

# Over - Interpreting Functional Neuroimages

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## Abstract

Cognitive neuroscientists use functional magnetic resonance imaging (fMRI) to measure properties of a participant's brain during a cognitive task. These imaging results are transformed into compelling pictures of brain activity using statistical models. I will argue that, for a broad class of experiments, neuroimaging experts have a tendency to over - interpret the functional significance of their data. This over - interpretation appears to follow from contentious theoretical assumptions about the mind - brain connection, and from a propensity to conflate the anatomical location of a statistically - significant correlation with knowledge of the mechanistic functioning at that location.

**Keywords:** Cognitive Neuroscience; fMRI; Neuroimaging; Mental Mechanisms

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