

Truth, Probability, and Evidence in Judicial Reasoning: The Case of the Conjunction Fallacy



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Abstract In recent decades, empirical investigation has increasingly illuminated how experts in the legal domain, including judges, evaluate evidence and hypotheses, reason and decide about them. Research has highlighted both the cognitive strategies employed in legal reasoning, and the cognitive pitfalls judges and other experts tend to fall prey to. In this paper, we focus on the “conjunction fallacy”, a widespread phenomenon showing that human reasoners systematically violate the rules of probability calculus. After presenting the fallacy as documented in judicial reasoning, we present two formal accounts of the phenomenon, respectively based on the notions of confirmation (evidential support) and truthlikeness (closeness to the truth) as studied in the philosophy of science. With reference to the “story-model” of legal decision-making, we clarify the role that “cognitive utilities” like truth, probability, and information play in legal reasoning, and how it can account for the documented fallacies. We conclude by suggesting some directions for further investigation.

Keywords Legal and judicial reasoning · Confirmation · Evidence · Probability · Information · Truth(likeness) · Cognitive utility · Story-model

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