EVOLUTION AND ETHICS:T.H. HUXLEY

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Abstract

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Thomas H. Huxley, renown advocate and promoter of Charles Darwin's theory of evolutionary biology, gave a lecture in 1893 entitled "Evolution and Ethics." Though perhaps mentioned in other speeches or writings, Huxley's idea in this lecture, that the "cosmic process," or evolution, reveals itself to be deficient in certain ways, created a major logical issue with the accepted notions of modern science in relation to ethics.

Furthermore, if Darwinian evolution cannot explain or justify "civilized" ethical philosophy, according to Huxley, then what issues are then left unresolved by evolutionary thinking? Though we believe ourselves to represent the pinnacle of intelligence in the animal kingdom, this intelligence seems sadly inadequate to handle many of the problems that our own society continues to confront us with. Thus, not only does our technology provide us with an enormous expansion of the scope of our physical selves, but it also expands our mental capabilities by greatly improving upon our abilities to perform many routine tasks. What about mental tasks that are not routine – tasks that require genuine intelligence? Could this concern be defined as sensibility, the reasonable awareness that all people have value beyond the survival of the fittest? If so, we must define intelligence as anti-Cosmic Process, as Huxley has done.

Teilhard assumes that the emotional quotient is the ultimate evolution, that socialization depends on the emotive unity of humanity. These conditions have yet to be demonstrated in society. Rather, forces like religiosity, politics, economics, and ideology have made more significant inroads into social development, which cannot be called development in any real sense. Human societies have not improved the human condition much, even with technology. We still have an inclination to cruelty and self-destruction. The super-socialization of our collective 'heart' seems more remote every year. Yet our non-unity has not been aimed at a complete recognition of survival of the fittest, rather a survival of the clever, the selfish, the best funded, whether intelligent or not, from Penrose's definition. We are more segmented rather than globally similar and divided rather than united. Teilhard also assumes that a 'single heart' is more highly evolved than the 'single

brain' and reason is inferior to emotion in evolutionary survival terms, though historically and even today, no such paradigm.

Pinker's notion is that science, locating sentience in the brain, will destroy the social idea of soul, separate from physical brain, which will then eliminate our belief that we are free agents responsible for our choices (p. 48). For all our efforts to that end in the study of the brain, postmodern society has turned against such a "scientific" notion and focused even more on the passions of the soul as the "real" locus of person. Pinker's utopian empathy that all people will exhibit when distinctions and differences are removed fails to consider the importance of the non-physical in humanity from which we draw our notions of ethics and morality.

Clearly, even evolutionists like Huxley sensed the rightness of morality, law and order in society, protection of children, peace in community with other persons, protection of property, and freedom. Evolution, according to Darwin, was heartless, mechanical, and meaningless. Huxley and others of his persuasion recognized that life must have meaning and must have other senses than survival. Evolution did not, and does not, provide the necessary explanations for these logical problems.

Keywords: Evolution, ethics, morality, genes, survival of the fittest, social progress, animal instincts

Introduction

Thomas H. Huxley, renown advocate and promoter of Charles Darwin's theory of evolutionary biology, gave a lecture in 1893 entitled "Evolution and Ethics." This speech was subsequently published by the Macmillan Company and reproduced in a volume entitled *Readings in Philosophy* edited by John Herman Randall, Jr., Justus Buchler, and Evelyn U. Shirk (New York: Barnes and Noble, 1967). Though perhaps mentioned in other speeches or writings, Huxley's idea in this lecture, that the "cosmic process," or evolution, reveals itself to be deficient in certain ways, stimulated my thinking that perhaps he had put his finger on a major logical issue with the accepted notions of modern science in relation to ethics.

Furthermore, if Darwinian evolution cannot explain or justify "civilized" ethical philosophy, according to Huxley, then what issues are then left unresolved by evolutionary thinking?

Huxley's View

Part One: Evolution, the Cosmic Process

Evidence of the Cosmic Process

Huxley evidently supported the notion of Darwinian evolution, i.e. the survival of the fittest by natural selection, as the "Cosmic Process," the force and method of the development of life on earth. "From the very low forms up to the highest, the process of life presents the same appearance of cyclical evolution

(222). In every part, at every moment, the state of the cosmos is the expression of a transitory adjustment of contending forces; a scene of strife, in which all the combatants fall in turn. What is true of each part is true of the whole. Thus the most obvious attribute of the cosmos is its impermanence. It assumes the aspect not so much of a permanent entity as of a changeful process in which naught endures save the flow of energy and the rational order which pervades it" (223). In the midst of this changing universe we know now that the universe is expanding and demonstrates entropy rather than a permanent consistent strength. A "cyclical" appearance of nature has not been demonstrated, especially in extinct species and apparent environmental destruction. There are some aspects of the whole which is not true of the parts. Some species cannot cope with change while others revel in it.

The notion that the universe has existed so long that a lengthy process of change has resulted in the complex systems of life we now observe has been reconsidered. Stephen Jay Gould, a prominent evolutionist, concluded that the universe could not have been in existence eternally, but in fact, for not very long. "If the universe had existed for eternity, and had always contained the same number of stars and galaxies as it does today, distributed in more or less the same way throughout space, it could not possibly present the appearance we observe. Stars pouring out their energy, in the form of light, for eternity, would have filled up the space between themselves with light, and the whole sky would blaze with the brightness of the sun. The fact that the sky is dark at night is evidence that he universe we live in is changing, and has not always been as it is today. Stars and galaxies have *not* existed for an eternity, but have come into existence relatively recently; there has not been time for them to fill the gaps in between with light" (Gould, pp.5-6). Gould indicates that the idea of a Cosmic Process must be conceived without the necessity of vast eons of time, since the universe is "relatively recently" existed and within the universe is the earth, which had to develop in an even shorter period of time. So any idea of an evolutionary process of development must be considered to be much shorter than initially believed. This shorter historical development throws some doubt into the effect of a Cosmic Process at all. Teilhard's understanding is more logically acceptable, that "the scientific idea of evolution implies no more that the affirmation of this fact: that every object and every event in the world has an antecedent which conditions its appearance among other phenomena" (Teilhard, p. 192). Though somewhat Platonic, Teilhard only insists that there may be a process whereby all things develop and change. In this notion, Huxley may be clearer as he said, "…the cosmos is the expression of a transitory adjustment of contending forces."

Survival of the fittest

Huxley supported the view that humankind developed within the process of natural selection and rose to the top of the food chain, as it were. "Man, the

animal, has worked his way to the headship of the sentient world in virtue of his success in the struggle for existence" because of conditions and organization better than his competitors (223). "In the case of mankind, the self-assertion, the unscrupulous seizing upon all that can be grasped, the tenacious holding of all that can be kept, which constitute the struggle for existence, have answered" (223). The reason humans could rise so high was due to the nature of the human personality and drive. Man's great characteristics that have enabled him to survive in the cosmic process of strife against competition, i.e., his "exceptional physical organization, his cunning, his sociability, his curiosity, and his imitativeness, his ruthless and ferocious destructiveness . . . against opposition, have now become defects." "Man now punishes many of the acts which flow from them [ape and tiger] as crimes" (224).

There seems to be no clear evidence that any species of animal has ever "worked its way up" the ladder of evolutionary structure. In most natural ways, humans are one of the least "fittest." We do not breed in great numbers; our physical strength and endurance are obviously inferior to many other animals; without artificial environments, we are more affected by environment that many other animals. There continues to be no evidence of "intelligent" species changing positions in the natural order of things and certainly no other social animals with morals. Some species have social structure but not morality. Who decides that man-eating tigers demonstrate unacceptable behavior? Rabbits do not seek to destroy the wolves that eat them. Why should humans? There seems to be logical deficiency here that insists that humans have the right to oppose the Cosmic Process for the sake of our comfort and convenience. Huxley implies that we oppose the Cosmic Process in order to survive, but no other creatures do this. What makes us think we should or ought? The concept of "fittest" is enigmatic, more of a circular argument. The fittest survive, so which animals are fittest? The ones who survive? "We know that many varieties of domestic animals, as well as plants, have arisen under the guiding and indeed forcing hand of man, but they are only varieties, and all tend to revert as soon as man's influence or power over them is removed" (Migeod, p. 18). We really have no evidence for the system; no intermediate states, no transitional forms, no observable changes of a species directly into another totally different one. Dawkins and Ridley suggest that the entire evolutionary process is gene-controlled rather than species-controlled. Ridley contends that "we are far more dependent on other members of our species than any other ape or monkey. We are more like ants or termites who live as slaves to their societies. We define virtue almost exclusively as pro-social behaviour, and vice as anti-social behaviour. The conventional wisdom in the social sciences is that human nature is simply an imprint of an individual's background and experience. But our cultures are not random collections of arbitrary habits. They are canalized expressions of our instincts. That is why the same themes crop up in all cultures – themes such as family, ritual, bargain, love,

hierarchy, friendship, jealousy, group loyalty, and superstition. Instincts, in a species like the human one, are immutable genetic programmes; they are predispositions to learn" (Ridley, p. 6).

Ridley quotes Dawkins that "we are survival machines—robot vehicles blindly programmed to preserve the selfish molecules known as genes. Given that genes are the replicating currency of natural selection, it is an inevitable, algorithmic certainty that genes which cause behavior that enhances the survival of such genes must thrive at the expense of genes that do not" (Ridley, pp. 18-19) . Dawkins has called the genes "selfish" and that they create *memes*, or units of cultural information transferable from one mind to another. The human gene then lives in a host (humans) and powerfully transmits information to the host that will facilitate the survival of the gene. For Dawkins, "evolution depended not on the particularly chemical basis of genetics but only on the existence of a self-replicating unit of transmission--…the gene" (from Meme article). So then, the gene replicates itself and transmits the cultural information from itself to the next human host, thus propagating or developing an inheriting understanding of culture, like morality and religion. The major problem for Dawkins' idea has recently appeared in genomic research. The gene, in fact, only stores or contains information but does nothing with it. Other molecular elements and forces actually "move" the information (Meyer, pp. 453-480). Dawkins had assigned a sentient-like quality to genes, which implies intelligence or plan; hardly a random, purposeless situation. Now we know that here are so many other factors involved in the transmitting of DNA information and that genes are simply "encyclopedias" or containers of information. Other forces must use the data, and Dawkins' idea has no foundation in evidence.

Stewart explains that "some secrets lie deeper than the genetic code. Genes are fundamental to earthly life but their role in determining form and behavior tends to be overstated – especially in the media. Genes are not like engineering blueprints: they are more like recipes in a cookbook. They tell us what ingredients to use, in what quantities, and in what order – but they do not provide a complete accurate plan of the final result. . . . In trying to understand life, however, it is SO tempting just to look at life's recipe book – its DNA code sequences. DNA is neat and tidy; organisms are messy. DNA can be captured by little more than a list of symbols; the laws of physics require sophisticated mathematics even to state them. . . . As a consequence, we are in danger of losing sight of an important fact: there is more to life than genes. That is, life operates within the rich texture of the physical universe and its deep laws, patterns, forms, structures, processes, and systems. . . . DNA is not the secret of life . . . It is an essential secret, but not the only one" (Stewart, pp. x-xii).

Huxley defined "fittest" as "the best, and best means moral." Not all evolutionists hold to this idea that fittest is only most moral. Some admit that Darwin's idea was more inclined to the necessities of physical survival, and

conclude that human intelligence afforded people new ways to adapt to environment and competition from other species for food, shelter, and protection from harm. The film "2001," based on Arthur C. Clarke's book of the same title, illustrates this view as one scene shows the ape-man learning to strike one bone upon another and realizing the strategic effect of such use in driving away enemy competitors at the water hole. So "fittest" depends on conditions. Thus men must define the evolution of ethics as dependent on developing conditions of society (236).

E.O. Wilson and several other scholars have sought to explain the social evolutionary development of morals in the study of sociobiology. The idea is that genes play a decisive role in human behavior to improve fitness for survival, which results in social processes conducive to their continued existence. The individual is not as important to the population as its genes. Homogenous groups have common genes which ,when passed along to the next generation, will result in behaviours that will be more likely lead to survival (from Sociobiology article). The problems with this idea are similar to Dawkins' idea of the selfish gene. We have discovered that genes are not the driving force. Genes do not transmit any information, but other molecular elements are the chief factors in the use of the data stored in genes. Therefore, social conventions and traditions are not so much transmitted by impersonal genes but by personal values of persons. Even in animals, there are some which protect young and some which do not. Both kinds of offspring have survived, so no pattern of sociobiology can be derived from this example. There is no evidence that species which have become extinct did so because their genes did not transmit survival behaviours, not any evidence that the survivors' genes did. Instincts are much more complex behaviours than gene-driven information for which genes can claim responsibility. As Card explains, "Jane isn't rational either," said Miro. "She's just like us. Just like the Hive Queen. Because she's alive. Computers, now, those are rational. You feed then data, they reach only the conclusions that can be derived from the data – but that means they are perpetually helpless victims of whatever information and programs we feed into them [not unlike the idea of selfish genes or the inevitable Cosmic Process]. We living sentient beings, we are not slaves to the data we receive. The environment floods us with information, our genes give us certain impulses, but we don't always act on that information, we don't always obey our inborn needs. We make leaps. We know what can't be known and then spend our lives seeking to justify that knowledge" (*Children of the Mind*, p. 113).

The nature of morality

Huxley believed in what he called "sound ethical principles" which reflect actions that are contrary to the "lower nature" of humanity, exhibited by the "passions," the desires for selfish aggrandizement and mistreatment of others. "The science of ethics professes to furnish us with a reasoned rule of life; to tell us

what is right action and why it is so." Ape and tiger methods of the struggle for existence are not reconcilable with sound ethical principles (224). The problem of evil has demonstrated itself as a major problem that humans must overcome; evolution is "full of wonder" and beauty but also pain (224). In Hinduism and Buddhism, evil is an illusion. "There is nothing good nor bad but thinking makes it so." The cosmos is good, man escapes evil by destroying our human "fountain of desire whence our vices flow," i.e. asceticism, enlightenment, selflessness (228-231).

The Stoics saw that "the cosmic nature is no school of virtue but the headquarters of the enemy of ethical nature." Man has a lower nature, the animal, which leads to savagery.

Man also has a higher nature, reason, which leads to virtue (232-233). Modern thought is fresh, the human mind is much like it was 26 centuries ago (234). "Modern speculative optimism, with its perfectibility of the species, [promises the possibility of] the reign of peace. . ." (234). "The majority of us are neither pessimists or optimists." Good or evil [is] "affected by human action", essentially [most] all believe "evil can be diminished", by training our intellects and energies (235). Hastings contends that instincts "are the fundamental impulses of nutrition and sex, which Wundt contends, men and animals alike possess 'to form the inalienable foundation of human society as well as of animal association [Ethics: The Facts of Moral Life, p. 129].'" Moral concepts have their basis in feeling, not in reason;"(p. 624). Mutual aid is key, "Morality has arisen because it is socially useful" (p. 624)." . . . the social animal must be altruistic if the herd is to survive; its tendencies towards self-regardfulness are restrained by communal action whose one end is the common weal" (p. 625).

Problems arise with Hastings' notion in that, first there is no evidence from nature. Generally social herd animals will not sacrifice their own lives for the sake of their young or the elderly of their group. Normal behavior for them is to run, and protect themselves primarily. Secondly, what part does instinct play in herd behavior, rather than conscious altruism? From our study of "social" animals, instinct and perhaps some intelligence (as in primates or dolphins) dominate their behaviours but none of these "intelligent" animals will sacrifice its own life to save another of its group. Altruism appears to be only a human characteristic.

Isaacs " suggested that morality emerged as a parameter of animal behavior as a consequence of the conflict between gregarious and predacious motivations. Man became the 'ethical animal' because of his biological dependence upon social organization and human morality is essentially a rationally formulated code of behavior which must exist between members of a community if that community is to survive" (Isaacs, pp. 182-183). But ants, bats, monkeys, et. al. did not become ethical though they obviously have biological dependence upon social organization. Why didn't they develop morality? Not all

codes are rationally based or not based on what one group considers rational such as Geneva in the Reformation, monastic orders, Islam, cannibalistic tribes, and a host of others.

Bertrand Russell believed that "other moral rules, such as the prohibitions of murder and theft, have a more obvious social utility, and survive the decay of the primitive theological systems with which they were originally associated. But as men grow more reflective there is a tendency to lay less stress on rules and more on states of mind…. All the great mystics… what they value is a state of mind, out of which, as they hold, right conduct must ensue; rules seem to them external, and insufficiently adaptable to circumstances" (Russell, p. 224). Some cultures have valued what Western society calls murder and theft, i.e. American Indians, South American tribes, Nazis, etc. Also "primitive" is a prejudiced word, assuming a cultural, technological inferiority, as well as a certain lack of a "civilizing" factor. Such categories are not only prejudicial but assume that certain cultures (Western) have evolved at a higher level and serve as the example for all other cultural values. Russell makes a good comment on state of mind, if he means that which within emerges as "character," a personal rather than societal behaviour.

Penrose asserts that "the issue of 'responsibility' raises deep philosophical questions concerning the ultimate causes of our behavior. It might well be argued that each of our actions is ultimately determined by our inheritance and by our environment – or else by those numerous chance factors that continually affect our lives … is there actually something else – a 'self' lying beyond all such influences – which exerts a control over our actions? The legal issue of 'responsibility' seems to imply that there is indeed, within each one of us, some kind of an independent 'self' with its own responsibilities – and by implication, rights – whose actions are not attributable to inheritance, environment, or chance" (Penrose, p.36). As an example, Westaway suggests that "all authorities concur in maintaining, for example, that it is wrong to commit murder. But one philosopher tells us that it is wrong because it is inconsistent with the happiness of mankind, another tells us that it is wrong because it is contrary to the dictates of conscience, a third because it is against the commandments of God, a fourth because it leads to the gallows. Now how are we to account for this curious mixture… the strange variety exhibited in … these various systems…. Why does not as great a divergence manifest itself in the results arrived at as we undoubtedly find the methods employed?" (Westaway, p.). Indeed, why are there not as great a variety in the criminal actions themselves? Why isn't murder condoned in some philosophies, as it has in some cultures? As well, this understanding that there is the idea of good and bad, only in humans, causes some consternation with evolutionary development, as does the fact that the variety suggest choice rather than purely convenience or practicality. If the process is effective and morality

makes a species more fit to survive, why the lack of consistency in value? And yet why the consistency that there is such a thing as morality?

The Weakness of the Cosmic Process

Huxley, though an adherent of evolution, considered the Cosmic Process inadequate to provide sufficient abilities for human to act morally. He insisted that the moral and immoral sentiments have both naturally developed. "The thief and the murderer follow nature just as much as the philanthropist" (235). But such natural development now needs adjustment. "Cosmic evolution may teach us how the good and the evil tendencies of man may have come about, but, in itself, it is incompetent to furnish any better reason why what we call good , is preferable to what we call evil than we had before .. . but all the understanding in the world will neither increase nor diminish the force of the intuition that this is beautiful and that is ugly" (235). It is a fallacy that evolution advanced biologically and "men as ethical beings must yield to the same process to help them towards perfection" (235). Clearly, for Huxley, evolution did not resolve the issue of human animal behaviour, the problem of evil. All Richard Dawkins would support was protection of so-called scientific truth from deliberate libel against it (pp.40-42). "At present, we get away with our flagrant specieism because the evolutionary intermediates between us and chimpanzees are all extinct" (Dawkins, p. 135). That's a huge assumption based on no fact. Dawkins is pro-life but not pro-human life. Specieism assumes human life is most valuable species of life (p. 135).

Gribbin asks the important question. "If the universe was 'born' and is changing and will die, how can evolution be an improvement? Or a development? (Gribbin, p. 7). Milton echoes Gribbin's concern that the Cosmic Process, if such a prominent actor in the drama of life, should be able to account for what we see or expect to see in the world. "Do we really believe that black people are black by accident? What kind of accident was it? Why don't we see such accidents happening today? Why does the fossil record not show us such accidents happening in the past? …if we don't see genetic mutations – the accidents of inheritance – because they are very rare, then how can there have been enough of them to produce anything as complex as humans? (Richard Milton, p.10). That question may answer Gribbin's important issue. The Cosmic Process cannot be seen to be at work today. Huxley's concern that the weakness of the Cosmic Process actually seems to counter his support of it. The evidence of a continual "process" appears to be lacking.

Jones equates Darwinian evolution with variation, change within species on the domesticated level, i.e. pigeon to pouter to runt to turbit, but these are still birds. There genetic changes required a mind, a design, of a human being to achieve. There is no evidence brought forth to demonstrate pigeon reptile (Jones, pp.28-51). "Natural variation, the raw material of evolutionary change" (p. 55).

But this can't be demonstrated; no transitional forms exist, no modern observation has demonstrated a complete macro-evolutionary change. Biological classification is arbitrary anyway, from Aristotle; some human being must " recognize relationships, even to assume that, such as panda to raccoon (now no longer recognized by 2009). Genes are the way to categorize, as Jones does on p. 59, but even then the groupings are arbitrarily decided. "We may agree that all species of living things can do for themselves all that is necessary for their preservation, and can adapt themselves to circumstances. Some can do it better than others; but there comes a time when all their efforts are unavailing and the species either perishes or only a small remnant survives, perhaps by reason of some modification, down to a later period" (Migeod, p.16).

Perhaps it is simply a perception problem, as Gullberg suggests in a discussion of mathematics. "There is no such thing as only one unassailable, mathematically true, geometry. From a mathematical viewpoint, any geometry – or any other branch of mathematics – that does not produce contradictions is acceptable. Another matter of concern is, however, to find the geometry that gives the most accurate representation of the physical world" (Gullberg, p.384). Indeed, an accurate representation of the physical world should be the goal of all science. But all systems and theories to date have failed in one way or another to give the whole picture. Hence the continued search for the ultimate element from which all things are made. That science seems to have proposed to have achieved the absolutes of reality has not enjoyed the popular approval in the 21st century that appeared to be so in the early 20th. Howard revealed that "many people no longer trust modernity. People still believe but not want to belong to institutions. They distrust authority (even scientific authority) as a source of truth. They want a more personalized intuitive approach" (Howard, p.273). Modernity did not "work" for postmoderns. Problems exist for them that modern science cannot resolve, as they perceived to be promised in the 20th century. Societies seem to be less societal and more individual. Ethics must be efficacious or at least applicable for everyone, in spite of the narcissistic philosophy prominent in so many postmodern perspectives.

Man can modify the Cosmic Process through reason and science

Huxley's hope was that the deficiencies of the evolutionary process could be overcome by the efforts of humanity. Science through reason has the power to loft humanity above the animal nature and develop temperate and benevolent societies. "The history of civilization details the steps by which men have succeeded in building up an artificial world within the cosmos. Huxley recognized that societies and their governments have laws to resist the "natural" aspects of human behaviour. (a). In every family, in every polity that has been established, the cosmic process in man has been restrained, and otherwise modified by law and custom. Further, Huxley considered science and art to have been the vehicles for this constructed superiority over evil actions. (b). "The organized and highly

developed sciences and arts of the present day have endowed man with a command over the course of non-human nature greater that that once attributed to the magicians" (237). “The point is that knowledge in general and science in particular does not consist of abstract but of manmade ideas, all the way from its beginnings to its modern and idiosyncratic models. Therefore the underlying concepts that unlock nature must be shown to arise early and in the simplest cultures of man from his basic and specific faculties. And the development of science which joins them in more and more complex conjunctions must be seen to be equally human: discoveries are made by men, not merely minds, so that they are alive and charged with individuality” (Bronowski, pp.13-14). “Science has no methods for deciding what is ethical” (Dawkins, p.39). Russell also perceived the same perspective,“…the fact that science has nothing to say about ‘values.’ This I admit” (Russell, p.223).

Carl Hempel accepts that “to explain the phenomena of the physical world is one of the primary objectives of the natural sciences… the purpose of science, which after all, is concerned to develop a conception of the world that has a clear, logical bearing on our experience and is thus (47) capable of objective test. Scientific explanations must, for this reason, meet two systematic requirements, which will be called the requirement of explanatory relevance and the requirement of testability” (Hempel, p. 48). Toulmin’s critique allows that “certainly, every statement in a science should conceivably be capable of being called in question, and of being shown empirically to be unjustified; for only so can the science be saved from dogmatism” (Toulmin, p.81). “Now and then there may have to be second thoughts about matters which had been thought to be settled, but when this happens, and the lower courses have to be altered, the superstructure has to be knocked down too, and a batch of concepts in terms of which the scientist’s working problems used to be stated – ‘phlogiston’ and the like – will be swept into the pages of history books” (p. 81). “If we interpret the idea of ‘the uniformity of nature’ in this particular way, the only question is, whether we should not replace it entirely by the idea of the uniformity of scientific procedures. Perhaps we ought” (p. 154).

Part Two: Ethical Man Overcomes Evolution

Evolution is the enemy of man’s ethical nature

Huxley goes so far as to declare evolution as the enemy of morality, that evolution promotes the animal nature of humans and cannot resolve the problem of evil naturally.

(a). The theory of evolution encourages no hope for the solution of "curbing the instincts of savagery in civilized men."

(b). Only the developed intelligence of men can "change the nature of man himself."

(c). We have "emerged from the heroic childhood of our race" and now must "strive in one faith towards one hope", our hearts "set on diminishing it" [evil in society] (238).

Social progress means checking the Cosmic Process.

If humans propose to overcome evil and selfishness in society, evolution must be restrained and restricted. “Social progress means a checking of the cosmic process at every step and the substitution for it of another, which may be called the ethical process; the end of which is not the survival of those who happen to be the fittest,... but of those who are ethically the best. Ethically best is the practice that involves a course of conduct which, in all respects, is opposed to that which leads to success in the cosmic struggle for existence."

(a). "In place of ruthless self-assertion it demands self-restraint;

(b). In place of... treading down all competitors, it requires that the individual shall not merely respect but shall help his fellows;

(c). It repudiates the gladiatorial theory of existence";

Laws and moral concepts try to curb the Cosmic Process

The existence of laws and our human sense of morality indicate that we have been trying in history to resist evolution. "Laws and moral precepts are directed to the end of curbing the cosmic process, reminding the individual of his duty to the community, to the protection and influence of which he owes, if not existence itself, at the least the life of something better than a brutal savage" (236). "Neglect of these considerations attempts to apply the analogy of cosmic nature [evolution] to society, a misapplication of the stoical injunction to follow nature; the duties of the individual to the state are forgotten and his tendencies to self-assertion are dignified by the name of rights" (237).

As a secondary point, Huxley even doubts the explanation of evolution that had been given at the time. Perhaps something had been left out or ignored or misunderstood. "If that which I have insisted upon is true; if the cosmic process has no sort of relation to moral ends; if the imitation of it by man is inconsistent with the first principles of ethics; what becomes of this surprising theory?" (237).

Part Three -- Huxley's Conclusion

Evolution is inexorable; it can’t be stopped from its ultimate goal.

Still, Huxley believes that evolution marches on its way, and cannot be stopped, insomuch as the earth has a certain ultimate destiny. He does not appear to be one of the philosophers who held to an eternal universe idea, which does Huxley credit, since Einstein and the Big Bang, later in scientific

history, demonstrated that indeed the universe had a beginning and an expected end. "The theory of evolution encourages no millennial anticipations. If, for millions of years, our globe has taken the upward road, yet, sometime, the summit will be reached and the downward route will be commenced." Human intelligence and ability cannot stop this progression (238).

"Moreover, the cosmic nature born with us and, to a large extent, necessary for our maintenance, is the outcome of millions of years of severe training, and it would be folly to imagine that a few centuries will suffice to subdue its masterfulness to purely ethical ends. Ethical nature may count upon having to reckon with a tenacious and powerful enemy as long as the world lasts" (238).

The progress of human society depends on successfully combating the Cosmic Process

Huxley therefore calls for the best efforts of humanity despite the evolutionary opposition or we shall continue to be afflicted with social evil and needless human suffering. His main point of the entire essay then is that "... the ethical progress of society depends, not on imitating the cosmic process, still less in running away from it, but in combating it" (p. 237).

Man can change the world to repress his basic savagery

Huxley's optimism reflects his confidence that humans can succeed in this war on evolution. "But on the other hand, I see no limit to the extent to which intelligence and will, guided by sound principles of investigation, and organized in common effort, may modify the conditions of existence, for a period longer than that now covered by history. And much may be done to change the nature of man himself "(238). It "ought to be able to do something towards curbing the instincts of savagery in civilized men" (238).

Critique of Huxley's Views

Part One: The Weaknesses of the Cosmic Process

1. The Cosmic Process as an explanation of the origin and development of life may not be valid.
2. Survival of the fittest may not be a valid explanation of the behaviour of humans.
3. Objective moral principles may not be the result of human evolutionary development.
4. The Cosmic Process as a theory of development of life may indeed have weaknesses.
5. The Cosmic Process may not be amendable by any natural force.

There are several logical problems that could arise in considering the notion of evolution of species based on natural selection and the survival of the fittest.

The first issue that arises is the instinct to survive itself. Why does any species have an instinct for survival? What made survival the driving force of life? We assume that survival is a desire, drive, or force that pushes the species to compete for resources, but that drive appears to be inclusive of all species. It is conceivable and logical to conclude that a random process would not necessarily produce such an attitude or instinct in every species of living things. Life could have been simply the fact of existence without "drives." We assume instincts for such because that's what we think we see in the natural order. Another major problem is death. If an impersonal, physical/chemical force can create life, why would it also create death? Death is not logically a necessary corollary to life. As well, why doesn't this life-creating force continue to create life today? Evolution cannot answer these objections satisfactorily.

Secondly, we also assume that this drive to survive includes aggressive competition for life resources. But why would competition be a force in random selection rather than something else? Wouldn't life itself, very existence, be sufficient as a result of evolution? Logically, if a force of some kind brought life into nonliving matter, the very fact of existence would satisfy the theoretical necessity. The things that then lived, would simply live and then die; even with a desire to survive, the species could have simply adapted to eat whatever was there, including such things as air and water. Why would it be necessary that food for animals be species specific, if the life developed randomly, without order or purpose? Logically there would have to have been some pre-existing force that required evolution to move in such a definitive direction.

Third, what made animals compete? What makes one species 'fight' another for existence of that species? What is there about the Cosmic Process that requires aggression? We assume aggression, fighting, ruthless conflict to be natural yet if species evolved randomly, logic dictates that some other means could have appeared such as sharing or moving from one location to another when scarcity came or simply dying without struggle. How would one species "know" to kill and eat another one for the first time? We conjecture that a randomly created being would also not know purpose, i.e. to survive, to compete, to reproduce. To simply assume that the random process would build these "instincts" into the beings, is a large presupposition that implies purpose.

Why is there violence in the Cosmic Process? There can be also questioned the whole idea of carnivorousness. Some species eat plants and yet some eat other animals. There is no imperative in evolutionary theory that requires eating of flesh. If life is assumed to have been at first single celled and

then gradually multi-celled, there does not seem to be an absolute notion that violent conflict would have been necessary. How would it be better, more advantageous and therefore fitter, for an animal to eat other animals than to eat plants? If all life came from ocean water, we could just as well assume that life would survive on ocean elements and chemical nutrients.

Fourth, another problem is reproduction. The notion of reproduction itself is not required logically for life to have existed by chemical means. The chemical/energy process itself could have simply made more beings. In fact, that idea is more logical and less complicated that a competing environment that involves a complex system of species competition. The idea of sexuality and gender does not appear to be the logical outcome of chemical creation of life. Even complex beings could just as well have multiplied like the simple celled animals, by cellular division.

Fifth, there is in the Cosmic Process the assumed notion that animals seem to care that they survived. Otherwise there is no reason for an instinct for survival to develop. We look at the natural order and, because we care about our own existence, we superimpose on the animals and plants a desire, a force, that makes them try to survive. We see them fight and kill, and we assume it is for survival sake, but that could also be simply the way they are. They fight and kill because that is their nature or that they do those things without purpose, just because that is the nature of life. We so like to personify our own values and thoughts on the animals world when life may just be by nature violent and heartless. Natural randomness doesn't answer these questions. Random purposeless pointless life logically doesn't lead to competition and the purpose of perpetuating and the need to exist. How would it know that survival was the greatest value? How would it know self-interest, and to compete, kill, or defeat another "competitor"? We're assuming a built-in drive to survive but there is no evidence or logic to convince that the drive must be there at all. I think we can call into question the description of evolution as defined by Darwin that requires complex processes when simple ones would have done just as well for life to exist. What we see in the animal and plant world does not necessarily reflect a logical picture of a chemically based, purposeless random selection of life.

Many evolutionary theorists, including Huxley, attribute man's success of survival to organization, though there are other species who also organize yet without the development that leads to superior species. Huxley as well decries the process by which man has succeeded by claiming that it has or will let us down now that we claim to be civilized. Huxley rejects the cosmic process as the future hope, assuming that we now know better than the principle upon which all life process and human development heretofore has depended for millions of years. What are these conditions, especially since they appear to change? Utilitarian? That has been rejected since Nazism. No evolutionary progress? That idea seemed to be destroyed by the 1920s and the Great War.

Evolutionary geneticist H. Allen Orr says that "we haven't a shred of evidence that morality did or did not evolve by natural selection" (in Pearcey, p. 56). Pearcey continues that "The force of sheer logic became clear a few years ago when a book came out called *The Natural History of Rape*. The authors made the disturbing claim that rape is not a pathology, biologically speaking, but is an evolutionary adaptation for maximizing reproductive success, . . . the 'product of the human evolutionary heritage'" (pp. 56, 59). Such a conclusion would support Huxley's claim that the Cosmic Process must be overcome but clearly indicates that the Cosmic Process itself did not develop the notion of morality.

So if evolution changes or man changes the essential nature of evolution changes or results, it will become something other than fittest or natural selection; the force of change will become the will of man. Is that not contrary to the cosmic process? Will that not change the whole destiny and process of development in the universe? Is that not immoral in itself?

Part Two: Future Uncertainty

1. Evolution may not be the enemy of man's ethical nature.
2. Checking the Cosmic Process may not result in social progress.
3. Laws and moral principles may not curb the Cosmic Process.

"And if nature can produce such rich diversity as the present animal and plant kingdoms by pure chance, why is it that thousands of years of serious guided selection by mankind has resulted only in trivial sub-specific variation of domestic plants and animals, while not one new species has been created?" (Richard Milton, p. 11). "Watch a bird building a nest. Is the bird methodical? Undoubtedly. Is it working according to a plan? Apparently. Then is it intelligent? Hardly, for it is simply repeating exactly what innumerable generations of its ancestors have done before. Its method never varies. It is customary to say that the bird is acting in accordance with instinct, but what is instinct? We do not know, though people who use the term seem to suggest that instinct is something inherited" (Westaway, p. 33). "That within their own province scientific methods are perfectly sound cannot be denied. But those methods are quite useless in any exploration of human actions or human motives, except in their primary demand for bed-rock facts" (Westaway, p. 50). "Ask any half dozen intelligent friends to write down definitions of the common terms truth, goodness, beauty. The differences will be amazing. . . beauty may be thought of subjectively or objectively. There will be no agreement about the true essence of any one of them. And here scientific method can give no help" (Westaway, p. 50). "Needless to say, humanists are evolutionists believing that the future evolution of this planet rests in our own hands. To guide us in this task, and also in our personal life, humanists teach that we need values. And where do

these values come from? Well, according to the British Humanist Association's introduction to humanism called the Humanist Perspective, these values were 'discovered during evolution' and 'such values include telling the truth, being honest, accepting responsibility, playing fair, cooperation for the common good, and caring for others.' One wonders whether the author of this paper has ever heard of evolutionary concepts such as 'the survival of the fittest' or 'the selfish gene'! (White, p. 14). "Now the theory of evolution teaches that human beings are the product of chance natural processes without the intervention of any supernatural agent. Furthermore, some argue that if we are just animals, the result of random natural processes, then why should abortion, or even euthanasia, be considered wrong? Putting to death an unwanted puppy or kitten is not considered immoral, so why is it wrong for an unwanted unborn child …or a old sick person?" (White, p. 15).

Huxley's Conclusion

1. Evolution's progress toward its ultimate goal cannot be stopped.

This is an assumption of downwardness; thus evolution will eventually be destructive, i.e the Big Implosion. Nothing anyone can do to stop this. Why would evolutionists care to stop it or to live differently now than what is supposedly destined for all life? Yet they do care; they insist on morality of some kind, particularly protection of themselves from crime and war. But if morality doesn't really mean anything for selfish survival, why would anyone object to a culture that wants to survive more than other cultures? Why isn't it acceptable for a totalitarian regime to conquer the world and oppress the "weaker" people groups if that makes them the "fittest"? So said Nietzsche in the 19th century. It's wrong because deep inside every person is the awareness that people are not just animals on the food chain and we all have some sense of morality, a God-given capacity, an innate recognition of right and wrong. John Gribbin, PhD, Science Journalist, BBC "That puzzle is brought home with full force by the light of the sun in the daytime. This represents an imbalance in the universe, a situation in which there is a local deviation from equilibrium. It is a fundamental feature of the world that things tend towards equilibrium" (Gribbin, p. 6). "No one, so far as I know, has ever claimed to have seen a species created. Neither has anyone seen a species evolved from other species (Migeod, p. 19). It is significant that neither in ancient nor in modern times is there any instance of the merging of one species into another collateral species, and so on into another by means of slight gradations or variations. For instance, we see pygmy elephants alongside great elephants but there is no merging (p. 19). I make this statement following a number of writers, but there is in fact no evidence whatever to show that the individual in any given species was in any way smaller in the early days of the species

than it was at the time of the extinction of that species, or that there was any material difference in the species at its end from what it was at its beginning (Migeod, p. 20). "If we consider the mineral world: there is no evolution there. Each metal or precious stone is itself and nothing else. One does not descend from another. One does not merge into the other. There was a separate and sudden appearance of each into the world, and, evidently, in many places at once. It is hard not to call this process creation" (Migeod, p. 105). Huxley's main conclusion is that, "the ethical process of society depends not on initiating the Cosmic Process. . . but in combating it"(p. 237). And in so doing, change the essential nature of man, that through our intelligence, "be able to do something towards curbing the instincts of savagery in civilized man" (p. 238), i.e. resolve the problem of evil that men perpetuate on themselves and become ethically good." "Aristotle, Greek philosopher and scientist, pupil of Plato, who was a pupil of Socrates, held that any logical argument could be reduced to two premises and a conclusion, and laid down in three basic laws, or principles, of logical reasoning, often referred to as classical logic or Aristotelian logic:

1. The principle of identity. A thing is itself: A is A.
2. The principle of the excluded middle. A proposition is either true or false: Either A or not A.
3. The principle of contradiction. No proposition can be both true and false: A cannot be A and not A" (Gullberg, p. 216).

Huxley's argument may fall into the trap of the principle of contradiction, since he believed that the Cosmic Process was the force that brought life into being and directed it over time to evolve, and then tries to defend a concentrated, rational effort on the part of humans to resist the Process for the sake of morality. He seems to say that, because the Cosmic Process logically brings pain and suffering to all life, and we do not like such pain and suffering, we should develop practices that contradict the Process. So morality then becomes an accommodation to personal preferences, nearly a utilitarian goal of pleasure over pain because we can, rather than because there is some real meaning to morality. Howard says, "certainly, moral absolutes seem best tempered according to the situation. Generally they should come from within, then be tested by our friends. We can only ever have partial knowledge of good and evil, but few would see genocide, paedophilia, environmental destruction, or greed as good." On the contrary, good cases can be made that in history many nations and governments with the consent of a majority of their citizens, have approved of genocide. Capitalism is built on greed, the desire to possess as many material possessions as possible, preferably more than the neighbors. Starving people have no problem destroying certain parts of the environment to use it for obtaining goods, as in some areas of rainforests. Some ancient cultures, such

as in Greece and Rome, exhibited societal approval of paedophilia. Friends tend to have common goals and perspectives. "Testing" ethics on them will only get basic approvals of these goals such as in Nazism, Stalinism, Maoism, and Japanese atrocities in World War II. Situation ethics has already proven to be an undependable and unstable system for societies. Rules keep changing with every change in leadership or law. Postmodernists distrust modernity because science didn't resolve the basic problems of human society, as some people expected, nor provide all the desired moral results that were claimed. "Undoubtedly the most hopeful prospect for psycho-social evolution is this trend towards more compassion both in the formulation and the enforcement of moral systems. Or … man is slowly learning that his survival depends on his ability to use reason to encourage his sympathetic emotions, and to suppress those which are antisympathetic" (Alan Isaacs, p. 193). Social evolution is better with compassion? Is postmodernism more compassionate than modernism? We are having more conflict now because of emotions; our reason is now being used to encourage agreement and stability. Our "sympathetic" emotions result in narcissism, incoherent, incongruent, and intolerant behaviors and philosophies. Walsh concurs that science itself is greatly affected by the societal trends of the times. "Cogent reasons of intellect and scholarship have been suggested for pursuing…a resolution of the case … Compelling is one reason in particular: the rare chance afforded to learn more about the interior process of science in itself and in its relation to society. Especially relevant is a third reason, uncovering the pernicious effect on science of fashionable ideas, the degree to which a prevailing paradigm may influence and even dominate not only thinking but discovery" (John Walsh, p. xx). Without a standard of morality that extends beyond the current trends of society or is considered higher than individual emotive choices, societies are victims of merely personal preferences which can be anything.

Man can change the world by repressing his savagery

Why bother? If evolution is true and life is meaningless, who cares if man is "savage," meaning just like the animals only "fitter"? Why does Huxley or any evolutionist feel the need to rebel against the Cosmic Process? Why are there ethics at all? Not for societal benefit – the natural world functions without ethics and some animals are highly societal. Without ethics life would be brutal, merciless, and vicious, like the animal world (as we perceive it) without emotion, caring ,love, or compassion, which we must have or life is total hell. We will not live that way. Why not? Why does that notion bother us, if evolution is the norm and the natural?

Roland Howard implies a certain guilt in news and entertainment media that "the media as a meaning-making machine which idealizes wealth,

romance, excitement, and immediate gratification and which shows life as a series of intense experiences seems to having an effect on virtually all forms of spirituality" (p. 272), not to mention paradigms of life and societal values. Huxley's relative, Julian Huxley, said that "first and foremost come the consequences of evolution and its acceptance. If man's body has evolved, then so has his mind. Our mental powers are not only relative, developed in adaptive relation to the world around us, but there is no reason whatever supposing them in any way complete" (p. 59). But what compels one group of people to refrain from annihilating another group who is competing with them for resources, as is claimed regarding animals? Why do we have emotional compassion for others? To be sure we survive in a world of limited resources, why do we not highly value abilities and attitudes that result in dominance of one group over another. Nazism would be the most obvious philosophy to adopt, which sought to eliminate weaker groups and to enhance and perpetuate one group. Yet we clearly see a repugnance of such paradigms and seek to rid the world of such "extreme" notions. Why would anyone do that if humans' minds evolved along with our bodies? We should see more and more effect ways to use our minds to eliminate competitors. "For, in the main, social morality relies upon the exploitation of reason and the subjugation of emotion. In theory, therefore, such a system should reflect the best interests of the majority. The purely secular society therefore suffers from the disadvantage that it has to sacrifice an undue proportion of individual freedom in order to impose its legislation. This will be so no matter how sensibly it has tried to arrange for the suppression of greed in the common good. These secular societies, therefore, are always in danger of becoming police states" (Isaacs, pp. 188-189). But, in evolutionary terms, why wouldn't a police state be satisfactory if that would bring about the proper survival of the fittest? Minorities, by definition, are fewer and therefore weaker and more likely to be the groups that will not survive. We clearly see that such a philosophy is intolerable but are reluctant to blame evolutionary ideas, as Huxley does, for promoting the survival of the fittest in human society. Penrose agrees that "as we open our newspapers or watch our television screens, we seem to be continually assaulted by the fruits of Mankind's stupidity [warfare, unrest, violence, conflict, squandered prosperity]. Though we believe ourselves to represent the pinnacle of intelligence in the animal kingdom, this intelligence seems sadly inadequate to handle many of the problems that our own society continues to confront us with. Thus, not only does our technology provide us with an enormous expansion of the scope of our physical selves, but it also expands our mental capabilities by greatly improving upon our abilities to perform many routine tasks. What about mental tasks that are not routine – tasks that require genuine intelligence?" (Penrose, pp. 8-9). What is "genuine intelligence"? Is intelligence the key to unlocking the highest values of evolution – survival? If it is, then the *use* of intelligence should be highly

significant, beyond gathering food, selecting the strongest mates, or finding ways to protect ourselves. Intelligence must include more than cleverness or technological inventiveness but must as well be comprised of a lack of Penrose's concern with stupidity and more of Isaac's emotive values. Could this concern be defined as sensibility, the reasonable awareness that all people have value beyond the survival of the fittest? If so, we must define intelligence as anti-Cosmic Process, as Huxley has done.

Teilhard insisted that "for some two hundred thousand years or more, we agreed, mankind as a whole has not ceased to advance in the direction of higher cerebralisation and closer socialization. Human brains have reached the limit of anthropogenesis but the areas still open are collective cerebralisation or socialization. Forces are making us more in common. In the case of man, therefore, collectivization, super-socialisation, can only mean super-personalisation; in other words it ultimately means (since only the forces of love have the property of personalizing by uniting) sympathy and unanimity. It is in the direction and in the form of a single 'heart' that we must look for our picture of super-mankind, rather than in that of a single brain" (pp. 157-160). Teilhard assumes that the emotional quotient is the ultimate evolution, that socialization depends on the emotive unity of humanity. These conditions have yet to be demonstrated in society. Rather, forces like religiosity, politics, economics, and ideology have made more significant inroads into social development, which cannot be called development in any real sense. Human societies have not improved the human condition much, even with technology. We still have an inclination to cruelty and self-destruction. The super-socialization of our collective 'heart' seems more remote every year. Yet our non-unity has not been aimed at a complete recognition of survival of the fittest, rather a survival of the clever, the selfish, the best funded, whether intelligent or not, from Penrose's definition. We are more segmented rather than globally similar and divided rather than united. Teilhard also assumes that a 'single heart' is more highly evolved than the 'single brain' and reason is inferior to emotion in evolutionary survival terms, though historically and even today, no such paradigm.

Conclusions

Kluger refutes the notion that sociobiology or genes control us with his study of the brain. "Specialized neurons are being found [in the brain] that allow us to mirror the behavior of people around us, helping us learn such primal skills as walking and eating as well as how to become social, ethical beings" (p.39). Gorman adds to the contradiction of sociobiology that "…the underlying principle remains. When too many of the rules change, when what used to work doesn't anymore, your ability to reason takes a hit. Just being aware of your nervous system's built-in bias toward learned helplessness in the face of unrelieved stress can help you identify and develop healthy habits that

will buffer at least some of the load" (p. 59). There has been no evidence that genetic information, intent on survival, adjust to changing "rules' such that the previous information can be altered to fit new situations.

Pinker's notion is that science, locating sentience in the brain, will destroy the social idea of soul, separate from physical brain, which will then eliminate our belief that we are free agents responsible for our choices (p. 48). For all our efforts to that end in the study of the brain, postmodern society has turned against such a "scientific" notion and focused even more on the passions of the soul as the "real" locus of person. Pinker's utopian empathy that all people will exhibit when distinctions and differences are removed fails to consider the importance of the non-physical in humanity from which we draw our notions of ethics and morality. Wright confirms this idea. "We like to think our views on right and wrong are rational…but ultimately they are grounded in emotion" (p. 49).

Clearly, even evolutionists like Huxley sensed the rightness of morality, law and order in society, protection of children, peace in community with other persons, protection of property, and freedom. Evolution, according to Darwin, was heartless, mechanical, and meaningless. Huxley and others of his persuasion recognized that life must have meaning and must have other senses than survival. Evolution did not, and does not, provide the necessary explanations for these logical problems.

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