

Cat-egorizing play and genuine fighting in cats

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Both cats from this video were part of the “playful group“ in the study, with frequent and long-lasting wrestling as its most important features. Credit: N. Gajdoš-Kmecová et al.

The behavior of cat interactions has been categorized into playful, aggressive and intermediate groups that may help owners distinguish between play and genuine fighting. The study, published in *Scientific Reports*, suggests that cats may engage in a mixture of playful and aggressive behaviors, which could escalate into a fight if not managed by the owner.

Noema Gajdoš-Kmecová and colleagues evaluated 105 [video clips](#) sourced from YouTube and directly from cat owners of interactions between 210 [cats](#). Based on initial observations of the cats, the authors assembled six observable behavior categories including wrestling, chasing and vocalization, which they then used to assess the remaining cats.

Cats were grouped based on the frequency and duration of the six behaviors. Separately, four of the authors reviewed the same videos and came up with three groups to define the interactions between cats: "playful" (friendly interactions); "agonistic" (aggressive [interactions](#)); or a third category, "intermediate" (a mixture of both playful and [aggressive behavior](#)).

More than half of the cats (56.2% or 118 cats) were described by the authors as playful in their interaction, 28.6% (60 cats) were labeled as agonistic, and 15.2% (32 cats) were labeled as intermediate.



In this picture we can see example interaction from our "intermediate group," which was characterized by exchanges of variously patterned interactive behaviors (other than wrestling and chasing)—e.g., long-lasting ones or those frequently interspersed by breaks of inactivity. Credit: N. Gajdoš-Kmecová et al

When comparing the cat behavior groups with the three interaction groupings defined by the authors, they found that wrestling behavior between cats was most closely associated with the playful group, while vocalization and chasing were associated with the agonistic group. The intermediate group, while observed as having characteristics of both, was more closely related to the playful group than the agonistic group. The intermediate group showed prolonged exchanges of behaviors such as laying on their back with their belly upwards, pouncing, stalking, and approaching and grooming each other.



The most predominant feature of the "agonistic group" was vocalization. It was accompanied by periods of inactivity which may have lasted a long time or were interrupted by interactive behaviors, something we can see in this picture/video of example agonistic group's interaction. Credit: N. Gajdoš-Kmecová et al

The authors suggest that this combination of playful and aggressive behaviors may reflect a short-term disagreement in [social behavior](#) between the cats, rather than a break-down in the relationship. The authors suggest that identifying potential tension between cats may help [owners](#) manage the relationship to avoid escalation and the need for separation.

More information: N. Gajdoš-Kmecová, An ethological analysis of

close-contact inter-cat interactions determining if cats are playing, fighting, or something in between, *Scientific Reports* (2023). DOI: [10.1038/s41598-022-26121-1](https://doi.org/10.1038/s41598-022-26121-1).

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