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Editorial

The Mind and the Brain: A Multiscale Interpretation of Cognitive Brain Functionality

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Welcome to a special issue of Journal of Multiscale Neuroscience focused on The Mind and The Brain: A Multiscale Interpretation of Cognitive Brain Functionality. This special issue contains six articles that come from different disciplinary perspectives and methods that themselves span a range of spatiotemporal scales for analyzing cognition and behavior. At a time when the field of cognitive science is transitioning away from the computer metaphor of the mind and toward complex interactive frameworks (Spivey, 2023), these articles serve as waypoints for how to go about building those new theories. The articles include philosophical reviews of the processes that allow for self-organization to emerge in a multiscale cognitive system (Silberstein, 2023) and how best to model such multiscale processes (Favela, 2023). They include dense-sampling measures of postural movements (Corbin et al., 2023), time series analyses of music perception (Waddington & Balasubramaniam, 2023), and recurrence quantification analysis of spoken sentence comprehension (Nguyen & Spivey, 2023). And it all culminates in a big-picture perspective on how mental activity across any and all life forms may be best understood as emerging from collective action among sub-elements interacting to form self-organized metastable cognitive structures (Falandays et al., 2023).

Lead Editor:

Prof Michael J Spivey, Author of "The Continuity of Mind".
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