

Knowing Right from Wrong: Metacognitive Drivers of Belief Change

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Metacognition refers to the ability to reflect on and evaluate other cognitive processes, such as learning, memory and decision-making. It is increasingly appreciated that the capacity for metacognitive reflection (monitoring) is grounded in the function of higher-order prefrontal and parietal networks in the human brain. However, less attention has been paid to how metacognition is used in the guidance of future behaviour (control). In my talk I will present data from experiments that seek to understand the role of metacognition in how we process new information. By using psychophysical tricks to decouple confidence and performance, we show that confidence in an initial decision acts to shape neural metrics of post-decisional processing obtained from MEG recordings. In turn, individual differences in metacognitive sensitivity predict the extent to which people are able to benefit from new information to update their beliefs. I will also explore how these processes account for variance in real-world attitudes, and how metacognitive training may provide a route towards reducing the prevalence of extreme and polarised beliefs.