Validating an experimental paradigm for inducing and measuring habits

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Abstract

Habits are difficult to induce and measure in human laboratory tasks, and putative behavioral indices of habits often fail to correlate with self-reported habitual tendencies. We recently developed a behavioral paradigm that reliably reveals overtraining-induced inflexibility within a single ∼1-hour session, using a Habit Index (HI) that contrasts slips of action between extensively and minimally practiced contexts (Oh & Collins, 2025). Here, we test whether individual differences in HI reflect the same habitization process underlying real-life habits, by examining correlations between HI and self-report measures: the COHS Automaticity subscale, the Habitual Tendencies Questionnaire, and the Self-Report Behavioural Automaticity Index administered with respect to task behavior. Pilot data (N=106) showed positive associations between overall HI and these measures ($\rho \approx .25$–$.35$). We preregistered this correlational study (target N=200) and will present confirmatory results.

Keywords: habits; human behavior; individual differences; construct validation

In G. Boleda, I. Dautriche, M. Maldonado, C. Saldana and T. Torrent (Eds.), *Proceedings of the 48th Annual Conference of the Cognitive Science Society*