

**ZMATH 2011d.00457**

**Bunge, Mario**

**Knowledge: genuine and bogus.**

Sci. Educ. (Dordrecht) 20, No. 5-6, 411-438 (2011).

Summary: Pseudoscience is error, substantive or methodological, parading as science. Obvious examples are parapsychology, “intelligent design,” and homeopathy. Psychoanalysis and pop evolutionary psychology are less obvious, yet no less flawed in both method and doctrine. The fact that science can be faked to the point of deceiving science lovers suggests the need for a rigorous sifting device, one capable of revealing out the worm in the apple. This device is needed to evaluate research proposal as well as new fashions. Such a device can be designed only with the help of a correct definition of science, one attending not only to methodological aspects, such as testability and predictive power, but also to other features of scientific knowledge, such as intelligibility, corrigibility, and compatibility with the bulk of antecedent knowledge. The aim of this paper is to suggest such a criterion, to illustrate it with a handful of topical examples, and to emphasize the role of philosophy in either promoting or blocking scientific progress. This article is a revised version of a chapter in the author’s forthcoming book *Matter and Mind* (Springer). [The Appendix on inductive logic was written at the request of the editors in order to elaborate claims made in #10 (4).]

*Classification:* E20 E30 K50

*Keywords:* philosophy of science; science and pseudoscience; scientific progress; immaterialism in the study of matter; unconsciousness; speculative evolutionary psychology; mercenary science; inductive logic; conditional probability

doi:10.1007/s11191-009-9225-3