

'Science' (pub. 07.03.13-20:12). Quote in M. Bergman & S. Paavola (Eds.), *The Commens Dictionary: Peirce's Terms in His Own Words. New Edition*. Retrieved from <http://www.commens.org/dictionary/entry/quote-minute-logic-chapter-ii-prelogical-notions-section-i-classification-science-3>.

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**Term:** Science

**Quote:** Now if we are to classify the sciences, it is highly desirable that we should begin with a definite notion of what we mean by a science; and in view of what has been said of natural classification, it is plainly important that our notion of science should be a notion of science as it lives and not a mere abstract definition. Let us remember that science is a pursuit of living men, and that its most marked characteristic is that when it is genuine, it is in an incessant state of metabolism and growth. If we resort to a dictionary, we shall be told that it is systematized knowledge. Most of the classifications of the sciences have been classifications of systematized and established knowledge, – which is nothing but the exudation of living science; – as if plants were to be classified according to the characters of their gums. Some of the classifications do even worse than that, by taking science in the sense attached by the ancient Greeks, especially Aristotle, to the word *ἐπιστήμη*. A person can take no right view of the relation of ancient to modern science unless he clearly apprehends the difference between what the Greeks meant by *ἐπιστήμη* and what we mean by knowledge. The best translation of *ἐπιστήμη* is “comprehension.” It is the ability to define a thing in such a manner that all its properties shall be corollaries from its definition. Now it may be that we shall ultimately be able to do that, say for light or electricity. On the other hand, it may equally turn out that it forever remains as impossible as it certainly is to define number in such a way that Fermat’s and Wilson’s theorems should be simple corollaries from the definition. I do not mean to deny that those theorems are deducible from the definition. All that is here being urged turns on the falsity of the old notion that all deduction is corollarial deduction. But, at any rate, the Greek conception of knowledge was all wrong in that they thought that one must advance in direct attack upon this *ἐπιστήμη*; and attached little value to any knowledge that did not manifestly tend to that. To look upon science in that point of view in one’s classification is to throw modern science into confusion.

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Let us look upon science – the science of today – as a living thing. What characterizes it generally, from this point of view, is that the thoroughly established truths are labelled and put upon the shelves of each scientist’s mind, where they can be at hand when there is occasion to use things – arranged, therefore, to suit his special convenience – while science itself, the

living process, is busied mainly with conjectures, which are either getting framed or getting tested. When that systematized knowledge on the shelves is used, it is used almost exactly as a manufacturer or practising physician might use it; that is to say, it is merely applied. If it ever becomes the object of science, it is because in the advance of science, the moment has come when it must undergo a process of purification or of transformation.

**Source:** Peirce, C. S. (1902). *Minute Logic: Chapter II. Prelogical Notions. Section I. Classification of the Sciences (Logic II)*. MS [R] 427.

**References:** CP 1.232; EP 2:129

**Date of** 1902

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