

# Animal personalities are more like humans than first thought

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(Phys.org) —A Deakin University study has found for the first time that, just like humans, un-predictability is also a consistent behavioural trait in the animal world.

Animals are known to show consistent individual differences in [behaviour](#), which is often referred to as them displaying 'personality'. In contrast to previous research into these predictable aspects of behaviour, this latest study has shown for the first time that some individual [animals](#), just like humans, are consistently more un-predictable than others over time.

Un-[predictability](#) is a known and accepted aspect of [human behaviour](#) much like we've always viewed predictable aspects of personality. However, until now it has never been studied in animals.

"We all know someone who is notoriously unpredictable –happy, friendly, supportive one day and grumpy and unhappy the next. My experience is that those people tend to be extroverts. Even though I don't know what to expect of them, I am often torn between liking them because they are easy to talk to and fun to be with, and disliking them for their volatility," said Associate Professor Peter Biro, a behavioural ecologist with Deakin's School of Life and Environmental Sciences and lead researcher on this study.

"Until now, un-predictability has only been studied extensively in humans, where it has been linked to learning, ageing, and to certain

diseases that produce erratic behaviour due to fluctuations in brain chemicals.

"The results of this new study shed light on another important aspect of animal personality that has previously not been considered."

Working with Dr Bart Adriaenssens at the University of New South Wales, Dr Biro observed the behaviour of adult male mosquitofish over 132 days. They found that the behaviour of some individuals was consistently more predictable in a given context than others. Mosquitofish were used for the study because they are widespread and easily sampled from ponds in and around cities.

"We observed that individuals differed in their average levels of activity, but also differed in variability about their average activity," Dr Biro explained. "Some individuals chose to be active, others chose to be sedentary, some were consistent in their chosen level of activity, others not. But, we found no association between activity levels and predictability.

"What this tells us is that the fish differed in how un-predictable they were, and that this un-predictability is a consistent attribute over time.

"We believe that un-predictability might represent a form of behavioural flexibility that facilitates learning, or makes animals un-predictable to predators or competitors. Some have even referred to this phenomenon as representing 'free will' in animals. Our study, having confirmed that un-predictability is a trait, now sets the stage for further studies to test for this phenomenon in other species, and to tease out the causes and consequences of this behavioural variation."

The results of this study are published in the November issue of *The American Naturalist*, one of the world's premier peer-reviewed

publications in ecology, population biology, evolution, and conservation research.

Provided by Deakin University

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