



Tracing cooperation across ape societies

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More than any other species, humans cooperate in remarkable ways. From dyads to large groups, our capacity to form connections has provided profound evolutionary advantages. Yet this very capacity is theorized to have co-evolved with pronounced in-group favoritism and out-group biases, linking the evolution of group-level cooperation to the potential for warfare and violence. My work investigates these dynamics by examining how evolutionary histories of violence versus tolerance shape the forms and expressions of cooperation. I study these processes through the lens of our closest living relatives, chimpanzees (*Pan troglodytes*) and bonobos (*Pan paniscus*), two closely related species who similar life histories, social environments, and cognitive capacities, but have also diverged in distinct ways. Chimpanzees live in a male-dominated society characterized by hostility towards out-groups, whereas bonobos are known for their high female-status society and relatively tolerant intergroup interactions. Drawing on longitudinal datasets from multiple wild populations, I examine how in-group/out-group identities and the scale of cooperation (pairwise versus collective) are expressed in these species. I compare sex- and species-level variation in cooperative tendencies, partner preferences, and social selectivity, to investigate how these social dynamics are shaped by different power structures (male versus female dominated) and contrasting orientations toward out-groups (violent versus tolerant). This comparative approach helps identify the socio-ecological conditions and psychological mechanisms that both enable extensive cooperation and constrain it within group boundaries.