Cognitive neuroscience as a research tradition and a social practice: the case of episodic memory
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Because of the central role of the notion of mechanism (Craver, 2007, Bechtel, 2007), philosophy of neuroscience has recently been directed mainly towards an analysis of neuroscientific explanations - an analysis of their style, purpose and requirements. But how should we conceive the theoretical landscape shaped in such a field by recurring issues, conflicting results, different experimental techniques, and diverging theories? Two key concepts could be useful here. One is the concept of research tradition suggested by Laudan (Laudan, 1977): it would be legitimate to think cognitive neuroscience as a research tradition, because in such a field, we can identify general assumptions about what the entities and processes are, about the appropriate methods of investigation, and which requirements theories must meet. The alternative concept is the concept of social practice as presented by MacIntyre (MacIntyre, 1981). A practice is a socially established cooperative human activity where standards of excellence play a key role and where individuals have to develop specific qualities (or virtues) to reach the goals prescribed by such a practice. If the model of research traditions is useful to make sense of historical continuity, taking the social practice model seriously obliges us, in particular, to make explicit the kind of epistemic virtues that have to be developed to make valuable contributions to cognitive neuroscience. Taking as an example recent, groundbreaking work on neural mechanisms related to episodic memory and its relation to the simulation of one’s future (Szpunar and al., 2007; Schacter and Addis, 2007), we would like to emphasize the role of ingenuity, receptivity and inventiveness as key virtues in neurocognitive research understood as a social practice.

Cognitive Neuroscience and the Mechanist Thesis
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Cognitive neuroscience is an interdisciplinary enterprise aimed at explaining cognition and cognitive behavior. It appears to be succeeding. What accounts for its apparent explanatory success? One prominent philosophical thesis is that cognitive neuroscience explains by discovering and describing mechanisms. In this essay, I identify and critically assess the theoretical commitments of one important interpretation of this thesis. According to this interpretation, the mechanist thesis is defensible on both descriptive and normative grounds: cognitive neuroscience is in the business of describing mechanisms; and mechanistic descriptions, insofar as they describe the network of causal dependencies that produce a cognitive phenomenon, are paradigm examples of good explanations. Indeed, on one
particularly strong version of this view, mechanistic descriptions are necessary for explaining cognitive phenomena. However, I argue that arguments in defense of these commitments fall short of their descriptive and normative aims. In particular, the explanatory variety that is characteristic of the discipline poses a significant challenge to this interpretation of the mechanist thesis. Furthermore, an objection to the necessity of mechanistic descriptions for explaining cognitive phenomena suggests an alternative role for the discovery of mechanisms, namely, as a means of marshaling evidence for a variety of explanatory models.