

INCOHERENCES IN KONRAD LORENZ'S CONCEPT OF AGGRESSION

Asad Shahzad

Department of Education & Social Sciences
Institute of Business Management, Karachi

I. Lorenz's Argument:

Aggression for Lorenz is an instinct. This instinct does not necessarily need any external stimuli for its provocation. Like the sexual instinct and instinct for hunger it is self-sustaining. The longer the time the aggressive instinct is not activated the lighter the stimulus required for its activation. Being a subtle instinct it is mostly not predictable but spontaneous; and it is the spontaneity of this instinct that makes it extremely hazardous for the survival of the human race. Lorenz maintains, "it is the spontaneity of the instinct that makes it so dangerous. If it were merely a reaction to certain external factors, as many sociologists and psychologists maintain, the state of mankind would not be as perilous as it really is, for, in that case, the reaction-eliciting factors could be eliminated with some hope of success." (Konrad Lorenz, 1972, p. 40) Some psychologists such as the German behavioral psychologist Erich Von Holst had studied behavior as a function of neurophysiology earlier; Lorenz is not the founder of this line of thought, as he remarks, "The fact that the central nervous system does not need to wait for stimuli, like an electric bell with a push button, before it can respond, but that it can itself produce stimuli which give a natural, physiological explanation for the 'spontaneous' behavior of animals and humans, has found recognition only in the last decade." (K. Lorenz, 1972, p. 41-42) This unreleased aggressive energy like hydraulic pressure is dammed-up, so much so that it spontaneously bursts out and causes destruction at different levels and in various forms.

Modern man, according to Lorenz, is suffering from an insufficient release of aggressive energy. He thinks, "I believe—and human psychologists, particularly psycho-analysts should test this—that present-day civilized man suffers from insufficient discharge of his aggressive drive. It is more than probable that the evil effects of the human aggressive drives, explained by Sigmund Freud as the results of a special death wish, simply derive from the fact that in prehistoric times intra-specific selection bred into man a measure of aggression drive for which in the social order of today he finds no adequate outlet." (K. Lorenz, 1972, p. 209) And if we fail to create a society which provides harmless outlets like sports, to the aggressive energy, its harmful outburst will be inevitable and will cause total annihilation of mankind on the planet of earth. Commenting on the paradoxical nature of reason with reference to man's probable extinction Lorenz points out, "It is a curious paradox that the greatest gifts of man, the unique faculties of conceptual thought and verbal speech which have raised him to a level high above all other creatures and given him mastery over the globe, are not altogether blessing.... All the great dangers threatening humanity with extinction are direct consequences of conceptual thought and verbal speech. They drove man out of paradise." (K. Lorenz, 1972, p. 205) Creation of the channels for the redirection and sublimation of aggression is a great challenge to mankind or there will be no civilization. Discussing the value of sports he asserts, "The value of sport, however, is much greater than that of a simple outlet of aggression.... It educates man to a conscious and responsible control of his own fighting behavior. Few lapses of self-control are punished as immediately and severely as loss of temper during a boxing bout." (K. Lorenz, 1972, p. 242).

Aggression, to Lorenz, whether inter-specific or intra-specific, is not without utility. The aggressive drive is a vital need of both wild animals and human animals. It serves multiple purposes. Lorenz holds, "intra-specific aggression.... also fulfills a species preserving function." (K. Lorenz, 1972, p. 22) He concurs with Darwin's conclusion about the survival value of aggression: "it is always favorable to the future of a species if the stronger of two rivals takes possession either of the territory or of the desired female." (K. Lorenz , 1972, p. 23) In this way aggression leads to the selection of the members that are the best for reproduction

and who are also the fittest to raise and nurture the next generation. Aggression and mutual repulsion cause the even distribution of population over a habitat which is necessary for the optimum utilization of available resources. Lorenz says, "it is obviously most expedient to spread the individuals of an animal species as evenly as possible over the available habitat." (K. Lorenz, 1972, p. 23) Explaining the purpose of the even distribution of population he concludes, "The danger of too dense a population of an animal species settling in one part of the available biotope and exhausting all its sources of nutrition and so starving can be obviated by a mutual repulsion acting on the animals of the same species, effecting their regular spacing out, in much the same manner as electrical charges are regularly distributed all over the surface of a spherical conductor. (K. Lorenz, 1972, p. 24) "This, in plain terms," according to Lorenz, "is the most important survival value of intra-specific aggression." (K. Lorenz, 1972, p. 24) This is how aggression serves life and ensures the survival of the species. Lorenz declares, "aggression, far from being the diabolical, destructive principle that classical psychoanalysis makes it out to be, is really an essential part of the life-preserving organization of instincts." (K. Lorenz, 1972, p. 39).

Intra-specific aggression is life-serving as long as there is equilibrium between ability and inhibitions to kill. Lorenz thinks that the required equilibrium is maintained in animals but has been disrupted in human beings with the invention of nuclear and thermonuclear weapons. When two animals of the same species fight, death is rare. When one member is overwhelmed by the other the vanquished one exhibits appeasement gestures and submissive behavior that evoke the killing inhibitions of the victor. To support his point he refers to the submissive behavior of dogs, gulls, wolves and baboons etc. during intra-specific aggression. He remarks, "The wolf turns his head away from his opponent, offering him the vulnerable, arched side of his neck; the jackdaw holds under the beak of the aggressor the unprotected base of the skull, the very place which these birds attack when they intend to kill." (K. Lorenz, 1972, p. 113) This phenomenon of employing appeasement behavior and submissive gestures can be witnessed in dogs also: "This is certainly the case in the dog, in which I have repeatedly seen that when the

now will submit to loser of a fight suddenly adopted the submissive attitude, and now will never move presented his unprotected neck the winner performed the movement of shaking to death, in the air, close to the neck of the dog, “represented a morally vanquished dog, but with closed mouth, that is, without biting.” (K. Lorenz, 1972, p. 114).

Lorenz believes that unconscious killing inhibitions in human beings have now been overshadowed by the conscious increase of killing potential. He maintains that in the prehistory of mankind there was no need for evolving inhibitory mechanisms because quick killing was not possible. He opines, “No selection pressure arose in the prehistory of mankind to breed inhibitory mechanisms preventing the killing of co-specifics until, all of a sudden, the invention of artificial weapons upset the equilibrium of killing potential and social inhibitions.” (K. Lorenz, 1972, p. 207).

One main cause of this disequilibrium is that man is not a carnivorous animal. Killing inhibitions are evolved in proportion to killing ability. Man, according to Lorenz, unlike the wolf or the tiger, or the lion is not a predating carnivore so he does not need to develop very strong killing inhibitions for the survival of his race. It is only because of “an unnatural trick of nature” that man has invented nuclear and thermonuclear weapons. To Lorenz, with the invention of nuclear weapons, “man’s position was very nearly that of a dove which, by some unnatural trick of nature, has suddenly acquired the beak of a raven.” (K. Lorenz, 1972, p. 207-208) The irony now is that man’s killing potential far surpasses any predating animal while his killing inhibitions are similar only to moderately harmful birds or four-footed animals. The required equilibrium could have been maintained if man has had carnivorous mentality; Lorenz discovers a serious flaw in the process of human evolution: “One can only deplore the fact that man has definitely not got a carnivorous mentality!” (K. Lorenz, 1972, p. 207).

We can discover an interesting and illuminating contrast between the approaches of Lorenz and a twelfth-century Muslim thinker and philosopher, Imam Ghazali. And it is Imam Ghazali’s approach to aggression which is supported by the empirical evidence.

II. The Ghazalian Approach to Aggression:

Aggression, for Imam Ghazali is not an uncontrollable instinct. To Imam Ghazali, aggression is commonly caused by, "socializing with people who are always filled with anger; who are men of aggression and never restrain their anger, and who proudly declare that they have zero tolerance for anyone who speaks ill of them. They are proud of their vices. And their behavior proves that they have neither wisdom, nor mercy or tolerance. A person who socializes with such people he starts giving way to such people's ignorant and vicious behavior in his heart because of his lack of wisdom and he starts believing that it is a great thing to express aggression." (Imam Ghazali, n.d, Vol. 3, p. 263-264) Imam Ghazali thinks that aggression depends on love: "If someone's object of love is snatched away or is even threatened the lover must get infuriated" (Imam Ghazali, n.d, Vol. 3, p. 266) Contrary to Imam Ghazali, Lorenz maintains that the creation of love itself has been caused by aggression, "in the evolution of vertebrates, the bond of personal love and friendship was the epoch-making invention created by the great constructors when it became necessary for two or more individuals of an aggressive species to live peacefully together and to work for a common end." (K. Lorenz, 1972, p. 258) In the chapter BOND, Lorenz says, "Doubtless the personal bond, love, arose in many cases from intra-specific aggression, by way of ritualization of a redirected attack or threatening." (K. Lorenz, 1972, p. 186) Evidence does not seem to support Lorenz's position. Hindus and Muslims, for example, have been living side by side with each other in India for centuries but they have not established the bond of love. So many examples of the ruthless massacres of the Indian Muslims by the Hindus can be given to support this point. And Muslims and Hindus are not the only example in this regard. Hence, love does not seem to be the creation of aggression as Lorenz believes rather aggression seems to be a tool which serves the purposes of love. It is not the case that the necessity of living with each other has invented love as Lorenz thinks; on the contrary, among other factors, it is love itself that has invented the necessity of living with each other and creating society. And where living with each other without love has become necessary man has created laws. Where there is love there is little need of laws for mutual protection, for

example, there is no need to make laws to regulate the behavior of a mother to care about her child. And the lover does not much care about his own survival. For the lover the object of love is more important than his own survival.

Lorenz does not make categories of aggression whereas Imam Ghazali finds it necessary to put various types of aggression in different categories. Imam Ghazali makes three categories of aggressive behavior on the basis of the object of love. He believes that there are three types of objects of love. The object of love can be material or non-material. We will discuss two of them: "First, those objects that are necessary for all, like food, shelter, dress and health etc. If any of these objects is threatened, one naturally and justifiably gets infuriated. Second, those objects that are not necessary for anyone; they include pomp and high positions in society, abundance of wealth, possession of slaves and extravagant and ostentatious means of transportation..... and gold and silver." According to Imam Ghazali, "Love of such things can be totally eliminated." (Imam Ghazali, Vol. 3, p. 267) Here Imam Ghazali and Fromm come close to each other. Fromm thinks that benign aggression is necessary for the survival of mankind but malignant aggression can be controlled and Imam Ghazali thinks that love for the first type of the objects of love is necessary but love for the second type of objects must be controlled. Fromm says, "We must distinguish in man *two entirely different kinds of aggression*. The first.... is a phylogenetically programmed impulse to attack (or to flee) when vital interests are threatened. This defensive, "benign" aggression is in the service of the survival of the individual.... and ceases when the threat has ceased to exist. The other type, "malignant" aggression, i.e., cruelty and destructiveness, is specific to the human species..... it is not phylogenetically programmed and not biologically adaptive; it has no purpose, and its satisfaction is lustful." (Erich Fromm, 1973, p. 25).

Lorenz's approach implies that all aggressive energy should be either redirected or sublimated; Imam Ghazali believes that there are particular conditions when aggression becomes inevitable. Imam Ghazali is critical of total control, or elimination, or total redirection of aggression. Lorenz only

approves aggression when it is in the service of survival. Imam Ghazali approvingly quotes the proverb, "When the male members of a nation become devoid of the sense of honor the female members of that nation do not remain safe (from moral corruption)." (Imam Ghazali, Vol. 3, p. 256) For Lorenz, only that corruption is moral corruption which hinders survival; for Imam Ghazali, "To remain undisturbed and totally silent over the vices is indicative of the deficiency of aggression." (Imam Ghazali, Vol. 3, p. 256) According to Imam Ghazali, the person who is deficient in aggression cannot control and properly train his self: "Control over the self cannot be achieved until aggression overwhelms appetite (or lust)." (p. 256, vol. 3).

Imam Ghazali's state of equilibrium comes somewhat close to Aristotle's mean between extremes but Aristotle's mean between extremes is based on reason whereas Imam Ghazali's state of equilibrium is based on divine revelation and his own conception of reason.

III. Evaluation of Lorenz's Argument:

III. A) Misleading Method of Analogy:

To discover the hidden secrets of human behavior and to establish hypotheses and theories for its description Konrad Lorenz applies the method of analogy. Lorenz says, "*Cephalopods*, like octopuses..... have invented independently of one another, eyes built on the same principle as the lens camera, and when in both cases these organs have similar constructional units....no reasonable person will object to calling both the organ of the *Cephalopods* and that of the vertebrate an eye— without any inverted commas." (Lorenz, 1972, p. 188) He does not restrain himself to the identification of animal organs with human organs on the basis of analogy. He announces, "We are equally justified in omitting the inverted commas when speaking of the social behavior patterns of higher animals which are analogous with those of man." (Lorenz, 1972, p. 188) This implies that if in a situation A, a higher animal takes an action B, then it is extremely likely that a human being in a similar situation will take action B because we are human animals. Animal behavior, for Lorenz is an

ultimate key to understanding human behavior. He observes the behavior of some birds and fish and draws conclusions for man. His method of proof by analogy has been criticized by a large number of scholars. Erich Fromm has found it misleading. Discussing proof by analogy he remarks, "This method has been criticized by many psychologists; already in 1948, Lorenz's eminent colleague, N. Tinbergen, was aware of the dangers inherent in the procedure of using physiological evidence from lower evolutionary levels, lower levels of neural organizations, and simpler forms of behavior as analogies for the support of physiological theories of behavior mechanisms at higher and more complex levels." (Erich Fromm, 1973, p. 43) Albert Bandura points out, "Researchers working in this field also objected to..... analogical reasoning based on superficial similarities in cross-species behavior." He adds, "most theorists understandably rejected the notion that mechanisms governing aggressive behavior in graylag geese and sticklebacks apply equally to human suburbanites." (Bandura, 1973, p. 18).

The study of animal behavior can be helpful mainly in understanding the lower self of man. Our lower self is that which relates us to animal. Immanuel Kant distinguishes man from animal on the basis of man's ability to understand and to have concepts. Kant holds the opinion that human beings have cognitive faculties, which animals do not possess. He argues, "Our knowledge springs from two fundamental sources of the mind; the first is the capacity for receiving representations, the second is the power of knowing an object through these representations. Through the first an object is given to us, through the second an object is thought.....without sensibility no object would be given to us, without understanding no object would be thought. Thoughts without content are empty, intuitions without concepts are blind." (Quoted in Leslie Stevenson & David L. Haberman, 2004, p. 124) In Kant's philosophy we find that perceptual knowledge, "depends on the interaction of two factors: (1) sensory states caused by objects outside the mind and (2) the mind's activity to organize these data under concepts and make judgments that are expressible in sentences. Animals have the first capacity (sensibility), but they lack the second (understanding), for they cannot express themselves in language. Animals perceive prey, predators, mates,

and offspring, but they do not have concepts—they cannot say that anything is a predator, a mate, or a child—and there is no reason to credit them with such thoughts. Similarly, animals can feel pain and they can be in states of arousal such as lust or aggression, but they cannot say or think that they are in pain, randy, or afraid." (Leslie Stevenson & David L. Haberman, 2004, p. 124) Nor can they think that someone else is in pain and therefore they cannot have empathy. Human beings, dominated by their lower selves, are close to animals and have little empathy. For example, it has been reported that serial killers have little or no empathy. A serial killer, who had murdered ten people, including three of his own family members, was asked a question: "How could you do such a terrible thing to people? Didn't you feel any pity for them?" "To which the killer replied very matter-of-factly, "Oh, no—I had to turn that part of me off. If I had felt any of their distress, I couldn't have done it. Empathy is the prime inhibitor of human cruelty." (Goleman, 2006, p. 117) "He [Kant] contrasts our human nature with the animals on one side and with the conception of a "holy will" on the other. Animals feel no tension between desires and duty, for they do not have the concept of duty." (Leslie Stevenson & David L. Haberman, 2004, p. 129) Thus, animals can be in the states of lust or aggression but they do not have the concept of duty; it implies that the presence of inordinate lust and malignant aggression and the absence of sense of duty relate us to animals. In other words, the faculty of reason in man distinguishes him from the animal; and this entails that animals cannot have the sense of duty and they do not have the ability to test their actions on the Kantian criteria of universalizability and reversibility.

Animals do not perceive something as human beings do. The thing as it appears to man is not the same as it appears to animal. Humans and animals both have eyes but the view is different for each, as Kant says: "The eye without the mind is impotent and blind." (Quoted in Thomas & Thomas, 1946, p.197) Our ability of making concepts about what we see, or what our mind receives, tends to force us to have notions of right and wrong. Behavior of a reasonable person, in no way, is similar to that of an animal and therefore interpreting and predicting human behavior by finding analogies between human behavior and

animal behavior is misleading.

Animals do not have a self (as described by Kant); so, they cannot have self control. And a civilization that is not based on the discipline and balanced control of the self is not a civilization but a veiled savagery or disguised animalism. Our lower self is reflective of our dormant animalism; for example, we intuitively compare a greedy person with a rat or a dog, a jealous person with a scorpion, a lecherous individual with a rooster, a cunning person with a fox, a servile one with a cow, a sycophant with a dog wagging its tail etc. The higher self of man cannot be comprehended in the context of man's animalism. Man's imagination, his verbal intelligence, the depths and heights of his reason and emotions, his logical skills, his honesty, sacrifice and spiritual and religious experiences, and his peak experiences, to use Abraham Maslow's term¹, cannot be compared with the abilities and *experiences* of animals. The analogical approach is useful but it is by no means all-encompassing. The method of analogy, on many occasions, cannot be applied even from man to man, let alone from animal to man. For example, if a blue-eyed man kills a person who has slapped him it cannot be concluded that all blue-eyed men are very likely to kill anyone who slaps them. Observing animal behavior and conducting experiments on lower animals to understand man's higher self leads us to a distorted version of human nature and behavior, and to unsound predictions about the future of mankind. This method eventually leads to the enhancement of the dangers that it is most concerned to eliminate.

Protagoras declared, "Man is the measure of all things." It will not be exaggerative to say that Lorenz's analogical approach has come very close to presenting the animal as the measure of all things. And when he discovers that the wisest of all commands is Know Thyself, what he understands by it is, Know the Animal to Know Yourself. Lorenz on a theoretical level agrees that man is more than animal, as he says, "all animal is in man, but not all man is animal." (Alec Nisbett, 1976, p. 128) He tells us that all man is not animal but does not elaborate what in man is more than animal. Even love and brotherhood, according to Lorenz are the outcome of survival pressure, as he declares, "in the evolution of vertebrates, the bond of personal love and friendship was the

epoch-making invention created by the great constructors when it became necessary for two or more individuals of an aggressive species to live peacefully together and to work for a common end." (Lorenz, 1972, p. 258) This implies that when survival is possible without love and friendship, then these emotions are redundant and dispensable.

It is his excessive adherence to the analogical approach which leads Lorenz to conclude that in the present social scenario rats are fitter for survival than man. He thinks that those who do not agree with such conclusions are lacking in scientific humility. He believes that the wisest of all commands is the famous Know Thyself and he thinks that there are three obstacles to the fulfillment of this command, and the one thing common to all three obstacles is Pride. As he says, "the insight necessary to control our own social behavior is blocked by the three pride-inspired obstacles to self knowledge." (Lorenz, 1972, p. 192) Lorenz's thought is in line with that of Aristotle and Charles Darwin. More than two thousand years ago Aristotle exhibited scientific humility and said that man is a social animal. Taking it literally, this implies that there is nothing unique about man, as there are so many other animals that are also social. For Darwin, man is an evolved and evolving ape; Darwin, unlike Aristotle, tells us which animal man is. If we join the findings of Aristotle and Darwin we can say that man is a social and evolved ape. Lorenz goes a step farther and concludes that man is evolved from "perfectly ordinary apes, closely related to chimpanzees" (Lorenz, 1972, p. 197) but this evolved ape even after millennia of evolution is lower than rats as far as survival is concerned because of inharmonious and misbalanced evolution.

III. B) Which Species is Fitter for Survival, Mice or Men?

Lorenz conceives an analogy between rats and men, "man's social organization is very similar to that of rats which, like humans, are social and peaceful beings within their clans, but veritable devils towards all fellow-members of their species not belonging to their own community." (Lorenz 1972, p. 204) He draws an imaginative deduction on the basis of this apparent analogy and declares that he does not expect, "the future of

mankind to be any rosier than that of several hostile clans of rats on a ship almost devoid of food." "And this prognosis", he concludes, "would even be optimistic, for in the case of rats reproduction stops automatically when a certain state of overcrowding is reached, while man as yet has no workable system for preventing the so-called population explosion." (Lorenz, 1972, p. 204) On the other hand he gives self-contradictory good tidings, "We are the highest achievement reached so far by the great constructors of evolution." (K. Lorenz, 1972, p. 196) In the Lorenzean and Darwinian evolutionism, real and ultimate greatness of a species depends on its fitness for survival. If rats are fitter for survival then scientific humility demands the acceptance of the view that human animals are not the highest achievement reached so far because the chain is no stronger than its weakest link and man's fatal unfitness for survival on the basis of disequilibrium between killing inhibitions and potential for killing, is the weakest link in the survival chain. But research shows that in the face of the food crisis, overpopulation is controlled not only by rats and other animals but also by humans. Discussing the relationship between the problem of the food shortage and population with reference to Thomas Malthus, and Darwin, the Turkish Islamic scholar and thinker Harun Yahya remarks, "As a result of extensive research into animal groups in the 1960s and 1970s, V. C. Wynne-Edwards, a British zoologist, concluded that living things balance their population in an interesting way, which prevents competition for food. Animal groups were simply managing their population on the basis of their food resources. Population was regulated not by elimination of the weak through factors like epidemics or starvation, but by instinctive control mechanisms. In other words, animals controlled their numbers not by fierce competition, as Darwin suggested, but by limiting reproduction." (Harun Yahya, 2002, harunyahya.com).

Furthermore, when human groups are caught in a crisis they do not abruptly continue killing each other (as, for example, Thomas Hobbes' view as well that the state of nature is a war of each against all) rather they establish a leadership, a mode of conduct, and a great many individuals get ready to sacrifice their own lives for others or for the perpetuation of life; for instance, "In 1852, the British trooship H.M.S. *Birkenhead* was traveling

to South Africa when she hit a ledge and foundered. On board were more than seven hundred men, women, and children. With only twenty minutes left before she would sink, the decision was made to place all women and children aboard the few lifeboats. The men would remain behind and face the man-eating sharks circling the disaster. Hundreds of men drowned or were eaten alive in full view of their children, but not a single woman or child perished that day. In past years, this story was known by every schoolboy and girl." (visionforum.com) No one can expect such heroic behavior from rats. And monotheistic religions place great importance on sacrifice, for instance, the Holy Quran exhorts the believers for the self-sacrificing behavior, "and (they) entertain no desire in their hearts for things given to the (latter), but give them preference over themselves." (islam101.com) Many examples of the externalization and manifestation of this teaching can be referred to especially from the early history of Islam.

III. C) Darwinian Evolution: Beamless Ground on which Lorenz's Architecture of Energy Model of Aggression Stands:

Lorenz's analogical approach and his instinctivism are ultimately based on Darwinian evolutionism which itself is unproven. There is no empirical evidence for Darwinian evolution so far. Lorenz expresses his belief in Darwinian evolution, "I consider that our ancestors, at a time fairly recent in relation to the earth's history, were perfectly ordinary apes, closely related to chimpanzees." (Lorenz, 1972, p. 197) He adds, "Far from seeing in man the irrevocable and unsurpassable image of God, I assert.....that the long-sought missing link between animals and the really humane being is ourselves!" (Lorenz, 1972, p. 197) According to Erich Fromm, Lorenz's belief in the powers of the great constructors of evolution, i.e., selection and mutation, is a new form of idolatry. At the end of the first chapter Fromm (1973) discusses the Darwinian blind belief in evolution. He points out, "The social and moral Darwinism preached by Lorenz is a romantic, nationalistic, paganism that tends to obscure the true understanding of the biological, psychological, and social factors responsible for human aggression." (Fromm, 1973, p. 54) Michael Denton, an Australian molecular biologist, produced an insightful

critique of neo-Darwinianism in his 1985 book; he comments, "Ultimately, Darwin's theory implied that all evolution had come about by the interactions of two basic processes, random mutation and natural selection, and it meant that the ends arrived at were entirely the result of a succession of chance events. Evolution by natural selection is therefore, in essence, strictly analogous to problem solving by trial and error, and it leads to the immense claim that all the design in the biosphere is ultimately the fortuitous outcome of an entirely blind random process – a giant lottery." (Denton, 1987, p. 43) And Albert Einstein seems to be in total consonance with Michael Denton in this regard when he declares, "God does not play dice with the universe." (wikiquote.org) Stephen Jay Gould, an American evolutionary biologist, paleontologist, former Harvard University professor of Geology and Paleontology developed the punctuated equilibria theory of evolution which is contrasted with the gradualist theory of Darwinian evolution. According to this theory, "the fossil record contained few examples of organisms exhibiting a continuous, gradual evolution in form, but many examples of the abrupt appearance of completely new species. From these observations Gould and Eldredge proposed that the evolution of a species results from rapid changes to an isolated population, caused by such natural phenomena as major climate change, followed by long periods of evolutionary stability." (encarta.msn.com) If the punctuated equilibria theory is true then the supposed disequilibrium between killing potential and killing inhibitions is not disastrous because in that case mankind does not take several millennia to reach the desired equilibrium. Colin Patterson, Senior Paleontologist, British Museum of Natural History, London, in his keynote address at the American Museum of Natural History, New York City, said, "One of the reasons I started taking this anti-evolutionary view, was ... it struck me that I had been working on this stuff for twenty years and there was not one thing I knew about it. That's quite a shock to learn that one can be so misled so long. ...so for the last few weeks I've tried putting a simple question to various people and groups of people. The question is: Can you tell me anything you know about evolution, any one thing that is true? I tried that question on the geology staff at the Field Museum of Natural History and the only answer I got was silence. I tried it on the members of the Evolutionary Morphology Seminar in the

University of Chicago, a very prestigious body of evolutionists, and all I got there was silence for a long time and eventually one person said, 'I do know one thing — it ought not to be taught in high school'." (soulwinners.com.au).

Lorenz is an instinctivist but his support of Darwinian evolution tends to play the role of conditioning people, making them believe that they are the descendants of apes. It is not very dissimilar from the conditioning of the so-called lower caste Hindus in India. The *lower caste* Hindus are taught and made to believe that they are inherently unclean and unholy so they themselves believe that they are untouchables. Their behavior is designed by this belief, Darwinism makes us believe that we are animals and we start behaving like animals.

Lorenz tells human beings that they are animals and worse than rats and then also believes that in the process of evolution they will establish high moral standards: "The obvious conclusion is that love and friendship should embrace all humanity, that we should love all our human brothers indiscriminately..... I believe in the power of human reason, as I believe in the power of natural selection. I believe that reason can and will exert a selection pressure in the right direction." (Lorenz, 1972, p. 258) His simultaneous belief and disbelief in human reason seems to be an excellent example of Orwellian doublethink. We can observe that Konrad Lorenz, the believer in reason also believes, "left to itself, reason is like a computer into which no relevant information conducive to an important answer has been fed....it is wonderful system of wheel within wheels, without a motor to make them go round." (Lorenz, 1972, p. 213) Thus, in Lorenz's works we find both the unnatural trick of nature and unreasonable belief in reason. A Ukrainian scientist, Valentine Zhalko-Titarenko, who is the Senior Scientist at the Institute of Epidemiology and Infectious Diseases, Kiev, said about the moral consequences of the acceptance of the unproven theory of evolution, "It is impossible to raise one's conscience without belief. It is too naïve to think that it can be done by means of culture and art. If the person is brought up as the successor of animals, that is monkeys, he'll be like them." (theepochtimes.com).

III. D) No Empirical Evidence for Lorenz's Hydraulic Pressure Model of Aggression:

Lorenz's concept of aggression as self-sustaining instinct operating like hydraulic pressure has not been supported by evidence. Even experiments conducted on animals do not endorse Lorenz's stance of aggression as a constantly damming-up energy independent of social circumstances. Experiments conducted on animals show that aggressive behavior is strongly caused and modeled by environmental factors. Z. Y. Kuo's classical experiments on kittens and rats² offer a classical example.

Erich Fromm does not agree with Lorenz's energy model of aggression. He finds this model of aggression unsupported by empirical evidence and remarks, "The study of animals shows that mammals _____ and especially the primates _____ although possessing a good deal of defensive aggression, are not killers and torturers. Paleontology, anthropology, and history offer ample evidence against the instinctivistic thesis." (Fromm, 1973, p. 25) Not only is Lorenz's energy model of aggression not supported by evidence but also there is evidence which supports the view that all aggression is not instinctive; social and environmental factors are also responsible for aggression. Leonard Berkowitz, a research scholar who mainly focused his research on aggressive behavior says while discussing Lorenz's concept of pent-up aggressive energy, "Specific brain areas are involved in many aggressive actions, but these areas seem to govern reactions to emotional situations rather than serving as reservoirs of an accumulation of aggression spurring excitation or chemical. research indicates that supposedly spontaneous aggression and other instances of seemingly "vacuum" instinctive behavior as well are much more likely to be responses to stimuli in the surrounding situation than actions that are only "pushed out" by internal forces." (Berkowitz, 1993, p. 384).

A Russian research scholar, N. N. Kudryavtseva, conducted experiments to find whether aggression is an instinct as Lorenz conceives it. He observed the effects of the experience of repeated aggression on the behavior and emotional state of male mice. He concludes: "It is suggested that as a result of repeated experience of aggression and victories, the normal innate

mechanisms of regulation of aggressive behavior are transformed into pathological ones, which are based on the accumulation of neurochemical shifts appearing in the brain of aggressive winners and enhancing aggressiveness. Other situations exist that decrease the threshold for aggressive response manifestation and thus enhance aggression. The concept by Lorenz on the possible existence of a mechanism (but not instinct) of spontaneous accumulation of aggressive energy forming permanent drive (motivation) to aggressive manifestations is experimentally supported for individuals having had long experience of aggression and social victories." (Kudryavtseva, 2004, p. 660) Following the tradition pioneered by Lorenz, Kudryavtseva made experiments on animals and drew conclusions for human beings. In this case 'Know Thyself' becomes Know the Mice and You Know Yourself. His conclusion seems closer to conditioning than to instinctivism because aggression gradually becomes a conditioned response to repeated victories. Even in the case of animals, the hydraulic pressure model of aggressive energy has not been proven. What has been shown is not that aggressive energy keeps increasing like the vapor pressure in a constantly heated pressure cooker but rather that the more favorable response mice get repeatedly for displaying aggression the more inclined they become to showing aggression. Conversely, it is also possible that chemical shifts can be controlled by frustrating aggressive impulses, which means that their operations depend more on social than instinctive causes. In the same paper referred to above, Kudryavtseva remarks about Lorenz's hydraulic pressure model of aggressive energy, "the more accumulated aggressive energy present at the given moment, the weaker the stimulus required for its release." (Kudryavtseva, 2004, p. 657) Kudryavtseva's experiment shows that the accumulation of aggressive energy does not depend on the given moment or on the passage of time during which aggression has not been expressed rather it depends on the repeated experience of victories which implies that it depends on the conditioned stimulus which is victory in this case. If the attempts of the perpetrator of aggressive behavior are frustrated then aggressive behavior will go into extinction, to use Ivan Pavlov's term. Thus, Kudryavtseva's experiments on mice show that aggressive behavior can be better explained by Behaviorism than Lorenz's Instinctivism.

If aggression is not an instinct then Lorenz's fear of total annihilation of mankind partially because of lack of killing inhibitions is not well-grounded.

It is obvious that modern war is far more destructive than past wars. The casualties of the First and Second World wars alone are more than those of all wars fought in the last five thousand years: "The two great wars witnessed in the 20th century have taken a toll of human life, which surpasses the total loss of life and property in wars over the last fifty centuries." (Khurshid Ahmed, 2002, p. 3) But the aim of war is not to give a sufficiently satisfying outlet to the pent-up aggressive energy as Lorenz thinks. The aim of war is mostly either plunder (in this case the aggressor is motivated by greed to accumulate), or defense (motivation in this case is fear), or to avenge past defeat or degradation (motivation here is sense of honor or national or racial pride), or to get control over the whole selves of others (motivation is the will to dominate), or to fulfill the commands of God in various religious contexts (motivation is a sense of being chosen for the fulfillment of Divine mission).³

If wars are fought on the basis of motivations that we have mentioned then aggression is not caused merely by a desire to release pent-up aggressive energy.

The acceptance of aggression as an instinct implies that "humanity is not enthusiastically combative because it is split into political parties, but it is divided into opposing camps because this is the adequate stimulus situation to arouse militant enthusiasm in a satisfying manner." (Lorenz, 1973, p. 234) This line of thought implies that people who are struggling for the victory of truth over falsehood are not struggling for truth because truth does not exist; they are only finding channels to give way to their dammed-up aggressive energy. Thus, in the Lorenzean context, the channels through which pent-up aggressive energy can be released appear to be truth; apart from this, truth, in the evolutionist discourse, is that which supports survival. This approach promotes anomie and meaninglessness, to borrow Emile Durkheim's term. I do not fight for a cause because the cause is based on truth rather I pursue a cause because I am only trying to find ways to release

my pent-up aggressive energy in a satisfying manner. In other words, all differences and disagreements between individuals, groups, nations and communities are the manifestations of what ethologists call appetitive behavior, caused by the instinctual status of aggression, and hence in reality there is no absolute truth. This also entails that there is nothing worth fighting for other than survival, which to Darwinists, is the highest value. This line of thought produces the lowest form of morality as GB Shaw said, "If the wicked flourish and the fittest survive, Nature must be the God of rascals." (Man and Superman, GB Shaw, 2006, p. 253).

III. E) Disequilibrium between Killing Potential and Killing Inhibitions is Caused by Non-Aggressive and Social Factors:

Lorenz thinks that there existed a very suitable life-serving equilibrium in human society between aggressiveness and killing inhibitions, then, "all of a sudden, the invention of artificial weapons upset the equilibrium of killing potential and social inhibitions." (Lorenz, 1972, p. 207) In predators inhibitions are activated by submissive gestures and appeasing behavior which serve to protect the life of the defeated member in intra-specific aggression. Lorenz believes that we now need more killing inhibitions because, "In human evolution, no inhibitory mechanisms preventing sudden manslaughter were necessary, because quick killing was impossible anyhow; the potential victim had plenty of opportunity to elicit the pity of the aggressor by submissive gestures and appealing attitudes." (Lorenz, 1972, p. 207) He thinks, "No selection pressure arose in the prehistory of mankind to breed inhibitory mechanisms preventing the killing of co-species until, all of a sudden, the invention of artificial weapons upset the equilibrium of killing potential and social inhibitions." (Lorenz, 1972, p. 207) Thus, for the restoration of equilibrium, Lorenz opines, we need the selection pressure which will bring our killing inhibitions to the state of desired equilibrium.

In animals inhibitions are activated by viewing submissive gestures and appealing behavior. In man, even though inhibitions exist instinctively, they can be and are activated or deactivated by conditioning or indoctrination. So, animals only

have visual inhibitions which do not allow them to kill the animals of their own type and which are activated by viewing submissive behavior whereas man has ideological *apparatuses* for the activation and deactivation of inhibitions.

Observation and evidence show that aggression does not lead to the total destruction of the opponent. According to the Bible, even Pharaoh did not eliminate all Jews but enslaved them and abused them. And if the Americans ruthlessly slaughtered all Red Indians it was because they found them untamable and intractable. Man knows that a living slave is worth more than a dead enemy. The idea of enslavement and exploitation is itself an inhibition, we can call it a negative inhibition, but it leads to the survival of the species. So unlike animals man has both positive and negative inhibitions. And man's positive inhibitions are colossally more powerful than that of animals, if he has not become psychopathic by vicious and sinister indoctrination.

According to Lorenz, one of the key elements that hinders the activation of inhibitions in the case of war is screening, i.e. the distance between the shooter and his victim. Lorenz thinks: "The distance at which all shooting weapons take effect screens the killer against the stimulus situation which would otherwise activate his killing inhibitions. The deep, emotional layers of our personality simply do not register the fact that the crooking of the forefinger to release a shot tears the entrails of another man." (Lorenz, 1972, p. 208).

Lorenz's concept of screening is in line with Aristotle's idea of catharsis. Tragedy does activate pity but this pity mostly is not for someone you are ideologically alienated from. In most cases, the destruction of someone that a group is ideologically alienated from does not grieve them but satisfies and gladdens them. This means that the elimination of screening in a fairly large number of cases will not activate inhibitions if the people are properly conditioned through the perception management industry, i.e., electronic and print media.

Unfortunately, there is no dearth of those for whom the display of their atrocities is not shocking but very satisfying.

There are cases when the display of violence increases violent behavior. Many examples of the negative effect of media violence can be given. There was a very popular case of John Hinckley in the United States who, "in 1981, after watching the film Taxi Driver some twelve times , shot President Reagan. In Britain there is the case of Michael Ryan who shot and killed many people in the village of Hungerford. Numerous videotapes depicting violence were later discovered at his home." (Cardwell, Clark & Meldrum, 1996, p. 85) And "the case of the two 10-year-old killers of James Bulger, Thompson and Venables", is also reported, "who regularly watched adult horror movies, particularly the notorious Child's Play 3. A second case is that of a 15-year-old boy who carried out two armed robberies and whose father blamed violent videos for his son's descent into crime." (Cardwell, Clark & Meldrum, 1996, p. 85-86) The display of violence blinds the viewer so much so that he can even kill his own mother. Two teen-age cousins were inspired to kill one of their mothers by the influence of horror movie SCREAM; they were convicted of murder and conspiracy. CBS News Correspondent Jerry Bowen reported, "there was never any question that, with the help of a younger cousin, 17-year-old Mario Padilla used four knives and a screwdriver to stab his mother Gina Castillo to death." (cbsnews.com) These examples reveal that display of violence also causes desensitization in a large number of people, with particular social backgrounds, and, therefore, the elimination of all screening is not advisable. Moreover, to the extent that screening is a barrier for the activation of inhibitions, the invention of T.V screen, to a great extent, has solved the problem of screening and can be used to activate the inhibitions of people to the extent it is genuinely useful. But in the present scenario we see that T.V produces more hate literature than the material that can activate killing inhibitions or sympathy of people for the victims of war.

To activate inhibitions of people on a large scale, the better, surer and safer way is by regulating the perception management industry, the media, which is a very effective tool for indoctrinating and conditioning. The conditioners themselves are often psychopathic and they infect the whole society with the noxious and malignant disease they are suffering from. Thus, we see that equilibrium is disturbed not by lower level of

inhibitions but by the higher level of the capability of indoctrinating people. So, the problem is not that we need biological selection pressure to develop more inhibitions; we need to resist the deactivation of the inhibitions that we already have been endowed with. It was for the deactivation of inhibitions that former President of the U.S.A, George W. Bush lied to his nation and to the whole world about the existence of weapons of mass destruction in Iraq. Such mass deception is being repeatedly used in present times to deactivate the compassion and sympathy of the masses.

Lorenz contradicts himself when, on the one hand, he recommends the elimination of all screening, and on the other hand, he quotes and endorses a Ukrainian proverb: "When the banner is unfurled, all reason is in the trumpet." (Lorenz, 1972, p. 232) If, at the time of battle, all reason is in the trumpet, how can we expect that the elimination of screening will activate inhibitions? And war history of the past, when there was no screening between the killer and the victim, is replete with examples where absence of screening did not activate inhibitions.⁴

III. F) Questioning Man's Alleged Harmlessness and Non-Existence of Carnivorous Mentality as the Cause of Probable Imminent Annihilation:

Lorenz laments the plight of man: "All his trouble arises from his being a basically harmless, omnivorous creature, lacking in natural weapons with which to kill big prey, and, therefore, also devoid of the built-in safety devices." (Lorenz, 1972, p. 207) Lorenz deplores the supposed non-carnivorous mentality of man, "One can only deplore the fact that man has definitely not got a carnivorous mentality!.....A lion or a wolf may, on extremely rare occasions, kill another by one angry stroke, as I have already explained.....all heavily armed carnivores possess sufficiently reliable inhibitions which prevent the self-destruction of the species." (Lorenz, 1972, p. 207) Making this claims, Lorenz also gives us some very interesting examples of the aggressive behavior of this basically *harmless* creature. He declares, "There is evidence that the first inventors of pebble tools, the African Australopithecines, promptly used their new weapon to kill not only game, but fellow-members of their species as well." (Lorenz,

1972, p. 205) Then he speaks of Peking Man, "who learned to preserve fire, used it to roast his brothers: beside the first traces of the regular use of fire lie the mutilated and roasted bones of *Sinanthropus pekinensis* himself." (Lorenz, 1972, p. 205) If this is the height of man's ruthlessness then what is the degree of cruelty which will convince Lorenz that man is not "a basically harmless creature."

Lorenz observes that a deadly fight between two predators is rare and in this way their survival is ensured. Intra-specific fight between predators rarely results in death because it is the carnivorous mentality which is the creator of strong inhibitions. In other words, inhibitions in animals are in proportion to their predating carnivorous mentality and this proportion is responsible for the maintenance of equilibrium between killing potential and killing inhibitions in them. Fight between predators of the same species is not as rare as Lorenz suggests: "In actuality, however, as a number of researchers have pointed out, Lorenz unduly minimized the amount of within-species aggression that goes on throughout the animal world. Lions, wolves, and even dogs kill other members of their species far more often than Lorenz indicated." (Leonard Berkowitz, 1993, p. 383) And the deadly clash between two human groups, or communities with equal killing potential is not as common as Lorenz implies, for example, we also notice that, at least so far, there is no example of direct clash between two atomic powers, which is indicative of the presence of strong inhibitions.

Even in modern history there is the evidence of the existence of tribes where man had been the eater of man and this does not seem less than carnivorous mentality. The existence of cannibal societies is supported by such accounts as given by the American novelist Herman Melville's Typee (1846), which is an account of Melville's stay with cannibals. According to Nature, International weekly journal of science, "Incontrovertible evidence of cannibalism has been found at a 900-year-old site in the southwestern United States." (Nature 407, 25-26, 7 September 2000).

Man's canine teeth are also an objectification of his

carnivorous mentality; nuclear and thermonuclear bombs are more revealing examples of such objectification of this mentality. Lorenz's hypothesis that man does not have a carnivorous mentality is unconvincing. Reviewing the hypothesis in the perspective of Lorenz's own remarks, we are convinced that man does have a carnivorous mentality; he remarks, "When a man invents, let us say, bow and arrow, not only his progeny but his entire community will inherit the knowledge and the use of these tools and possess them just as surely as organs grown on the body. Nor is their loss any more likely than the rudimentation of an organ of equal survival value." (Lorenz, 1972, p. 205) Man's canine teeth and his alleged potential which can enable him to grow such weapons on his body as bows, arrows, swords, spears, cannons, tanks, missiles, daisy cutters and nuclear bombs do not verify but nullify the claim that man does not have a carnivorous mentality. Man hunts and slaughters animals and eats their flesh. In addition to man's alleged capability for cannibalism, keeping in mind the fact that the hunting tools and weapons are virtual organs grown on man's body, the claim that man does not have carnivorous mentality seems implausible. And if this claim is refutable, the disruption of equilibrium is not proven even within the evolutionist approach.

In addition to this, different opposing forces in man are naturally capable of balancing out each other and creating a sort of psychological homoeostasis. For example, man is both a carnivore and herbivore which means that he has both fight instinct and flight instinct and they both work for the survival of mankind. Carnivorous mentality is balanced by killing inhibitions and flight instinct also strengthens inhibitions for the survival of mankind.

Conclusion:

The idea that aggression is an instinct is only an assumption which is unsupported by empirical evidence, and therefore, Lorenz's energy model of aggression is implausible. To Lorenz, the basic cause of disequilibrium between killing potential and killing inhibitions is the "fact" that man is essentially a harmless carnivore. This fundamental assertion itself is in utter contradiction with Lorenz's overall scheme which asserts that aggression is an

instinct which is spontaneous and does not require any external stimulus for its activation. The very phenomenon that aggression is a spontaneous instinct analogous to hydraulic pressure should have been enough to produce proportionate killing inhibitions. Not only the declaration that aggression is an instinct is against the observation but that inhibitions are inherently weak and have become disproportionate to killing potential is also a mere assertion which is unproven and evidence goes against it.

The theory on which Lorenz's concept of aggression is based, i.e. the theory of Darwinian evolution, has itself been falsified. Lorenz's instinctive model of aggression has not even been proven for animals. Experimentation on animals supports the view that social and environmental effects are the main cause of aggression in animals. And the cause of disequilibrium between killing inhibitions and potential to kill in man is not the hydraulic pressure of the instinct of aggression coupled with the enhanced ability to kill, and the weakness of inhibitions; the cause of this disequilibrium is not wholly instinctive but social aspects play a decisive role. This disequilibrium is not caused by an inherent flaw in man constructed by the process of evolution but is arduously and meticulously achieved by constant and subtle manipulation, indoctrination and conditioning of people through perception management machinery (the media), very actively deactivating their killing inhibitions, and making them go against their higher selves.

Appendix**Konrad Lorenz (1903—1989)⁵**

Konrad Zacharias Lorenz was an Austrian zoologist, animal psychologist, and ornithologist. He is well-known as the “father of modern ethology”⁶ the study of animal behavior and the discoverer of previously unrecognized principles governing animal behavior. In 1973 he shared the Nobel Prize with Nikolaas Tinbergen and Karl von Frisch.

Lorenz studied instinctive behavior in animals, especially in greylag geese and jackdaws. Working with geese, he rediscovered the principle of imprinting (originally described by Douglas Spalding in the 19th century) in the behavior of nidifugous birds.

He wrote numerous books, some of which, such as King Solomon's Ring and On Aggression became popular reading. In later life his interest shifted to the study of man in society.

Lorenz was also a friend and student of the renowned biologist Sir Julian Sorell Huxley (grandson of “Darwin’s bulldog,” Thomas Henry Huxley). Famed psycho-analyst Ralph Greenon was among his friends and Sir Peter Scott was also a good friend.

Notes:

¹“American psychologist and philosopher Abraham H. Maslow (1908-1970) coined this term to describe nonreligious quasi-mystical and mystical experiences. Peak experiences are sudden feelings of intense happiness and well-being, and possibly the awareness of “ultimate truth” and the unity of all things. Accompanying these experiences is a heightened sense of control over the body and emotions, and a wider sense of awareness, as though one was standing upon a mountaintop. The experience fills the individual with wonder and awe. He feels at one with the world and is pleased with it; he or she has seen the ultimate truth or the essence of all things.” (www.themystica.com)

² “Kittens were raised by themselves, with rat-killing mothers, with rat companions. Within each of these conditions half were

brought up as vegetarians and the other half as carnivores. The different rearing conditions produced cats with pacifistic and vicious natures. Those raised with rat-killing mothers became avid rat killers (85 percent); less half of those reared in isolation (45 percent) ever killed any rats; whereas those that grew up with rats developed a strong attachment to them and rarely killed any members of their species (17 percent). Vegetarianism reduced rat-eating but not rat-killing. Kittens that failed to attack any rats after several months of testing under hungry or satiated conditions were then exposed to modeling influences in which they observed adult cats kill rats. Aggressive modeling converted 82 percent of the pacifistic kittens with the isolation background into vigorous rat killers, but even the power of example and severe hunger could not induce rat-raised kittens to attack rats (only 17 percent did so)." (Bandura, 1973, p. 17-18)

³America invaded Iraq for greed; German youth were burning with the fire of vengeance for the degradation imposed on them through the treaty of Versailles which partially is a major cause of the World War II; America fought the Cold War against the U.S.S.R because it feared it as the most powerful challenge to American and European liberalism, the free market economy and American and British style democracy. America's aggressive New World Order, the doctrine of the preemptive strike, the invasion of countries that are ideologically different from U.S.A in various parts of the world, deployment of troops in various countries are examples of the inordinate will to dominate. And the crusades of the middle ages are the examples of wars motivated by the religious fervor.

⁴Numerous pre-modern battles, where there was no distance between the killer and the victim, show that not only reason but inhibitions also were blown out of the mouth of trumpet and soldier most ruthlessly killed, mutilated, and decimated each other and bloodlust of some of them was not satiated unless they had trophy organs of their opponents.

⁵Konrad Lorenz's biographical sketch has been drawn from http://en.wikipedia.org/wiki/Konrad_Lorenz and his biographer Alec Nisbett's book Konrad Lorenz, 1976.

References:

- Albert Bendura (1973) *Aggression: A Social Learning Analysis*, Englewood, New Jersey, Prentice Hall Inc.
- Alec Nisbett (1976) *Konrad Lorenz*, London, J. M. Dent & Sons Ltd.
- <http://www.cbsnews.com/stories/1999/07/01/national/main52735.shtml>
- Daniel Goleman (2006) *Social Intelligence*, London, Hutchinson
- http://www.encarta.msn.com/encyclopedia_761573648/stephen_jay_gould.html
- Erich Fromm (1973) *The Anatomy of Human Destructiveness*, New York, Henry Holt and Company
- George Bernard Shaw (2006) *Man and Superman*, New Delhi, Peacock Books
- Harun Yahya (2002) *Darwinism Refuted*, New Delhi, Goodword Books Pvt. Ltd., (www.harunyahya.com)
- Henry Thomas & Dana Lee Thomas (1946), New York, Blue Ribbon Books
- Herman Melville(1982)*Typee*, New York, Literary Classics of the United States, Inc.
- Imam Ghazali (n.d) *Ahya-ul-Uloom-al-Deen*, Volume III, Karachi, Dar-ul-Ishaat
- <http://www.islam101.com/quran/yusufAli/QURAN/59.htm>
- Khurshid Ahmad (2002) *The Contemporary Economic Challenges and Islam*, Islamabad, Institute of Policy Studies
- Konrad Lorenz (1972) *On Aggression*, Translated by Marjorie Latzke, London Methuen & Co Ltd
- Leonard Berkowitz (1993) *Aggression: Its Causes Consequences and Control*, New York, McGraw Hill, Inc.
- Leslie Stevenson & David L. Haberman (2004) *Ten Theories of Human Nature*, 4th Edition, New York, Oxford University Press
- Michael Denton (1985) *Evolution: A Theory in Crisis*, London, Burnett Books
- Mike Cardwell, Liz Clark, & Claire Meldrum, Psychology

- for A Level, Harper Collin Publishers Ltd, London
- <http://www.nature.com/nature/journal/v407/n6800/full/407025a0.html>
- N. N. Kudryavtseva (2004) Lorenz Was Right!, Russian Journal of Genetics, Vol. 40, No. 6, pp. 656–662. Translated from Genetika, Vol. 40, No. 6, 2004, pp. 808–815., Original Russian Text Copyright © 2004 by Kudryavtseva.
- <http://www.soulwinners.com.au/8.html>
- <http://www.theepochtimes.com/news/6-7-11/43780.html>
- http://www.themystica.com/mystica/articles/p/peak_experiences.html
- V. C. Wynne-Edwards (1986) Self Regulating Systems in Populations of Animals, *Science*, vol. 147, 26 March 1965, pp. 1543–1548; V. C. Wynne-Edwards, *Evolution Through Group Selection*, London, 1986.
- <http://www.visionforum.com/booksandmedia/productdetail.aspx?productid=42157&categoryid=5>
- http://en.wikiquote.org/wiki/Albert_Einstein
- http://en.wikipedia.org/wiki/Konrad_Lorenz
- Will Durant (1985) The Story of Philosophy, Rawalpindi, Services Book Club