

Social animals should limit individuality to conform with the behavior of the group, says study

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Scientists at Bristol's School of Biological Sciences have observed that group safety was improved when animals paid attention to the behaviors

of each other.

Their findings, accepted for publication in *PLoS Computational Biology*, reveal that simple social behavioral rules can drive conformity behavior in groups, eroding consistent behavioral differences shown by individual animals.

Lead author Dr. Sean Rands said, "Personality suppression may be a common strategy in group-living animals, and in particular, we should tend to see the behaviors of the most adventurous or shy individuals shifting towards what the majority of the group are doing."

The team modeled the behavior of a small group of animals with differing tendencies while performing risky behaviors when traveling away from a safe home site towards a foraging site. They then compared this to their behavior while completing the same activity in a group.

The group-aware individuals spent longer in the safe space and moved more quickly to the foraging spot, making the mission less dangerous.

Co-author Professor Christos Ioannou, explained, "Groups are usually made up of individuals who are different to each other in the way that they normally behave—these consistent individual differences are what determines the personality of the individual.

"Experimental evidence for this comes from animals like the [stickleback fish](#) that we study in our lab. We can measure the [personality](#) of individual fish when they are given a food-finding task on their own, and compare it to what happens when they are put in a group of mixed personalities and given the same task.

"When faced with a social task, we find that the fish tend to suppress their own behavior, and instead conform with what other fish in the

group are doing."

Dr. Rands concluded, "We find that if individuals pay attention to other [group members](#), this has an overall impact on the efficiency of the group, and demonstrates that simple social behaviors can result in the suppression of individual personalities.

"This suggests that compromise may lie at the heart of many social behaviors across the [animal kingdom](#)."

More information: Sean A. Rands et al, Personality variation is eroded by simple social behaviours in collective foragers, *PLoS Computational Biology* (2023). [DOI: 10.1371/journal.pcbi.1010908](https://doi.org/10.1371/journal.pcbi.1010908). [journals.plos.org/ploscompbiol ... journal.pcbi.1010908](https://journals.plos.org/ploscompbiol/article/doi/10.1371/journal.pcbi.1010908) On *bioRxiv*: [DOI: 10.1101/2022.03.21.485155](https://doi.org/10.1101/2022.03.21.485155)

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