

WEIGHT MATTERS – CAUSAL INFERENCE IN CHIMPANZEES

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Causal reasoning allows individuals to predict and control events in the world that would otherwise be impossible to track. Under natural conditions, situations with an inherent causal structure are usually very complex and it is hard to identify the key features that influence animals' decisions. It is therefore important to isolate crucial factors that might differentiate between events that follow a purely spatial and temporal contingency and those that hold a "true" causal relationship. The two studies presented here are explicitly designed to differentiate between situations that hold either a causal or an arbitrary (but 100 % reliable) relationship. If chimpanzees are capable of causally based inferences, they should appreciate a problem-solving context with an inherent causal logic. If, on the other hand, the predominant cognitive process is associative learning or trial-and-error strategies rather than causal reasoning, subjects' behavior should only be affected by the observed statistical regularity of the given cue-outcome relation, not by the causal nature of the cues. Our data suggest that chimpanzees are sensitive to the logico-causal relations between external objects and they are capable of using this knowledge to solve novel problems. This supports the view that, similarly to humans, chimpanzees' causal cognition does not rely on mere perceptual information but also on structural abstraction about their physical environment.

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