

ABSTRACT

Embodied Rationality

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In the last decade, many cognitive and social psychology researchers have adopted the idea of “embodied cognition” – that cognition is grounded in the brain’s modality-specific processing and in actual bodily states. Two examples: (1) when people are asked to describe an animated cartoon, they are impaired in describing spatial elements of the action when they are prevented from gesturing (relative to people who are not prevented from gesturing); (2) when responding to words on screen, people are faster to indicate that the word is positive by pulling a lever toward them and negative by pushing a lever away from them than when they use the opposite response pattern.

Findings from these domains suggest that the study of higher order cognition (like reasoning, judgment, and decision-making, the things we think of as the basis of “rationality”) could benefit by reconsidering some of the findings of “irrationality” with recourse to the embodiment of cognition. For example, the concept of a “just noticeable difference” – that the physiological ability to detect a difference changes with the magnitude of the stimulus (e.g., you can tell the difference between a 1-ounce and 2-ounce weight but not between a 10-pound and 10-pound--ounce weight) is analogous to the idea of decreasing marginal utility in judgments. Similarly, visual illusions are often created by the effects of context, and context forms the basis for many “irrational” judgment phenomena like preference reversal.

Thus, this paper is going to mine recent research and theory on embodied cognition to find lessons for theories of rationality.

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