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Behavioral Timing Theory Applied to a DRL-Limited Hold Procedure

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Poster Presentation P29

BEHAVIORAL TIMING THEORY APPLIED TO A DRL-LIMITED HOLD PROCEDURE

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The Behavioral Theory of Timing (BeT, Killeen and Fetterman, 1988) argues that the timing of short intervals is mediated by collateral/adjunctive behavior. Numerous studies have supported the predictions of BeT. For example, the accuracy of timing behavior is positively correlated with rates of collateral behavior, and timing is more accurate when an explicit collateral behavior is made available or required. The present experiment sought to examine BeT under a DRL limited-hold procedure. In a DRL limited-hold procedure, subjects must wait a certain time interval before responding - early responses are not reinforced and reset the clock. However, the response must be made before expiration of a second time period. Six rats were exposed a step-down procedure in which they were required to stay on a platform for t seconds. The clock reset if the animal responded early, and reinforcers were not delivered. After t seconds elapsed, responses were reinforced only if they occurred before an additional h seconds (the hold period) had elapsed. Rats were tested in both the presence and absence of a stimulus for collateral behavior (a chew block). The results have implications for behavioral timing theories, as well as for schedule behavior in general.