

Eat now or use tool? Profitable decision-making in Goffin cockatoos (*Cacatua goffiniana*) and orangutans (*Pongo abelii*)

Abstract

We investigated Goffin cockatoos and orangutans' ability to make flexible and profitable decisions within five different setups, by using a new experimental approach featuring two different types of tools, their respective apparatuses and two different reward qualities. Both species not only flexibly maximized their profit by simultaneously considering the presence of a tool as well as the difference in food quality between an immediate food reward and a food reward located inside of the apparatus, but at the same time some Goffins and an orangutan also attended to the functionality of the available tool. Furthermore most apes and birds did overcome immediate drives in favor of future gains even if this implied tool use as a work effort. In contrast to the orangutans, the Goffins' ability to focus on relevant information was constrained, when all task components (both food qualities, both apparatuses, both tools) were presented at the same time.