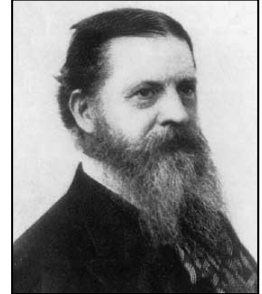




## Charles Sanders Peirce (1839 - 1914)

Charles Sanders Peirce was born September 10, 1839 in Cambridge, Massachusetts (USA) and died April 19, 1914 in Milford, Pennsylvania. He was a logician, philosopher, and scientist.



As the son of Benjamin Charles Sanders Peirce, an eminent scientist and professor of mathematics at Harvard, Charles Sanders Peirce grew up in an intellectually stimulating environment. Under the guidance and education of his father he soon, reportedly at the age of just twelve, became fascinated with logic.

In 1855, Charles Sanders Peirce began his studies at Harvard. There he started a life-long friendship with the philosopher and psychologist William James. During his first year, Charles Sanders Peirce undertook private studies in philosophy, especially focusing on Kant. He graduated in 1859 and then went on to pursue a Masters as well receiving his MA from Harvard in 1862. Four years later, he also obtained a Bachelors of Science, *summa cum laude*, in chemistry.

From 1859 until 1891 Charles Sanders Peirce worked as a scientist for the United States Coast and Geodetic Survey, while privately pursuing his studies in logic. He also worked as an assistant at the astronomical observatory at Harvard, between 1869 and 1872. As a result he published *Photometric Researches* (1878), which turned out to be his only book published during his lifetime.

In 1867, he became a member of The Academy of Arts and Science and ten years later, in 1877, a member of the National Academy of Sciences. He was appointed a lecturer in logic at the Johns Hopkins University in 1879, his only academic position. Based on his lectures Charles Sanders Peirce edited *Studies in Logic* (1883), an essay collection by the scholar and his students.

Throughout his life, Charles Sanders Peirce published a large number of academic articles in renowned journals, such as *Proceedings of the American Academy of Arts and Sciences* and the *American Journal of Mathematics*. Perhaps his best-known works were *How to Make Our Ideas Clear*, where he established his pragmatic philosophy and *The Fixation of Belief*, where he defended the scientific method, which for him was the only way through which progress towards ultimate knowledge can be attained. Both were published in *The Popular Science Monthly* series between 1877 and 1878.

Though his main interest was logic, he is first and foremost recognized as the founder of the school of pragmatism, a name which Charles Sanders Peirce himself changed into “pragmaticism” in 1905. Charles Sanders Peirce’s pragmati(c)ism was based on the idea that every concept must have practical and observable consequences, assuming that the value of a concept depends on its outcome. Consequently, one of his main interests was to demonstrate how philosophy could be practically applied to human problems. This he tried by



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applying scientific principles. For Charles Sanders Peirce, philosophy was to be based on mathematical principles.

In *How to Make Our Ideas Clear*, Charles Sanders Peirce had argued in favour of a “pragmatic” notion of clear concepts, distinguishing between three levels of conception. Whereas the first related to familiarity and self-evidence, the second considers the relation between reality and fiction, i.e. it relates to an *interpretant*. The third level relates to our conception of effects, which causes our conception of an *object*.

Charles Sanders Peirce is known for his frequent use of the number three. Apart from the sciences (divided into sciences of discovery, review, and the practical sciences), he differentiates between three forms of philosophy. In this hierarchical order are phenomenology, normative science, and metaphysics. For Charles Sanders Peirce, phenomenology is the most abstract branch, whereas the other two provide a more concrete applicability. Further, he distinguishes between three elements of phenomenology: firstness (unmediated qualities), secondness (existence), and thirdness (understanding). He then divides normative science into aesthetics, ethics, and logic, and metaphysics into general metaphysics (ontology), religious metaphysics, and physical metaphysics.

Charles Sanders Peirce made several important discoveries in mathematics, for example in the “*Logic of Relatives*” (1870), he extended the theory of relations. “*On the Algebra of Logic: A Contribution to the Philosophy of Notation*” (1885) was cited by Ernst Schröder (with whom Charles Sanders Peirce had an intensive correspondence). Peirce is also considered to be one of the founders of statistics.

Additionally, as is well known, Charles Sanders Peirce developed a theory of signs at almost the same time as Saussure. He called his theory, *semeiotics*. For Charles Sanders Peirce, the sign is a representative relation, i.e., the sign mediates the relation between objects and interpretants. Once more, he offers a triad and distinguishes between them: the *Representamen*, the sign; the *Interpretant*, the sense or meaning made by the sign, either immediate (the meaning *is* the sign), dynamic (the meaning is an effect), or final (normative/ideal meaning); and *The Object*, represented by the sign, either *immediate* (the object is represented in the sign) or *dynamic* (the real object).

Being an innovative and creative scholar, Charles Sanders Peirce had an enormous and widespread influence on other thinkers such as Alfred North Whitehead, Karl Raimund Popper, Bertrand Russell and his student John Dewey.

Charles Sanders Peirce died of cancer on April 20, 1914. He left a vast amount of works on a very wide range of topics.

Source: adapted from <http://plato.stanford.edu/entries/peirce/>



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