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# The role of temporal predictability in contingency learning

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## Abstract

Whether timing affects contingency learning is currently poorly understood. Specifically, does temporal predictability aid the acquisition of contingencies? We asked participants in a music contingency learning task to respond to the target (the name of a note) while ignoring tones. To assess whether temporal predictability influences the acquisition of these contingencies, we manipulated the temporal context of tone presentation in two experiments. In Experiment 1, one group of participants listened to tones presented with a regular temporal interval (1000 ms between each trial), while the other group listened to tones presented in a random manner (random intervals selected between 600 and 1400 ms). In Experiment 2 we manipulated the temporal presentation of the tones within trials: one group listened to tones with a 300 ms fixed interval between the cue and the target, and the other group with an interval randomly selected between 0 and 600 ms. Although participants learned to associate pitch labels in both experiments this occurred independently of the timing manipulations. These results confirm prior evidence on contingency learning but do not show the effects of temporal predictability in this learning context.