

Decision Processes Colloquia

Monday, April 2, 2012

Where: JMHH 245

When: 12:00 noon to 1:20 PM

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Harry Potter and the Sorcerer's Scope: Latent Scope Bias in Reasoning

What makes a good explanation? Theorists since William of Ockham have argued that theories that explain more observed phenomena (i.e. have broader explanatory scope) are stronger explanations than alternative accounts. Both scientists and laypeople seem to use this principle when seeking explanations. However, this notion of explanatory scope assumes that individuals are certain about the data under investigation. Yet reasoners are often forced to evaluate explanations about uncertain, unobserved phenomena. This suggests an important psychological construct that has not yet been studied: latent scope. Latent scope can be thought of as the number of distinct effects for which an explanation could account, but which have not yet been observed. In contrast to people's tendency to prefer broader explanatory scope, we find robust evidence that people prefer narrower latent scope. This talk will explore latent scope biases, demonstrating its ubiquity across cognitive domains, and examining several possible underlying mechanisms.