

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

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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 coalitional 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 coalitional 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 Tenochtitlan, 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

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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.