
Open the doors: integrating epistemology into the lab

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Abstract

Is epistemology useful? This question can be asked in many different ways. Here, we propose an original experiment in which we verify, into existing research projects conducted in research laboratories, what scientific research(ers) can gain from epistemological approaches. Traditionally, epistemologists treat the philosophical questions raised by science outside research laboratories. This approach emphasizes the historical analysis of scientific concepts and theories, describe the functioning of science, its relation to epistemic values, or the succession of epistemological traditions. However, studies investigating the relevance of integrating epistemological approaches *within* laboratories are missing. In this talk, we show with concrete examples how a more "integrated epistemology", can be useful either for natural sciences or humanities. In this respect, two examples will be discussed, respectively in cognitive psychology and scientific ecology. The first project was conducted in a laboratory of psychology, the other in a laboratory of natural science and ecology. In each case, specific scientific questions have been addressed. The research project in psychology was to shed new lights on the relation between perceptions, memory and actions. We show that reframing this problem using philosophical tools such as Dewey's naturalistic metaphysic redefine the way we understand our interactions with the world around us. The second scientific project was to test the generality of the relationship between different variables of considerable importance in ecological science, namely the relationship between species diversity and functional diversity in natural communities. In each case, we discuss further possible applications and limits of this integrated epistemology.

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