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“Simple heuristics for coalition formation in Barbary macaque males”

There is growing evidence that human and nonhuman animals use simple rules to make complex decisions when faced with constraints in time, energy and computational capacity.

To date, our understanding of decision-making in coalitions among non-human primates is limited. I intended to gain a better appreciation of the cognitive complexity associated with coalitionary behavior, by studying the dynamics of male-male coalitions in one group of Barbary macaques during the mating season. Barbary macaques often form leveling coalitions in which two lower-ranking males target a higher-ranking, prime male (“all-up” configuration). Coalitions are not always successful, and I found that the relative strength between the target and the coalition partners is a good predictor of coalition success. How do males know to pick winning partners and decide whether to counter-attack or not after being the target of a coalitionary attack? Evidence suggest that coalition partners and targets alike may rely on simple rules of thumb based on their knowledge of dyadic and third-party relationships, rather than estimates of asymmetry in strength per se. Additional factors that still need to be investigated empirically, such as motivation, coordination and tolerance, may also play a role in coalition building decisions.

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