

## **Seminar 4: Judgement Under Risk and Uncertainty**

This seminar will focus on judgement under uncertainty—how people form and change their beliefs. I will begin by outlining the normative theory of probabilistic judgement that underpins the standard economic model. This is assumed to be the normatively correct theory of probability judgement—it correctly describes how people should make probabilistic judgements. It is also considered to be a descriptive theory that explains how people actually do make judgements and decisions. After introducing the theory of probability, our four speakers will report a number of phenomena of human judgement—viz. gambler's, conjunction, and disjunction fallacies, base-rate bias, confirmation bias, availability heuristic—that are at variance with this theory. These discrepancies suggest that a descriptively adequate theory of judgement must differ from the rational theory of probability judgement embedded in the standard model.

### ***Speaker 1: Gambler's, conjunction, & disjunction fallacies***

Tversky, A., & Kahneman, D. (1971). Belief in the law of small numbers. *Psychological Bulletin*, 76, 105-110.

Tversky, A., & Kahneman, D. (1983). Extensional versus intuitive reasoning: The conjunction fallacy in probability judgement. *Psychological Review*, 90, 293-315.

### ***Bonus paper on disjunction fallacy (optional):***

Tversky, A., & Shafir, E. (1992). The disjunction effect in choice under uncertainty. *Psychological Science*, 3, 305-309.

### ***Speaker 2: Base rate neglect & planning fallacy***

Bar-Hillel, M. (1980). The base-rate fallacy in probability judgement. *Acta Psychologica*, 44, 211-233.

Buehler, R., Griffin, D., & Ross, M. (1994). Exploring the planning fallacy: Why people underestimate their task completion times. *Journal of Personality and Social Psychology*, 67, 366-381.

### ***Speaker 3: Confirmation bias***

Nickerson, R. S. (1998). Confirmation bias: A ubiquitous phenomenon in many guises. *Review of General Psychology*, 2, 175-220.

Lord, C. G., Ross, L., & Lepper, M. R. (1979). Biased assimilation and attitude polarization: The effects of prior theories on subsequently considered evidence. *Journal of Personality and Social Psychology*, 37, 2098-2109.

### ***Speaker 4: Availability heuristic & hindsight bias***

Fischhoff, B., & Beyth, R. (1975). "I knew it would happen": Remembered probabilities of once future things. *Organizational Behavior and Human Performance*, 13, 1-16.

Tversky, A., & Kahneman, D. (1973). Availability: A heuristic for judging frequency and probability. *Cognitive Psychology*, 5, 207-232.