Decision Processes Colloquia

Monday, March 17, 2014

Where: JMHH 265

When: 12:00 – 1:20 pm

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Causal Models and Intervention in Counterfactual Reasoning, Decision Making, and Judgment

ABSTRACT: For A promising normative framework for causal reasoning has become popular in the form of Causal Bayesian Networks. The framework predicts that people will distinguish intervention from observation. For instance, when interpreting conditional statements, they will not treat a counterfactual effect as evidence for its causes, only for its effects. I show that this is generally correct but violations occur in order to preserve the truth of the statement. In the domain of decision making, people will sometimes treat choice as an intervention, providing support for causal over evidential expected value theories. Evidence for the hierarchical structure of causal knowledge is that people typically know less about causal systems than they think they do (the illusion of explanatory depth). I report studies showing this is true in politics as well and that shattering the illusion leads to more moderate attitudes and can reduce donations to relevant political advocacy groups but this occurs only for consequentialist issues, not those governed by sacred values. The illusion is not present in those who score well on the Cognitive Reflection Test. Those who score well have a different attitude toward causal explanation. They prefer more detail and are more sensitive to what they don't know.

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