An Ecological Momentary Assessment test of the bipolar continuum hypothesis for Self-Compassion

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Abstract

**Objective:** This study compared individuals with Restrictive Anorexia Nervosa (R-AN; n = 40) to Healthy Controls (HCs; n = 45) and healthy controls at RIsk of eating disorders (RI; n = 36) in a Probabilistic Reversal Learning (PRL) task. The aim was to investigate whether R-AN individuals perform similarly to HCs and RIs in neutral contexts but show significant impairments in food-related contexts. **Method:** Participants completed a PRL task, making choices related to their disorder or unrelated to it. **Results:** R-AN individuals showed lower learning rates for disorder-related decisions, but their performance on neutral decisions was similar to the HC and RI groups. Additionally, only the R-AN patients exhibited reduced learning rates for food-related decisions compared to food-unrelated decisions. **Discussion:** These findings suggest that contextual cues, like food images, negatively impact Reinforcement Learning (RL) processes in individuals with R-AN. This raises questions about whether the impaired RL performance should be solely attributed to compromised learning mechanisms, especially when RL abilities appear intact in neutral contexts. The study’s insights may have implications for developing interventions that target decision-making processes in individuals with R-AN.

*Keywords:* anorexia nervosa, reinforcement learning, contextual learning, probabilistic reversal learning

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# References