Cruelty's utility: The evolution of same-species killing

Malcolm Potts

School of Public Health, University of California, Berkeley, CA 92704.
pottsmalcolm@yahoo.com

Abstract: Human beings, like chimpanzees, deliberately kill their own species in order to expand their territory. For a self-aware social animal to attack its own kind, it would need to evolve a mechanism to dehumanize, or "dechimpanzee-ize" those it attacks. It is suggested that cruelty reflects such an evolved predisposition. The implications for violence prevention are discussed.

Nell's review of the evolutionary origins of cruelty is careful and much needed. He suggests that gratuitous cruelty evolved 1.5 million to 2 million years ago, and that it is an extension of the rewards predatory animals find in "pain, blood, and death." I suggest that cruelty is linked to coalitional aggression and same-species killing, and probably goes back 7 million years or more to a common ancestor with chimpanzees. I agree with Nell that cruelty used to maintain personal and social power depends on the ability to communicate the intention to inflict pain on another person, but I suggest that we need something in addition to the rewards of a predatory animal to explain the scale and universality of human cruelty.

Sometimes competing males lock horns or gore one another to death, and lionesses can band together to kill a strange male. Systematic, same-species killing, however, is limited to three or four mammalian species. Chimpanzees live in troops of related males who patrol the borders of a defined territory (Goodall 1986). Occasionally, a small group of adult males enters a neighboring territory in a stealthy way. If they find an isolated individual belonging to another troop, they will attack in the most vicious manner imaginable (Wrangham 1999; Wrangham & Peterson 1996). The victim usually dies in a day or two from wounds, blood loss, and shock. As individuals are killed, the attacking troop is able to expand its territory; more space means more fruiting trees, and more food means more females to be impregnated. Up to one-third of chimpanzees die as a result of coalitionary aggression.

Chimpanzees demonstrate self-awareness (Gallup 1982). It seems reasonable to postulate that for an intelligent, intensely social animal to kill another member of its own species, it will require a brain mechanism which in specific circumstances enables it to "de-identify" the animal it is attacking as a member of its own species. Human behavior is replete with examples of cruelty based on dehumanizing the victims, whether it is the enemy in the opposing trench, the believer in another religion, slaves, or criminals. The link between coalitionary aggression and cruelty also fits with the classic psychology experiments on obedience to authority (Milgram 1969/1974), the human predisposition to degrade an out-group (Zimbardo 1972), and recent work associating aversive stimuli with a different racial group (Olsson et al. 2005). It is a hypothesis that implies human cruelty is fundamentally different from that of a shark killing a seal, or cat playing with a mouse.

The fossil (Arsuaga 2002; Defleur et al. 1999), archaeological (LeBlanc & Register 2003), and anthropological record suggests a seamless transition from chimpanzee raiding to raids in preliterate human societies, and ultimately to modern warfare and terrorism. Among the Yanomamo – a preliterate society in South America – 4 out of 10 adults have participated in killing another person (Chagnon 1988). Once an adult brain categorizes a group as "the enemy," then empathy evaporates, and the more that are killed at one time, the better. The basic unit of warfare, whether troops in the Battle of the Somme (Macdonald 1983) or insurgents in contemporary Iraq, is a small group of men who are either kin (as in the Greek Hoplites) (Hanson 1991) or perceive themselves to be kin after basic training, as in the modern Marine Corps (Ricks 1998). The same combination of male bonding and violence can be observed in street gangs (Shakur 1993) and soccer fans (Buford 1992).

It seems as if almost any young adult male, whether as a volunteer or drafted into battle, can join a "band of brothers," and dehumanize a perceived enemy so as to commit obscenely cruel acts against his own species (Gray 1998). Mesquite and Weiner (1997) demonstrate that a high ratio of men ages 15 to 29 years correlates with a greater probability of aggression, whereas a higher proportion of women in a population has been correlated with a more peaceful social order (Worsnop 1990). Eviscerating a live victim on top of the Templo Mayor in sixteenth-century Tenochititlan, wielding the slave driver's whip in early nineteenth-century America, competing to behead the citizens of Nanjing in 1937, cheering a lynch mob in Minnesota in 1920, feeding people into a gas chamber in 1944, or flying a commercial jet loaded with fuel into skyscraper in 2001 are all acts of team aggression that demand an ability to dehumanize the victims.

I suggest that in chimpanzee and hominid evolution, coalitional aggression never benefited females, as territories are established and defended by related males. Although women can fight courageously (Costello 1985), no "band of sisters" parallel to a "band of brothers" has been observed in any culture. Perhaps the closest are the well-documented "Amazons" of Dahomey in the nineteenth century (Edgerton 2000). But, on close examination these seem to have been women surplus to a despot's harem who were literally whipped into battle, rather than the spontaneous, recurrent phenomena of male warriors volunteering to attack.

If cruelty is linked to the evolution of coalitional aggression, then anything strengthening female equality and enhancing women's role in society is likely to promote a more pacific and ultimately less cruel society. One practical step is to improve access to family planning. Since the late 1980s, Iranians have been offered realistic family-planning choices they did not previously enjoy, and family size has plummeted from five in 1990 to two in 2000 – a more rapid decline than in China, and without a one-child policy (Campbell & Potts 2003). There are now more women in Iranian universities than men. In Pakistan, family size still averages almost five; there is massive unemployment of young men, and the population is projected to grow from 162 million today to 295 million in 2050 – almost as many people who live in the United States in a country not much bigger than Texas. In a generation's time, Iran is likely to be a more stable society than Pakistan.

Animal cruelty: Definitions and sociology

Andrew Nicholas Rowan

Humane Society of the United States, Washington, D.C. 20037.
arowan@erols.com

Abstract: The definition of cruelty used by the author is broad and ambiguous and does not distinguish between acts of sadism, abuse, and neglect that all lead to the suffering of other beings. Some of the research involving animal cruelty is reviewed with the aim of raising questions about the relevance of the pain–blood–death (PBD) complex described by Nell.

When is cruelty not cruelty, and does it matter for Nell's argument?

Nell starts his argument with a definition of cruelty as "the deliberate infliction of physical or psychological pain on a living creature (target article, sect. 1)." This is far too broad a definition to be the basis of the development of a biological theory about the origins of cruelty. The discussion and elaboration of the intriguing and provocative pain-blood-death (PBD) complex is weakened by the unexamined ambiguities whenever "cruelty" is used in the text.

For example, there is a very important difference between those who inflict physical and psychological pain or suffering on animals as a "by-product" of their activities and those who do it because they enjoy or gain some other satisfaction from causing suffering. Nell, I suspect, is most concerned about this second, very rare behavior when he argues for the reinforcing nature of the PBD complex, but then ranges much further afield in discussing "cruelty" as a social control measure. The rare occurrence of sadistic cruelty, except in important instances of mass recruitment and pathology (e.g., the Rwandan genocide) or mass moral blindness (e.g., the Holocaust), leads one to question why such cruelty is not more common if the PBD complex has such a fundamental biological basis in our cultural lives.

Someone who engages in abusive behavior (an act of commission) should be distinguished from someone who is simply *indifferent* to or *ignorant* of the same suffering (an act of omission) – (see Rowan [1999] for a more detailed discussion of cruelty definitions). In fact, in instances of apparent "indifference" to suffering, the onlooker may be using various protective devices, either societal or personal, to ignore, obscure, or justify the suffering. The importance of being very careful in how one defines cruelty is demonstrated by an important review of cruel behavior by Felthous and Kellert (1987). Felthous and Kellert looked at studies examining the links between cruel and abusive behavior towards animals and towards humans. The studies that found no such link defined animal cruelty and abusive behavior to humans very broadly. The studies that did find a link used much more restrictive definitions of both animal cruelty and abusive behavior toward humans.

Many people fall into the category of those whose activities might cause suffering to sentient creatures but who either discount or deny the existence of such suffering or who argue that the suffering is an unfortunate by-product of an activity that is beneficial or necessary. For example, workers in animal-slaughtering facilities often either discount or ignore the animal suffering (see Grandin 1988). Those who perform medical experiments on animals often cause physical or psychological suffering (somewhere between 10% and 45% of research animals experience suffering; cf. Anonymous 1999), and their actions are deliberate and premeditated. However, animal suffering in research projects is neither necessary nor desired.

Sadistic cruelty – where the animal suffering is both intentionally inflicted and enjoyed by the actor – is both rare and the subject of very little serious scholarship. Nearly all the pertinent literature on the links between animal and human abuse could have been gathered into a single volume (Lockwood & Ascione 1997), and scholarly studies of cruelty to animals are even more limited. Two South African authors analyzed 1,863 cruelty cases from four SPCAs in South Africa over a one-year period (Vermeulen & Odendaal 1993). More than 80% of these cases involved neglect (acts of omission) rather than abuse or sadistic cruelty. The analysis did not differentiate between sadism and other forms of abuse such as an anger-induced over-reaction. Out of 80,000 complaints received by the Massachusetts SPCA over a 20-year period, only 268 cases were prosecuted, all of which involved some form of deliberate abuse (Arluke & Luke 1997).

Nell briefly discusses the fact that the enjoyment of human and animal suffering is now far less common than in the past and suggests it is because of the social controls exercised by modern, developed societies. Yet, the Rwandan and Serbian activities illustrate that the human ability to be sadistic or to suspend normal moral constraints is still alive and well. We now know that an exposure to a violent or abusive environment is a very strong predictor of later abusive behavior. However, only a minority of children brought up in an abusive household continue the cycle of abuse. If the PBD complex was as important a reinforcer as Nell claims, would we not expect the proportion of children who continue the cycle of abuse to be much higher? Zimrin (1986) reported that the "survivors" of an abusive upbringing (i.e., those that did not continue the abuse cycle as adults) were distinguished from the "non-survivors" by three characteristics – they had an adult mentor in their lives who supported them, they had strong fantasy lives, and they had the responsibility for caring for another being such as a sibling or an animal.

Interestingly, a proportion of those who suffer abuse as children not only avoid continuing the cycle of abuse, but they become what might be termed "super-nurturers." These are individuals who often end up in a caring profession (such as child protection or animal protection). For example, Quinlisk (1999, p. 169) reported that 2 of 49 children from abusive households had become "super-nurturers," and I personally know a number of animal activists who were abused as children, and who described how their care of animals taught them how to care (see Zimrin 1986). If the PBD reinforces cruel behavior, then how would such an outcome be explained?

In sum, we need to be much more careful in how we define and use the word *cruelty* if we are to understand its manifestations and its biological roots. If the "thrill of the kill" is self-reinforcing, as the presence of a PBD complex might imply, then how does being raised in an abusive household lead some into continuing that behavior as adults, while others end up at the opposite extreme as super-nurturers?

Executive function and language deficits associated with aggressive-sadistic personality

Anthony C. Ruocco[a] and Steven M. Platek[b]

[a]*Department of Psychology, Neuropsychology Program, Drexel University, Philadelphia, PA 19102-1192;* [b]*Department of Psychology, Drexel University, Philadelphia, PA 19104.*

acr32@drexel.edu **smp43@drexel.edu**

http://psychology.drexel.edu/ECNL/

Abstract: Aggressive-sadistic personality disorder (SPD) involves derivation of pleasure from another's physical or emotional suffering, or from control and domination of others. Findings from a head-injured sample indicate that SPD traits are associated with neuropsychological deficits in executive function and language, suggesting difficulties in frontal-lobe-mediated self-regulation of aggressive and emotional impulses. Implications for rehabilitation of aggressive offenders are discussed.

Human aggression is the result of a complex interplay of biological, psychological, and social influences. Nell provides an intriguing exposition of the evolutionary context of cruelty that takes into account the interactive nature of genetic, neural, instinctual, and environmental forces in shaping aggressive behavior in primate species. The functional neuroanatomy of aggressive behavior in humans, however, might best be conceptualized as involving reciprocal relations among neurobiological systems, higher-order neurocognitive processes, distal organismic factors, and environmental antecedents and consequences.

Nell's account of the functional neuroanatomic underpinnings of cruel behavior implicates the involvement of multiple subcortical systems commonly regarded as primary circuits that mediate the expression of aggressive behavior. These neural systems, however, have largely been studied in primates using stimulation techniques, and the extent to which studies of this nature can be generalized to human aggression is unclear. In humans, capacity for higher cognition requires that models of aggression accommodate neurobiological systems that might mediate such behaviors and the ways in which these systems may go awry. Neuropsychological findings provide rich information about the neurocognitive functions and associated neuroanatomic subsystems and regions that may be implicated in aggressive behavior. Unfortunately, inconsistent operationalizations of aggression and cruelty in humans have largely precluded meaningful study of these constructs from a neuropsychological perspective (Blake & Grafman 2004).