

Extraordinary Cognitive Science in an Era of Novel Tool Development and Big Data

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Methodological pluralism, the use of multiple different methods to investigate phenomena of interest, is the norm in the sciences of the mind and brain. Perspectival pluralism, the appeal to different conceptual-theoretical frameworks to design, implement and critically evaluate experiments used to investigate those phenomena is less common. This difference makes sense; while the development of novel experimental tools has made it easier to combine methods, it is far more challenging to coordinate different conceptual-theoretical perspectives on the complex systems scientists desire to understand and control. In this talk, I argue by way of a critical analysis of several recent case studies that when scientists successfully coordinate different conceptual-theoretical perspectives in designing, implementing and refining experiments, they are engaging in a kind of “extraordinary research” (Kuhn 1970) that is essential for progress in the sciences of the mind and brain.