

# Max Planck on Religion and Science

Max Karl Ernst Ludwig Planck received the Nobel Prize in Physics in 1918 "in recognition of the services he rendered to the advancement of Physics by his discovery of energy quanta". Planck made many contributions to physics, but is remembered primarily for his role as the originator of quantum theory.



*In the conduct of our own lives the causal principle is of little help; for by the iron law of logical consistency we are excluded from laying the causal foundations of our own future or foreseeing that future as definitely resulting from the present.*

*But mankind has need of fundamental postulates for the conduct of everyday existence, and this need is far more pressing than the hunger for scientific knowledge. A single deed often has far more significance for a human being than all the wisdom of the world put together. And therefore there must be another source of guidance than mere intellectual equipment. The law of causation is the guiding rule of science; but the Categorical Imperative—that is to say, the dictate of duty—is the guiding rule of life. Here intelligence has to give place to character, and scientific knowledge to religious belief. And when I say religious belief here I mean the word in its fundamental sense. And the mention of it brings us to that much discussed question of the relation between science and religion. It is not my place here nor within my competency to deal with that question. Religion belongs to that realm that is inviolable before the law of causation and therefore closed to science. The scientist as such must recognize the value of religion as such, no matter what may be its forms, so long as it does not make the mistake of opposing its own dogmas to the fundamental law upon which scientific research is based, namely, the sequence of cause and effect in all external phenomena. In conjunction with the question of the relations between religion and science, I might also say that those forms of religion which have a nihilist attitude to life are out of harmony with the scientific outlook and contradictory to its principles. All denial of life's value for itself and for its own sake is a denial of the world of human thought, and therefore in the last analysis a denial of the true foundation not only of science but also of religion. I think that most scientists would agree to this, and would raise their hands against religious nihilism as destructive of science itself.*

*There can never be any real opposition between religion and science; for the one is the complement of the other. Every serious and reflective person realizes, I think, that the religious element in his nature must be recognized and cultivated if*

*all the powers of the human soul are to act together in perfect balance and harmony. And indeed it was not by any accident that the greatest thinkers of all ages were also deeply religious souls, even though they made no public show of their religious feeling. It is from the cooperation of the understanding with the will that the finest fruit of philosophy has arisen, namely, the ethical fruit. Science enhances the moral values of life, because it furthers a love of truth and reverence—love of truth displaying itself in the constant endeavor to arrive at a more exact knowledge of the world of mind and matter around us, and reverence, because, every advance in knowledge brings us face to face with the mystery of our own being.*

—from *Where is Science Going?* (London, 1933), pages 167-69.