

THE HISTORY AND PHILOSOPHY OF SCIENCE DEPARTMENT

Announces

THE ANNUAL HPS ALUMNI LECTURE

“Translational Cognitive Neuroscience: How Can We Learn from Animals?”

given by Alumnus

Jackie Sullivan, Class of 2007

University of Western Ontario

Thursday, March 15, 2018

5:00 pm

University Club – Ballroom A

ABSTRACT: Mental illness is widely understood to involve impairments in cognition. During the past two decades, neuroscientists have sought to characterize these impairments and identify the neural mechanisms that give rise to them. A common approach is to investigate the neural mechanisms of cognitive functions in non-human animals and use the findings to ground inferences about the neural mechanisms of cognitive functions in humans. One obstacle to progress in this research area, however, has been the lack of analogous experimental tools to assess cognitive functions in experimental animals and humans. Specifically, it is unclear whether experimental tools used in human and non-human animal studies probe the same cognitive functions. In this talk, I describe a collaborative research initiative directed at developing a set of experimental tools to assess cognition in experimental animals that are designed to produce data sufficient to warrant mechanistic inferences from non-human animal to human studies. I argue that the success of these tools for producing such data is contingent on them meeting a number of epistemic requirements (e.g., face validity, replicability, construct validity). Moreover, ensuring that these requirements are met involves an unprecedented amount of coordination both within individual laboratories and across research groups. I examine the nature of this coordination and address the question of whether it provides any insights with respect to the correct recipe for cumulative science more generally.

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