Causal perception in Guinea Baboons (Papio papio)

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Abstract

In humans, simple 2D visual displays of launching events ("Michottean launches") can evoke the impression of causality. Direct launching events are regarded as causal, but similar events where a spatial and/or temporal gap is added between the movements of the two objects, as non-causal. In the present study, we investigated the evolutionary origins of this phenomenon and tested whether Guinea baboons (Papio papio) perceive causality in launching events. We used a discrimination and categorisation task of Michottean launches. Our results indicate that Guinea baboons discriminate between different events, but we did not find a learning advantage for a categorisation based on causality. This implies that they focused on the spatial and temporal gap to achieve accurate categorisation, but not on causality per se. Currently we cannot rule out that Guinea baboons have causal representations of Michottean events, but our findings point to a feature-based discrimination strategy in a sorting task.

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