## Who is Moving When Movement is Unseen? The Nature of Temporal Projections of Movement Dynamics during Action Inference

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Previous research has proposed that the observation of action involves the internal simulation of the



same action in the observer as long as the specific action is within the observer's repertoire. This suggests that some aspects of this internal simulation may incorporate projected elements of the observer's own movement dynamics rather than solely relying on the dynamics of the action being observed in others. This research aims to examine if the temporal aspects of motion prediction of others is more aligned with the timing of the action that would be produced by the observer. Participants will view an actor walk a short distance before moving behind an occlusion. They will then estimate when the actor should arrive one of several locations. These estimations will then be compared to determine if they correlate more closely

with their own travel time or with the inferred travel time of the actor.