How Science is applied in Technology: Explaining Basic Sciences in the Engineering Sciences

Boon, Mieke (2004) How Science is applied in Technology: Explaining Basic Sciences in the Engineering Sciences. In *Proceedings Philosophy of Science Assoc. 19th Biennial Meeting - PSA2004: PSA 2004 Workshops*, Austin Texas.

Abstract

The issue of this oral presentation is " How Science is applied in Technology " ; more specifically, how science is used in developing knowledge of phenomena and processes that occur in technological devices. Firstly, a traditional picture of applying science in technology is sketched. This picture is inappropriate for understanding how science is used in the engineering science. Next, and alternative picture is proposed. In this alternative view, engineering sciences aim at models of physical phenomena in technological artifacts. A distinction is made between three types of models: diagrammatic models, nomo-mathematical models and experimental models. These models are mutually related,involve different types of already existing scientific knowledge, and involve distinct epistemological claims.

Keywords:	models, engineering sciences, technical sciences, applying science,
Subjects:	General Issues: Models and Idealization
Conferences and Volumes:	Philosophy of Science Assoc. 19th Biennial Meeting - PSA2004: PSA 2004 Workshops
ID Code:	2189
Deposited By:	Boon, Mieke
Deposited On:	08 Febuary 2005