

Context-dependency in marmoset gaze-following

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Abstract

Gaze-following, the ability to direct one's attention to the target of another individual's gaze, plays a key role in social interactions. Gaze-following has been considered reflexive, implying it might operate invariant to context. We tracked the eye position of head-fixed marmosets as they viewed naturalistic video stimuli featuring a marmoset gazing toward (i.e., cueing) one of two transparent boxes. Three trial types were presented interleaved: in the first, a second marmoset entered the cued box; in the second, no marmoset entered either box; and in the third, both boxes were occluded, creating a non-informative context. In all three conditions, a significantly larger number of initial saccades landed in the cued region than in the un-cued region ($p < 0.001$) confirming gaze-following effects. However, preliminary analysis of other eye movements revealed different gazing patterns across conditions, indicating the potential context-dependent nature of gaze-following influenced by the availability of relevant information.