpanzees were described as a peaceful, unaggressive species. In fact, during a year of concentrated study, Goodall observed 284 agonistic encounters: Of these 66 percent were due to competition for introduced bananas, and only 34 percent "could be regarded as attacks occurring in 'normal' aggressive contexts"(Goodall 1968:278). Furthermore:

> Only 10 percent of the 284 attacks were classified as "violent," and even attacks that appeared punishing to me often resulted in no discernable injury . . . Other attacks consisted merely of brief pounding or hitting after which the aggressor often touched or embraced the other immediately. (Goodall 1968:277)

Chimpanzee aggression before 1974 was considered no different from patterns of aggression seen in many primate species. In fact, Goodall (1986:3) explains that in her monograph *The Chimpanzees of Gombe* she uses data mainly from after 1975 because the earlier years present a "very different picture of the Gombe chimpanzees" as being "far more peaceable than humans." Other early naturalist's descriptions of chimpanzee behavior were consistent with those of Goodall and confirmed her first fourteen years of observation. Even different communities were observed to come together with peaceful, ritualized displays of greeting (Ghigliari 1984; Goodall 1965, 1968; Reynolds and Reynolds 1965; Sugiyama 1972).

However, between 1974 and 1977, five adult males from one subgroup were attacked and disappeared from the area, presumably dead. Why after fourteen years did the patterns of aggression change?

Was it because the stronger group saw the weakness of the other and decided to improve its genetic fitness? Surely there were stronger and weaker animals and subgroups before this time. We can look to Goodall's own observations for an answer. In 1965, Goodall began to provide "restrictive human-controlled feeding." A few years later she realized that:

> the constant feeding was having a marked effect on the behavior of the chimps. They were beginning to move about in large groups more often than they had ever done in the old days. They were sleeping near camp and arriving in noisy hordes early in the morning. Worst of all, the adult males were becoming increasingly aggressive. When we first offered the chimps bananas, the males seldom fought over their food; . . . (now) not only was there a great deal more fighting than ever before, but many of the chimps were hanging around camp for hours and hours every day. (Goodall 1971:143)

By this time the social behavior and ranging patterns of the animals was already disrupted, and the increasing aggression eventually created so many problems that observation was almost ended at Gombe (see Wrangham 1974:85).

The possibility that human interference was a main cause of the unusual behavior of the Gombe chimps was the subject of an excellent book by Margaret Power (1991). Wrangham and Peterson essentially ignore this book, stating that yes, this might have been unnatural behavior if it weren't for new evidence of similar behavior occurring since 1977 and "elsewhere in Africa" (Wrangham and Peterson 1996:19). What is this evidence? Wrangham and Peterson provide four examples:

1. Between 1979 and 1982, the Gombe group extended its range to the south and conflict with a southern group, Kalande, was suspected. One day in 1982, a "raiding" party of males reached Goodall's camp. Wrangham and Peterson (1996:19) state: "Some of these raids may have been lethal." However, Goodall (1986:516) describes the *only reported* "raid" as follows: One female "was chased by a Kalande male and mildly attacked. Her four-year-old son . . . encountered a second male—but was only sniffed." Although Wrangham and Peterson imply that these encounters were similar to those at Gombe, in this single observed raid, no violence was ever witnessed. However, Wrangham and Peterson report that in 1981 an adult male, Humphrey, was found dead

near the home range border. They *fail* to mention that Humphrey was approximately 35 years old, and wild chimps rarely live past 33 years (Goodall 1986).

2. From 1970 to 1982, six adult males from one community in the Japanese study site of Mahale disappeared, one by one, over this twelve-year period. None of these animals were ever observed being attacked or killed, and one was sighted later roaming as a solitary male. Nishida et al. (1985:287) state: "Why the adult males disappeared in succession remains a puzzle." They go on to speculate that at least some of these males may have been killed by chimpanzees from another group. However, the rationale for this assumption is that "at Gombe adult males of the main group exterminated those of the branch group" (Nishida et al. 1985:289).

3. In another site in West Africa, Wrangham and Peterson (1996:20) report that researchers Boesch and Boesch believe "that violent aggression among the chimpanzees is as important as it is in Gombe." However, in the paper referred to, the authors simply state that encounters by neighboring chimpanzee communities are more common in their site than in Gombe and that this may lead to larger, more cohesive group structure, and a "higher involvement of the males in social life" (Boesch and Boesch 1989:567). There is no mention whatsoever of violence or killing during these encounters.

4. Finally, at a site that Wrangham began studying in 1984, an adult male was found dead in 1991. Wrangham and Peterson (1996:20) state: "In the second week of August, Ruizoni was killed. No human saw the big fight. . . . the day before he went missing, our males had been travelling together near the border exchanging calls with the males of another community, evidently afraid to meet them. Four days after he was last seen, our team found his disintegrating body hunched at the bottom of a little slope." However, there is no other mention of violence at this site during the seven years before, or the six years following this event.

In fact, this is the total amount of evidence of male-male killing among chimpanzees *after thirty-seven* years of research by an army of researchers! The data for infanticide and rape among chimpanzees are even less impressive. In fact, data are so sparse for these behaviors among chimps that Wrangham is forced to use examples from the other great apes, gorillas and orangutans. However, just as for adult killing among chimpanzees, both the evidence and the interpretations of infanticide and rape are suspect and controversial (see, for example, Bartlett et al. 1993, Galdikas 1995).

This is not to say that obtaining meat may not have been significant in human evolutionary history. There is still some debate concerning the importance of hunting, scavenging, and gathering during various stages of human evolution (as was emphasized mainly by feminist anthropologists in the alternative "woman the gatherer" scenerio of human evolution. See Dahlberg 1981, Linton 1975, for example). This continues to be an important subject of empirical investigation (i.e., Rose and Marshall 1996). However, even if hunting does turn out to be a common subsistance technique among early hominids, this does not necessitate aggressiveness in human interactions. It seems that the neurophysiology of interspecies predation is quite different from the spontaneous violence linked to intraspecific aggression of humans. This was the subject of initial rebuttal by Konrad Lorenz (1963) of early "hunter-killer" scenerios, and more recently by Archer (1988). Thus, I am not saying that chimpanzees or humans are not violent under certain circumstances, as we all know, but simply that the claims of inherent demonism might be greatly exaggerated, just as were earlier claims of Rousseauian paradise.

Reality or Myth?

So far, you could say that I have been a devil's advocate, or adversary, depending on your point of view. But, you might ask, what if Wrangham is correct and we and our chimp cousins are inherently sinners? Are we doomed to be violent forever because this pattern is genetically coded? Is original sin an inborn, fixed action pattern that will ultimately destroy us, or as asked by Wrangham, can we go beyond our past?—get out of our genes, so to speak. In Christianity, presumably it is faith in Christ that will lead us out of our sinful ways. Wrangham and Peterson believe that we can look to the bonobo as our potential saviors.

Bonobos, although even more closely related to the common chimpanzee than humans, have become a peace-loving, love-making alternative to chimpanzee-human violence. How did this happen? In chimpanzees and humans, females of the species select partners that are violent. As Wrangham and Peterson (1996:239) say: "While men have evolved to be demonic males, it seems likely that women have evolved to prefer demonic males. . . . as long as demonic males are the most successful reproducers, any female who mates with them is provided with sons who themselves will likely be good reproducers." However, among pygmy chimpanzees females form alliances, reduce male power, and have chosen to mate with less aggressive males. So, after all, it is not violent males that have caused humans and chimpanzees to be their inborn, immoral selves. It is, rather, poor choices by human and chimpanzee females.

In any case, now, after 5 million years of human evolution, is there a way to rid ourselves of our inborn evils? Wrangham believes so.

> What does it do for us, then, to know the behavior of our closest relatives? Chimpanzees and bonobos are an extraordinary pair. One, I suggest shows us some of the

> worst aspects of our past and our present; the other shows an escape from it. . . . Denial of our demons won't make them go away. But even if we're driven to accepting the evidence of a grisly past, we're not forced into thinking it condemns us to an unchanged future. (1995:9)

In other words, we can learn how to behave by watching bonobos. But, if we can change our inherited behavior so simply, why haven't we been able to do this before Wrangham and Peterson enlightened us? Surely, there are variations in the amounts of violence in different human cultures and individuals. If we have the capacity to change by learning from example, then our behavior is determined by socialization practices and by our cultural histories and not solely by our nature! This is true whether the examples come from benevolent bonobos or conscientious objectors. As stated by Kenneth Bock (1980:76):

> Surely there can be no disputing the fact that humans are able to be aggressive, and there is little guidance in that observation when we are already aware from historical evidence of warfare and other forms of violence in human experience. . . . to observe merely that there has been natural selection for capacities to carry on a social or cultural activity is of limited significance as long as the variations on which selection works occur in a genetic base that is so general as to serve a great variety of such activities. Then the range of possible cultural results is not explicable by natural selection.

Thus, the theory presented by Wrangham and Peterson, although it includes chimpanzees as our murdering cousins, is very similar to "Man the Hunter/Killer" theories proposed in the past. Further, it does not differ greatly from early Euro-Christian beliefs about human ethics and morality. We are forced to ask: Are these theories generated by good scientific fact, or are they just "good to think" *because* they reflect, reinforce, and reiterate our traditional cultural beliefs? Are the scientific facts being interpreted in such a way as to reinforce our traditional Euro-Christian myths of morality and ethics? Is the theory generated by the data, or are the data manipulated to fit preconceived notions of human morality and ethics? Since data supporting these theories are extremely weak, and yet the stories continue to repeat themselves, I am forced to believe that "Man the Hunter" is a myth, and that the myth will continue in Western European views on human nature long into the future.

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