

Essay Topic: Through the process of evolution, have modern humans become more violent or less?

Abstract:

Palaeoanthropologists have reached a consensus on the fact that there has been decreased aggression observed in modern humans' fossils and behaviour (e.g. relatively reduced canine size; almost no remains showing evidence for cannibalism, etc.) in contrast to both extant great apes and extinct archaic hominins which are closely related to Homo Sapiens, like Homo Habilis. However, in a greater scale, questions are posed when regarding things that modern human beings have done globally: unprecedented dispossession of natural resources, wars causing millions of people to be killed, etc.. Does the aggression of humans really decrease? Or is it just converted into other more complicated forms instead of morphology or daily behaviour? The religious riot in the 16th Century in France displayed extreme cruelty, which is totally against the original purpose of Christianity. More recently, violence witnessed from the Lake Malawi case is not only restricted to physical violence but also from the economical aspects. Based on anthropological approaches, in this article I devoted to drawing upon the social, biological and ecological perspectives to talk about the human-nature relation and its special correlations with human evolution traits.

Key words: human evolution, dispossession, violence

Introduction:

The world is changing rapidly with technological and economical miracles, but also environmental crisis. After stepping into 2019, the campaigns against the climate change, the Extinction Rebellion protests have been escalating in the UK. The reasons behind global warming, resources crisis, wars are complex. Humans' aggression may not be the answers to them all, but I think it is crucial in analyzing those issues from anthropological approaches.

Aggression from paleoanthropological and biological studies:

Charles Darwin's theory of Natural selection indicates that the great variations in phenotype in nature is due to the differential survival and reproduction of differed individuals. This is one of the key mechanisms of the evolution process, the change in the heritable traits characteristic of a population over generations. The unique evolution of human intelligence and morality is viewed by Darwin himself as one of the greatest 'impossibilities' for his theory of evolution through the way how natural selection works. (Darwin 1871)

Modern humans make good use of language, and are bonded to each other with social, cultural cognition and decreased aggression, all these factors together allow for cooperation and development of technology to the level beyond other animals' capability of reach. Besides the aspects like achievement of science or arts, sophisticated self-consciousness, speaking of neurobiology, psychology, and genome, yet we are extremely close to other members of the great ape family (Somel et al. 2013). To cope with the challenge of Darwin, identifying derived features that have evolved in our root and indirectly support our special phenotype is

important, thus it is worth identifying the process by which these traits evolved (Hare 2007, 2011). Interestingly, there are more than 10 different species that could probably be categorized as Genus Homo, and once shared this planet with Homo Sapiens before their extinction. To study ourselves, it is not enough just to point out the uniqueness we possess any more. We must also study what has made our species stand out of the 'crowd' (Wood & Boyle 2016), dominating whilst showing 'decreased domination'

Hare suggests the human self-domestication hypothesis (HSD), it draws on multifaceted evidence (e.g. comparative, neurobiological and fossil) to show that modern human evolution was actually dominated by selection aiming for intragroup prosociality over the physical or mental aggression.

Imagine if there are 80 chimpanzees gathered together to be put into a carriage which has the full capacity of 100 human adults, instead of waiting for the train to get to next destination, they will not hesitate to start a bloodshed or kill each other or even with someone eating each other's dead body due to the fact that cannibalism is observed in wild chimpanzees in African forests. Besides the subway case, the similar consequences would happen in a classroom, a conference room and even on the street. Chimpanzees are not only able to use physical tools with their flexible hands, but also they are good at using other chimpanzees as social tools. Nevertheless, they are limited by their ability to possess a certain level of tolerance toward potential cooperative mates within the same group even for most of the times they are actually aware that they cannot solve the problem alone (Hare et al. 2007, Melis et al. 2006b). Additionally, domesticated dogs know how to ask for help when encountering obstacles to both humans and other dogs, which is the different outcome generated by the domestication

process compared to wild wolves (Miklosi et al. 2003). The very existing inflexibility and intolerance in such natural contexts prevent chimpanzees from embracing the process called cultural ratcheting: sharing intentions and building on previous innovations (Hare 2011). The HSD hypothesis suggests that the 'reduced emotional reactivity that results from self-domestication and increased self-control created a unique form of human tolerance allowing the expression of more flexible social skills only observed in modern humans' (Hare, 2017:157). Similar short-period evolutionary traits seen in domesticated animals have made it possible for their number to drastically increase in a fairly short time and smaller space. Nevertheless, this level of tolerance and socially cooperative cognition develop only explosively among *H. sapiens* and left us as the last but toughest humans on this planet, defeating creatures with more aggression than us. The exclusive ability to attribute mental states to others, to feel what others feel, is the foundation of cultural cognition (Herrmann et al. 2007). To some extent, we have developed the ability of 'empathy', which is to recognize what others perceive, intend and feel. This ability has been forming since infancy, to read, or more precisely, understand people around like parents and siblings. After entering adulthood, the ability would become more mature, make it possible for us to infer others' thoughts based on observable social cues and speculations based on previous experience. This spectacular ability to understand the minds of other people opens the door for a greater number of things from imitation (effective learning) to group coordination (efficiency increase and innovation), teaching (effective learning), and the development of languages, containing linguistics, computing, etc. (Seyfarth & Cheney 2014, Tomasello 2009b).

Ever since the Holocene, humans have exhibited high levels of intragroup activities, including

prey meat sharing, helping each other with daily work, and various types of bonding (Kramer 2014, Warneken 2015). Meantime, it was also found progress of humans on cooperative communications, speed of expansion of civilizations, and coordinated defense against invaders who can be anyone harmful, as well as range social networking across long distance (Cieri et al. 2014, Hare 2011)

In terms of morphology, modern humans have shown reductions in neonatal androgens and pubertal testosterone levels with brain serotonin and oxytocin availability increased (Cieri et al. 2014, Nelson et al. 2011). Importantly, Modern *H. sapiens* also exhibit a certain level of reduction in cranial size (mostly bone size, not the relative size of the brain!), fairly less masculinized faces, more globular and smoother cranial development, and depigmentation of the sclera which is particularly easily observed in Indo-European families. (Cieri et al. 2014, Hublin et al. 2015, Tomasello et al. 2007)

To make evolutionary evidence showing the essential reduction of aggression in modern humans, the morphological evidence showing the changes discovered from osteology should be applied as well as the use of genetic information. Chimpanzees might not be the best examples that anthropologists can provide with, *Homo Erectus* can be a more adequate candidate to compare with *Homo Sapiens*. The reduction in the brow ridges and absence of supraorbital torus indicate there has been reduced pubertal androgens and less despotic behavior especially among males; The reduction of facial length (i.e. less facial prognathism), smaller lower jaws could not only show the reduction of pubertal androgens and less despotic behaviors but also the smaller proportion of raw food (e.g. raw meat with blood) in the diet. According to the dating process of Paleoanthropology, the appearance of those can be traced

back to Middle/Upper Paleolithic(Cieri et al. 2014);A more interesting but scientific fact is that among Homo Sapiens, the ratio of 2nd digit finger to 4th digit finger is 0.945, and that appearance of that is shown to appear after the last common ancestor shared with Homo Neanderthal, which is very modern, Reduced prenatal androgens and risen sensitivity to social cues(Nelson et al. 2011);The white sclera tells the increases in the rate of oxytocin and mutual gaze,and the time of appearance still remains unknown for paleoanthropologists.(Tomasello et al. 2007)Moreover, Hublin argues that the early emergence of social cognition and the brain's social network can be detected from modern humans' globular cranial shapes, which are differed from Homo Erectus's and Homo Neanderthal's. When speaking of the absolute brain size, modern humans possess absolutely the largest. We acquire the size for the increased self-control and tolerance for the correspondingly complex social relations(MacLean et al. 2014)

Additionally, besides those evidence on the cranium, there is one post-cranial finding--the extended synaptic pruning, which is evolved for late onset of adult self-control(Casey 2015).

Overall, in terms of the directions of evolution , then one of them is shifting instinct aggression all the way towards less.With the help from those multifaceted evidence, modern humans do have reduced aggression, at the same time, increased level of tolerance. Most importantly, both of the changes point towards the dramatically improving communicative-cooperative abilities of human beings.

Aggression from social and ecological studies:

Despite the fact that we have been experiencing evident reduction of aggression in many

aspects, the picture of modern world does not seem to be as peaceful as it is supposed to be theoretically. Instead of the basic and direct violence towards each other, aggression has transformed into diverse shapes and forms, transcending borders among different definitions. Land grab is one of the products showing the sign of violence in a greater scale. Apparently, 'globalization has made the world flatter' (Friedman 2006: 11), via the help from different means of transport, it is way easier and quicker than before to travel, do business and exchange technologies. The body of aggression or violence does not easily show up here, and the original intention of the land grab is not aggressive, it is supposed to be a mutually beneficial way of operating business heavily based on modern transport, on exotic and distant land, and as well as helping local economies with the direct import of modernized technologies.

The recent global land grab has become a key issue of human development worldwide. The so-called land grab can refer to cross-border, large-scale land transactions for commercial use that are carried out by transnational enterprises or foreign governments, especially those of the developed countries. (Grain 2008).

Besides the reason highlighted by medias which is because of the consequence of the food crisis of 2007–2008, the process provides production of food for export to finance-rich, resource-poor countries. On the surface, there are several reasons for contemporary land grab, such as the intense globalization, the global liberalization of land markets and the distinct progress on FDI. In reality, when an individual project of land grab is activated, the whole process usually becomes more complex, those people who work as entrepreneurs or regional managers will be unable to take into account the external costs of agriculture-related and

social changes that are caused in light of the international companies' projects and their strategic interventions to local poorer groups' livelihoods. (Portes 1995, 1996, Jackson et al. 2004, Lucas 2004, Vertovec 1999, Sheffer 2003, Zoomers 2006).

During the process in reality of land grabbing, local communities are always forced to resettle in more isolated and poor locations. Government and banks care the most about those foreign investors who have resources, assets and information, and let them easily register with the ownership of massive local lands, taken from a greater number of local people. Foreign embassies are also quite involved in land grabbing, and they have a tendency to protect investors from their countries unconditionally. Although it feels immoral to import tremendous amount of food from countries in which people are still starving to countries whose economies are much better, such as from Sudan to Saudi Arabia (Cotula et al. 2009, 37)., it is all about resources driving, in more explicit other words, power mechanism, as the foreign investors have access to more updated information, knowledge and more monetary resources and social connections, they do not really care about the local poor who are potentially abandoned by the modern financial system. A great part of human nature is to survive for itself and fight for resources with outsiders, and peers, mercy could make resources lose to others' hands. As for local government, it has its own goals in the modern social relations, which are FDI and promoting rural development. The nature of the case of Lake Malawi is somehow similar to the dispossession named 'land grab',

World Bank has publicly announced the area of Lake Malawi as a free-market and a capitalist economy, whereas the analysis of the impact from the Structural Adjustment Loan Programs (SALs) and the International Monetary Fund shows that the 'free market' characterization is

not precise (Harrigan, 1991, p. 204), as there are unfair commercial tourism activities running by investors from outside, forcibly making local communities to move to poorer regions. Mdulumanja, a fishing community which was forced in 1991 to move away from their original resourceful sites for the expansion of a hotel; Chembe, an enclave village in the National Park which is heavily threatened by investors; Also Chinteché where those local communities were dispossessed of their original living environment to make way for a foreign business plans.

As it has shown from the biological-anthropological part that with the reduction of aggression, there is obviously increased level of tolerance. From those global cases of violence, I think it is necessary to discuss if the generally increased tolerance of local people in Africa, Asia or Latin America has indirectly contributed to the exploitation by foreign projects and investors from Europe or North America. Anthropologists indicated that in local Melanesian societies which are more primitive than those westernized indigenous African or Indian societies, they have shown the fact that violence is valued differently but highly, almost being worshiped, particularly in the context of men's initiatory cults (Berndt 1962; Hallpike 1977; Herdt 1981; Langness 1967). Although there has been intervention from the government side, such intense idealization has not turned any milder, which is like being branded onto these groups of Paupa New Guinean people's minds. War is considered to be ritual relationship in priority, with all other rituals being left behind. Among many of the New Guinea Highland societies, a significant amount of warfare is simply a violent play of sociality, in which bloodshed is exchanged as a common alternative to gifts (Brown 1979; Rubel & Rosman 1978; A.J. Strathern 1971; M. Strathern 1985a; 1985b) It was also observed that in Lowland New Guinea

there is a male 'protection racket' operated against women related to violence and warfare((Whitehead 1986), the observation applies to Avatip as well. Avatip men have been having a trick to deal with a young female who is unwilling to marry the man for which her kinsmen chose. She would be forced to work in places like yam gardens. However, on her way to that place,a man of the group would announce there were real enemies hiding in the forest to attack them and thus the girl had to routinely return to her village. The whole 'joke' with strong sense of violence and dominance would be repeated until the unmarried woman comprehend that it is a world full of violence,they have to lean on men for physical protections. Here, the form of violence could even be regarded as the exchange for marriage,the threat from outsiders' aggression here actually has become the excuse to manipulate women(Pinxten 1986; Simmel 1955: 88-9; Storr 1968: 46-8; Thompson 1982). These cases could prove that,to a certain extent, there is no sign showing that local communities have lower aggression,and are being used and exploited by the 'more violent' western foreigners, but exactly the opposite, their more primitive culture could engage with more aggression and less tolerance.

Conclusion:

Deeply, we still have a strong desire for violence and aggression, in our blood. Even our, strong physical bodies was the key to survive in the wild for millions of years, when the considerable level of social network and cooperative abilities had not been developed well enough.

To conclude,aggression is a type of adaption for most wild animals to survive, especially for

males, morphological and territorial aggression help them to win the right to reproduce with the fertile females they desire, thus they get their genes passed into next generation. Humans are not the perfection of evolution, there are so many things humans cannot control for the development. With the genetic computing inside our bodies, we are born with the priority to survive, live better, not to be responsible for the planet and groups of people that are far away from blood connections, at least that is not part of our instinct.

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