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Decision-Making Under Uncertain Circumstances in Borderline Personality Disorder (BPD) Patients

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Abstract

Existing research has developed a working understanding of borderline personality disorder (BPD) patient traits and behavior in everyday life, but the subtleties of their cognitive processes during decision-making remains unclear. To understand how reliance on previous experiences (priors) versus current sensory information (likelihoods) in the decision-making process may differ for those with BPD in comparison to those within neuro-typical population, we implemented a coin-catching behavioral task with varying levels of prior and likelihood uncertainty. We hypothesized that, in accordance to typical BPD characteristics, BPD patients will rely significantly more on likelihood information even when likelihood information is more unreliable than prior information. Analyzing the results using Bayesian statistics, we found evidence suggesting that both the BPD patient group and the neuro-typical control group utilized prior and likelihood information similarly in decision-making. We theorize that BPD characteristics that are prominent in social interactions may not exactly replicate in non-social settings.

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