

Dr Orlaith Fraser

University of Vienna, Austria

“Coalition Formation in Ravens”

Orlaith N. Fraser¹ & Thomas Bugnyar^{1,2}

The corvid family have recently received considerable attention for their primate-like cognitive skills, leading to the suggestion of a convergent cognitive evolution. Little is yet known, however, about the extent to which patterns of social interactions in corvids, such as coalition formation (i.e., when one individual intervenes in an aggressive conflict to support one side), resemble those thus far primarily investigated in primates and other group-living animals. Forming a coalition is likely to entail significant costs, and explanations for the existence of such a costly behaviour include reciprocal altruism, kin selection and mutualism. Here, we investigate the patterns of coalition formation in a group of 13 aviary-housed ravens (*Corvus corax*) using a linear mixed models approach. The level of agonistic support provided was found to be positively predicted by the level of agonistic support received, the level of preening received, time spent in association and kinship, providing suggestive evidence for reciprocity and interchange between agonistic support and preening in ravens, mirroring the link between agonistic support and grooming demonstrated in many primate species. While dominance rank did not influence the level of agonistic support provided, when a coalition occurred, the supporter and the supported partner were both more likely to be dominant over the target of aggression, suggesting that ravens may be more likely to provide support when the costs of joining a conflict are lower.

¹Department of Neurobiology and Cognition, University of Vienna, Austria

²Konrad Lorenz Forschungstelle, Grünau, Austria

