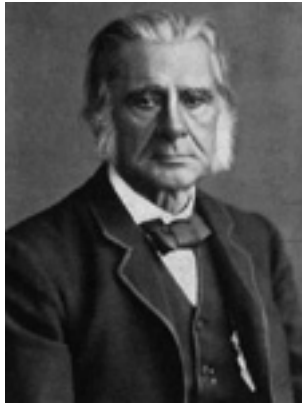


“Ethics Opposes the Biological Struggle for Existence” by T. H. Huxley

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T. H. Huxley (adapted from Lock & Whitfield Studio, London, circa 1880)

About the author...

Thomas Henry Huxley was born near London and, for the most part, self-educated. After several medical apprenticeships in his teens, Huxley joined the Royal Navy and served as a surgeon's mate on the HMS Rattlesnake. During the voyage to Australia and New Guinea, his discoveries in marine biology, especially his work with invertebrates, won his election to the Royal Society. Following his appointment to the Royal School of Mines as a Professor of Natural History, Huxley became close friends with Charles Darwin. As Darwin reluctantly published his research, Huxley enthusiastically cham-

pioneered his theory of evolution—as Huxley himself writes, “I chose to be Darwin’s bulldog.”¹ In the famous evolution debate of 1860 at Oxford, when his opponent, Samuel Wilberforce, Bishop of Oxford and professor of mathematics, posed the complex question, “Was it through his grandfather or his grandmother that he claimed his descent from a monkey?,” Huxley was said to reply he “was not ashamed to have a monkey for ancestor; but he would be ashamed to be connected with a man who used great gifts to obscure the truth.”² The term “agnostic” was coined by Huxley to mean the absence of belief one way or the other on an issue such the question remains open. H. L. Mencken observes, “All of us owe a vast debt to Huxley . . . for it was he, more than any other man, who worked that great change in human thought which marked the Nineteenth Century.”³

About the work . . .

In his Romanes Lecture entitled “Evolution and Ethics,”⁴ Huxley argues that the moral progress of civilization is not a product of the evolution of the natural world. The phrase “survival of the fittest” simply means the adaptation to current conditions, with no implication whatsoever of moral improvement. In point of fact, civil law, customs, and morals sustain those who are ethically best; moreover, science and the arts have been instrumental in opposing the natural condition of competition for survival. Huxley reasons that only man’s intelligence can effect modification of “the conditions of existence” and perhaps, as well, change mankind itself in order to stave off the natural circumstances of existence.

From the reading . . .

“[T]he practice of that which is ethically best . . . is opposed to that which leads to success in the cosmic struggle for existence.”

1. The epithet possibly derived from Huxley’s comment in a letter to Ernst Hæckel, the eminent German biologist, that “The dogs have been snapping at [Darwin’s] heels . . .” Thomas Henry Huxley, *Life and Letters of Thomas Henry Huxley* (London: D. Appleton, 1900), Vol. 1, 363.
2. “A Grandmother’ Tales,” *Macmillan’s Magazine* 78, no. 468, (October, 1898): 433-434.
3. H. L. Mencken, *A Second Mencken Chrestomathy*, ed. Terry Teachout (Baltimore: Johns Hopkins University Press, 1994), 158.
4. T. H. Huxley, “Evolution and Ethics,” Romanes Lecture in *Collected Essays* (London: Macmillan, 1893-4), Vol. 9, 46-116.

Ideas of Interest from *Evolution and Ethics*

1. What is the question Huxley intends to address in this reading? Specifically, what is the hypothesis Huxley intends to oppose?
2. Explain the two fallacies Huxley argues are committed by the proponents of the ethics of evolution.
3. Discuss the points of contrast Huxley draws between the practice of ethics and the process of the struggle for existence.
4. What is the distinction Huxley makes between the physical sciences and the biological and social sciences with respect to the ethical progress of society?
5. On what basis does Huxley believe the ethical progress of society will continue in opposition to the natural “cosmic process” of the survival of the fittest? How certain is he of the future ethical progress of civilization?

The Reading Selection from *Evolution and Ethics*

[Ethics, Not an Evolutionary Outcome]

Modern thought is making a fresh start from the base whence Indian and Greek philosophy set out; and, the human mind being very much what it was six-and-twenty centuries ago, there is no ground for wonder if it presents indications of a tendency to move along the old lines to the same results. . . . We also know of modern speculative optimism, with its perfectibility of the species, reign of peace, and lion and lamb transformation scenes; but one does not hear so much of it as one did forty years ago; indeed, I imagine it is to be met with more commonly at the tables of the healthy and wealthy, than in the congregations for the wise. . . .

Further, I think I do not err in assuming that, however diverse their views on philosophical and religious matters, most men are agreed that the proportion of good and evil in life may be thus increased, or diminished; and it would seem to follow that good must be similarly susceptible of addition or subtraction. Finally, to my knowledge, nobody professes to doubt that, so far forth as we possess a power of bettering things, it is our paramount duty to use it and to train all our intellect and energy to this supreme service of our kind.

Hence the pressing interest of the question, to what extent modern progress in natural knowledge, and, more especially, the general outcome of that progress in the doctrine of evolution, is competent to help us in the great work of helping one another?

From the reading...

“Cosmic evolution . . . is incompetent to furnish any better reason why what we call good is preferable to what we call evil . . .”

The propounders of what are called the ‘ethics of evolution’, when the ‘evolution of ethics’ would usually better express the object of their speculations, adduce a number of more or less interesting facts—and more or less sound arguments, in favour of the origin of the moral sentiments, in the same way as other natural phenomena, by a process of evolution. I have little doubt, for my own part, that they are on the right track; but as the immoral sentiments have no less been evolved, there is, so far, as much natural sanction for the one as the other. The thief and the murderer follow nature just as much as the philanthropist. 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. Some day, I doubt not, we shall arrive at an understanding of the evolution of the æsthetic faculty; 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.

[Ethics Is Not a Result of Biological Adaptation]

There is another fallacy which appears to me to pervade the so-called ‘ethics of evolution’. It is the notion that because, on the whole, animals and plants have advanced in perfection of organization by means of the struggle for existence and the consequent ‘survival of the fittest’; therefore men in society, men as ethical beings, must look to the same process to help them towards perfection. I suspect that this fallacy has arisen out of the unfortunate ambiguity of the phrase survival of the fittest.’ ‘Fittest’ has a connotation of ‘best’; and about ‘best’ there hangs a moral flavour. In cosmic nature, however, what is ‘fittest’ depends upon the conditions. Long since, I ventured to point out that if our hemisphere were to cool again, the survival of the fittest might bring about, in the vegetable kingdom, a population of more and more stunted and humbler and humbler organisms, until the ‘fittest’ that survived might be nothing but lichens, diatoms, and such microscopic organisms as

those which give red snow its colour; while, if it became hotter, the pleasant valleys of the Thames and Isis might be uninhabitable by any animated beings save those that flourish in a tropical jungle. They, as the fittest, the best adapted to the changed conditions, would survive.

From the reading...

“ I see no limit to the extent to which intelligence and will ... may modify the conditions of existence ... ”

Men in society are undoubtedly subject to the cosmic process. As among other animals, multiplication goes on without cessation, and involves severe competition for the means of support. The struggle for existence tends to eliminate those less fitted to adapt themselves to the circumstances of their existence. The strongest, the most self-assertive, tend to tread down the weaker. But the influence of the cosmic process on the evolution of society is the greater the more rudimentary its civilization. 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 may happen to be the fittest, in respect of the whole of the conditions which obtain, but of those who are ethically the best.

As I have already urged, the practice of that which is ethically best—what we call goodness or virtue—involves a course of conduct which, in all respects, is opposed to that which leads to success in the cosmic struggle for existence. In place of ruthless self-assertion it demands self-restraint; in place of thrusting aside, or treading down, all competitors, it requires that the individual shall not merely respect, but shall help his fellows; its influence is directed, not so much to the survival of the fittest, as to the fitting of as many as possible to survive. It repudiates the gladiatorial theory of existence. It demands that each man who enters into the enjoyment of the advantages of a polity shall be mindful of his debt to those who have laboriously constructed it; and shall take heed that no act of his weakens the fabric in which he has been permitted to live. Laws and moral precepts are directed to the end of curbing the cosmic process and reminding the individual of his duty to the community, to the protection and influence of which he owes, if not existence itself, at least the life of something better than a brutal savage.

It is from neglect of these plain considerations that the fanatical individualism of our time attempts to apply the analogy of cosmic nature to society. Once more we have 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. It is seriously debated whether the members of a community are justified in using their combined strength

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to constrain one of their number to contribute his share to the maintenance of it; or even to prevent him from doing his best to destroy it. The struggle for existence, which has done such admirable work in cosmic nature, must, it appears, be equally beneficent in the ethical sphere. Yet 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?

[Ethics Is In Opposition to Natural Processes]

Let us understand, once for all, that the ethical progress of society depends, not on imitating the cosmic process, still less in running away from it, but in combating it. It may seem an audacious proposal thus to pit the microcosm against the macrocosm and to set man to subdue nature to his higher ends; but I venture to think that the great intellectual difference between the ancient times with which we have been occupied and our day, lies in the solid foundation we have acquired for the hope that such an enterprise may meet with a certain measure of success.



Royal School of Mines (Kilby and Gayform circa 1911) Huxley served as Chair of Natural History at the Royal School of Mines for over thirty years.

The history of civilization details the steps by which men have succeeded in building up an artificial world within the cosmos. Fragile reed as he may be, man, as Pascal says, is a thinking reed: there lies within him a fund of energy,

operating intelligently and so far akin to that which pervades the universe, that it is competent to influence and modify the cosmic process. In virtue of his intelligence, the dwarf bends the Titan to his will. 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; in surrounding nature, it has been similarly influenced by the art of the shepherd, the agriculturist, the artisan. As civilization has advanced, so has the extent of this interference increased; until 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 than that once attributed to the magicians. The most impressive, I might say startling, of these changes have been brought about in the course of the last two centuries; while a right comprehension of the process of life and of the means of influencing its manifestations is only just dawning upon us. We do not yet see our way beyond generalities; and we are befogged by the obtrusion of false analogies and crude anticipations. But Astronomy, Physics, Chemistry, have all had to pass through similar phases, before they reached the stage at which their influence became an important factor in human affairs. Physiology, Psychology, Ethics, Political Science, must submit to the same ordeal. Yet it seems to me irrational to doubt that, at no distant period, they will work as great a revolution in the sphere of practice.

The theory of evolution encourages no millennial anticipations. If, for millions of years, our globe has taken the upward road, yet, some time, the summit will be reached and the downward route will be commenced. The most daring imagination will hardly venture upon the suggestion that the power and the intelligence of man can ever arrest the procession of the great year.

[The Hope for Ethical Progress]

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. 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. The intelligence which has converted the brother of the wolf into the faithful guardian of the flock ought to be able to do something towards curbing the instincts of savagery in civilized men.

But if we may permit ourselves a larger hope of abatement of the essential evil of the world than was possible to those who, in the infancy of exact

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knowledge, faced the problem of existence more than a score of centuries ago, I deem it as essential condition of the realization of that hope that we should cast aside the notion that the escape from pain and sorrow is the proper object of life.

We have long since emerged from the heroic childhood of our race, when good and evil could be met with the same ‘frolic welcome’;⁵ the attempts to escape from evil, whether Indian or Greek, have ended in flight from the battle-field; it remains to us to throw aside the youthful over-confidence and the no less youthful discouragement of nonage.

From the reading...

“[T]he cosmic nature born with us ... 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.”

Related Ideas

*The Huxley File*⁶ is created by Charles Blinderman and David Joyce of Clark University. Extensive essays and letters, photographs, and commentaries on T. H. Huxley’s works including his *Collected Essays*, *Scientific Memoirs*, and several other works.

Mitchell, P. Chalmers. *Thomas Henry Huxley: a sketch of his life and work*⁷ (New York: G. P. Putnam’s Sons, 1900). *Project Gutenberg* edition of Chalmers’ biography of Huxley.

*Project Gutenberg Titles by Thomas Henry Huxley*⁸ Over forty of Huxley’s works including essays, autobiography, letters, and science texts are provided in text form.

*Thomas Henry Huxley*⁹ The *Wikipedia*’s entry on Huxley summarizes his life and works.

5. A reference to the Homeric heroes who face the gods themselves as expressed in Alfred Lord Tennyson’s *Ulysses*: “Souls that have toil’d, and wrought, and thought with me— \ That ever with a frolic welcome took \ The thunder and the sunshine ...” where “thunder and sunshine” is a metaphor for the rise and fall of fortune. *Eds.*

6. *The Huxley File* (<http://aleph0.clarku.edu/huxley/>)

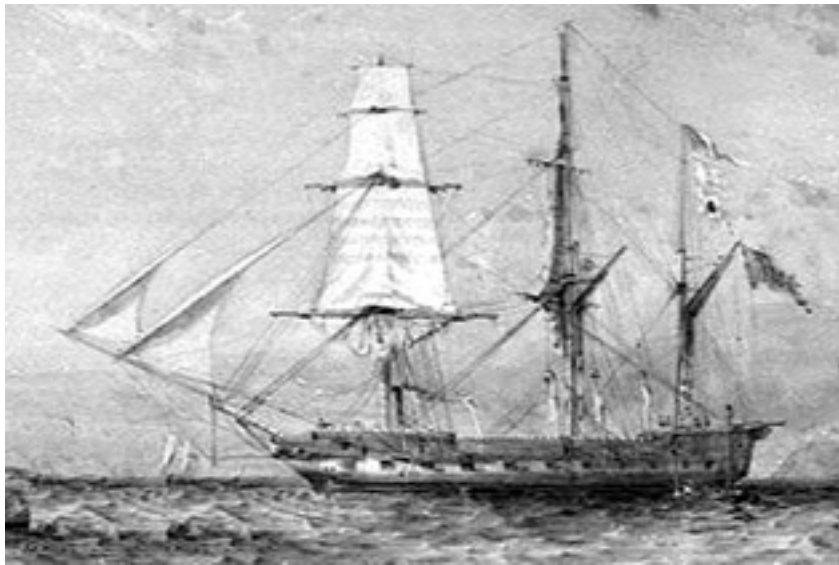
7. P. Chalmers Mitchell, *Thomas Henry Huxley* (<http://www.gutenberg.org/ebooks/16935>)

8. *Gutenberg Titles by Thomas Henry Huxley* (<http://onlinebooks.library.upenn.edu>)

9. *Thomas Henry Huxley* (http://en.wikipedia.org/wiki/Thomas_Henry_Huxley)

From the reading...

“[T]o what extent modern progress in natural knowledge, and, more especially, the general outcome of that progress in the doctrine of evolution, is competent to help us in the great work of helping one another?”



HMS Rattlesnake (adapted from a watercolor by Sir Oswald Walters Brierly, 1853, National Maritime Museum, London) Where, on a voyage to Australia as an assistant surgeon, Huxley studied marine invertebrates—studies for which he was elected a Fellow of the Royal Society upon his return.

Topics Worth Investigating

1. In this reading Huxley argues that human beings are subject to the struggle for existence, natural selection, and survival of the fittest. Yet, he sees social and moral progress as checking this “cosmic process” at every step. How do you think Huxley accounts for the survival of altruistic individuals individuals who would seem to be selected against by evolutionary processes? Discuss the current controversy over the theory of inclusive fitness in the contemporary evolutionary discussion of conflict

and cooperation.¹⁰

2. Clarify Huxley’s comparison of “the evolution of the æsthetic faculty” with the evolution of the moral faculty. What does he mean by implying that understanding does not affect the intuition of the good or the beautiful? Is Huxley anticipating G. E. Moore’s argument that good is a nonnatural property?¹¹
3. By Occam’s Razor isn’t it reasonable to suppose that the rise of civilization together with the moral progress in civilization is a result of a natural process? Isn’t mankind’s successes through intelligence and organization no different from the natural biological processes of other organisms? Why does Huxley suppose that civilization arose in opposition to nature?
4. Darwin asserts that the ethically best conduct is “not no such to the survival of the fittest, as to the fitting of as many as possible to survive.” Given that man is a social animal, as Aristotle remarks, can’t the argument be made that human beings survive best as social animals, where as Adam Smith observes, the pursuit of self-interest is socially beneficial.¹² Henry David Thoreau clearly made this point by stating, “There will never be a really free and enlightened State, until the State come to recognize the individual as a higher and independent power, from which all its own power and authority are derived . . .”¹³
5. Morality and legality involve prescriptive law, statements as to what should or ought to happen, whereas science involves descriptive law, statements as to what actually happens. Prescriptive laws can be violated or broken; descriptive laws have no exceptions. So then is it not contradictory for Huxley to suppose evolutionary processes are checked by the laws and customs of men?
6. Huxley points out astronomy, physics, and chemistry have furthered ethical progress in civilization. He then asserts that with their advancement, physiology, psychology, ethics, and political science had the potential

10. See, for example, Martin A. Nowak, Corina E. Tarnita, and Edward O. Wilson, “The Evolution of Eusociality,” *Nature* 466 (26 August 2010): 1057-1062, and William D. Hamilton, “The Genetical Evolution of Social Behavior” I and II *Journal of Theoretical Biology* 7 (1964) 1-16 and 17-52. Edward O. Wilson argued previously “As more complex social behaviour by the organism is added to the gene’s techniques for replicating themselves, altruism becomes increasingly prevalent and eventually appears in exaggerated forms.” E. O. Wilson, *Sociobiology: The New Synthesis* (Cambridge, Mass.: Harvard University Press, 1975), 3.

11. G. E. Moore, *Principia Ethica* (Cambridge: Cambridge University Press, 1903), 41.

12. “By pursuing his own interest, he frequently promotes that of the society more effectually than when he really intends to promote it.” Adam Smith, *An Inquiry Into the Nature and Causes of the Wealth of Nations* (Charleston: SC: BiblioLife, 2009), 184,

13. Henry David Thoreau, “On Civil Disobedience” in *Walden and Other Writings*, ed. Joseph Wood Krutch (New York: Bantam Dell 110.

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to effect a revolution in social life. Trace the major results in these sciences over the past hundred years and show whether Huxley was correct in concluding the application of the resultant explosion in knowledge in these sciences would provide “a revolution in practice.”

7. As almost an afterthought in the reading, Huxley adds to the hope for ethical progress by noting:

And much may be done to change the nature of man himself. The intelligence which has converted the brother of the wolf ought to be able to do something towards curbing the instincts of savagery in civilized men.

First, in light of the initial paragraph in our reading, does this passage imply T. H. Huxley would support the transhumanism of Julian Huxley (the prominent biologist and his grandson):

The human species can, if it wished, transcend itself—not just sporadically, an individual here in one way, an individual there in another way, but in its entirety, as humanity. We need a name for this new belief. Perhaps *transhumanism* will serve: man remaining man, but transcending himself, by realizing new possibilities of and for his human nature.¹⁴

Second, explain why, or why not, you think man’s nature could be shaped by the applications of scientific knowledge not only to evolve the nature of mankind into a state beyond what we now call a human being but also to advance his physical, mental, and moral capacities in a socially just manner while insuring individual rights?

8. Research and discuss the ethics of the various contemporary proposals, in Huxley’s words, “to change the nature of man”: transhumanism, abolitionism, extropianism, immortalism, postgenderism, eugenics.¹⁵

*

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<philhelp@gmail.com>

14. Julian Huxley, *New Bottles for New Wine* (London: Chatto & Windus, 1957), 13-17.

15. For useful summary definitions and list of references and sources see *Transhumanism* (<http://en.wikipedia.org/wiki/Transhumanism#Currents>) in the online *Wikipedia*.

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