Can priming intuitions about the logic of sets promote logical evaluations of conjunctive probability judgments?

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Abstract: Building upon the finding that people can assess the logicality of conjunctive probability statements intuitively (Vallee-Tourangeau & Faure-Bloom, 2015), we examine whether increasing the salience of people's implicit knowledge about the logic of sets can impact the influence of logical considerations on probability judgments. We compared the rate of heuristic responding in a control group with that observed in two experimental groups where participants were either explicitly or implicitly primed to reflect on the logic of sets inclusions prior to completing a conjunction probability task. Explicit priming involved asking them to rate a series of statements such as 'I am more likely to meet a bank teller than a bank teller who is also a feminist.' Implicit priming involved experiencing a series of events with the co-occurring presence and absence of a target characteristic (e.g., Feminist) and an alternative characteristic (e.g., Bank Teller) using a computer-based dynamic learning task.