

**THIRD PARTY PUNISHMENT IN CHIMPANZEES (PAN TROGLODYTES) AND HUMAN CHILDREN**

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An essential feature for the maintenance of cooperation is punishment. A particularly important form is that which does not directly benefit the punisher, yet helps others by changing the behaviour of free-riders. Third party punishment is important because it is based on norms of cooperation, and it may be essential to uniquely human cooperation. Apart from a few reports on "policing" in nonhuman primates, there have been no tests to determine whether animals other than humans will punish violations of cooperative norms. Furthermore, third-party punishment has not been tested on human children. To determine when third party punishment emerges phylogenetically and ontogenetically, we conducted a series of studies on chimpanzees and 3-year-old children. In the chimpanzee version of the third-party punishment game, subjects could punish food theft committed by a conspecific directed toward another group member, as compared to personal theft. We replicated an earlier finding that chimpanzees would retaliate against theft that affected themselves, but we found no evidence for third party punishment, even when the victim was related to the punisher, and the punisher outranked the thief. Unlike chimpanzees, 3-year-old children responded strongly to third party theft, returning the stolen toy or food to a bereft puppet. These results suggest that fairly early in ontogeny, humans develop a sensitivity to outcomes that affect others, whereas chimpanzees do not. Third party punishment may indeed be uniquely human and essential to the maintenance of cooperation in large groups.

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