

from Edwin Grant Conklin, "Science and the Faith of the Modern," *Scribner's Magazine* 78 (November 1925), 451-458.

Edwin Grant Conklin was Professor of Biology at Princeton University, and an outspoken advocate of evolution. In this essay written for a popular audience, he challenges the idea that there is any antagonism between religion and science, arguing that both are necessary to modern life.

... Fundamentalism, if logical, would demand the abolition of the teaching of all science and scientific methods, for science in general and not merely the theory of evolution is responsible for the loss of faith in the old traditions. It is folly to attempt to promote education and science and at the same time to forbid the teaching of the principal methods and results of science. The only sensible course would be to abolish altogether the teaching of science and scientific methods and to return to ecclesiasticism. The Church once told scientists what they could think and now state legislatures propose to do it. Such methods of resisting change have always failed in the past and are foredoomed to failure now.

The real problem that confronts us, and it is a great problem, is how to adjust religion to science, faith to knowledge, ideality to reality, for adjustment in the reverse direction will never happen. Facts cannot be eliminated by ideals, and it is too late in the history of the world to attempt to refute the findings of science by sentimental objections or supposed theological difficulties. If science makes mistakes, science must furnish the cure; it can never be done by church councils, state legislatures, nor even by popular vote.

The only possible remedy for the present deplorable condition is not less, but more and better, science and education; science that recognizes that the search for truth is not the whole of life, that both scientific reality and religious ideality are necessary to normal, happy, useful living. We must keep our feet on the ground of fact and science, but lift our heads into the atmosphere of ideals. "To the solid ground of Nature trusts the mind that builds for aye." Education from the earliest years must teach love rather than hate, human brotherhood rather than war, service rather than selfishness; it must develop good habits of body and mind; it must instill reverence, not only for truth but also for beauty and righteousness."

"Where there is no vision, the people perish." Man cannot live by bread alone; he must have ideals and aspirations, faith and hope and love. In short, he must have a religion. The world never needed a religion of high ideals and aspirations more than it needs it now. But the old religion of literalism and of slavish regard to the authority of church or book, while well suited to some minds, cannot serve the needs of those who have breathed the air of science. Must all such be deprived of the benefits of a religion which they need and be forced into a false position of antagonism to religion as a whole because they cannot accept all the literalism, infantilism, and incidentalism of so-called fundamentalism? The fundamentalists, raher than the scientists, are helping to make this an irreligious age.

Science has destroyed many old traditions but it has not destroyed the foundations of ethics or religion. In some respects it has contributed greatly

- 1. The universality of natural law has not destroyed faith in God, though it has modified many primitive conceptions of deity. This is a universe of ends as well as of means, of teleology as well as of mechanism. Mechanism is universal but so also is finalism. It is incredible that the system and order of nature, the evolution of matter and worlds and life, of man and consciousness and spiritual ideals are all the results of chance. The greatest exponents of evolution, such as Darwin, Huxley, Asa Gray, and Weismann, have maintained that there is evidence of some governance and plan in Nature. This is the fundamental article of all religious faith. If there is no purpose in the universe, or in evolution, or in man, then indeed there is no God and no good. But if there is purpose in nature and in human life, it is only the imperfection of our mental vision that leads us sometimes to cry in despair, "Vanitas vanitatum, all is vanity." No one can furnish scientific proof of the existence or nature of God; but atheism leads to pessimism and despair, while theism leads to faith and hope. "By their fruits ye shall know them."
- 2. Science leaves us faith in the worth and dignity of man. In spite of weakness and imperfection, man is the highest product of a billion years of evolution. We are still children in the morning of time, but we are attaining reason, freedom, spirituality. The ethics of mankind is not the ethics of the jungle or the barnyard. In the new dispensation men will no longer be restrained from evil by fear of hell or hope of heaven, but by their decent instincts and their high ideals. When love of truth, beauty, goodness, of wife, children, humanity, dies in us our doom will be sealed. But it will not die in all men; the long-past course of progressive evolution proves that it will live on, somewhere and somehow.
- 3. Science leaves us hope for the future. Present conditions often seem desperate; pessimists tell us that society is disintegrating, that there will never be a League of Nations, that wars will never cease, that the human race is degenerating, and that our civilization is going the way of ancient Egypt, Assyria, Greece, and Rome. But though nations have risen and fallen, and cultures have waxed and waned, the major movements of human history have been forward. After civilization had once been attained, it never completely disappeared from the earth. The torch of culture was handed on from Egypt to Greece and from Greece to Rome, and from all of these to us. One often hears of lost arts and civilizations of the past, but the best elements of any culture are immortal.

The test of biological variations and mutations is whether they lead to increasing fitness, and the test of all social and moral mutations and revolutions, such as those of to-day, is whether they lead to increasing perfection and progress. The great principle of the survival of the fit has guided evolution from amoeba to man, from tropisms and reflexes to intelligence and consciousness, from solitary individuals to social organizations, from instincts to ethics, and this great principle will not be abrogated to-day or to-morrow. It is the "power, not ourselves, that makes for righteousness." Man can consciously hasten or hinder this process, but he cannot permanently destroy it. He can refuse to take part in it and can choose to be eliminated, but the past course of evolution for millions of years indicates that somewhere and somehow this process will go on.

The evolutionist is an incorrigible optimist; he reviews a billion years of evolution in the past and looks forward to perhaps another billion years of evolution in the future. He knows that evolution has not always been progressive; that there have been many eddies and back currents, and that the main current has sometimes meandered in many directions; and yet he knows that, on the whole, it has moved forward. Through all the ages evolution has been leading toward the wider intellectual horizons, the broader social outlooks, the more invigorating moral atmosphere of the great sea of truth.

What progress in body, mind, and society; what inventions, institutions, even relations with other worlds, the future may hold in store, it hath not entered into the heart of man to conceive. What does it matter if some men refuse to join this great march onward, what does it matter if even our species should become extinct if only it give place to a better species! Our deepest instincts are for growth; the joy of life is progress. Only this would make immortality endurable. Human progress depends upon the increase and diffusion among men of both knowledge and ethics, reality and ideality, science and religion. Now for the first time in the history of life on this planet, a species can consciously and rationally take part in its own evolution. To us the inestimable privilege is given to co-operate in this greatest work of time, to have part in the triumphs of future ages. What other aim is so worthy of high endeavor and great endowment?