

Unnatural selection

Animals have personalities, too. That may be biasing studies of them.

That people have personalities goes without saying. There are the shy, the cruel, the kind, the sceptical. Pet owners will quickly argue that their animals have personalities too. It is hardly uncommon to hear a dog described as friendly or inquisitive, and scientific research has confirmed that dogs do indeed have personality traits similar to those found in people. In dogs, for instance, these are usually referred to as energy-level, affection-aggression, anxiety-calmness and intelligence-stupidity; in people they are extroversion, agreeableness, neuroticism, openness to experience and conscientiousness.

Yet in spite of all this, rather little has been done to find out if such characteristics exist in wild animals. One such study, published recently in *Animal Behaviour*, shows not only that some do, but also that the presence of such traits is skewing the way data are collected by researchers.

The animals in question are birds—collared flycatchers, to be specific. László Gáramszegi, who was at the University of Antwerp at the time of the study (he is now at Doñana Biological Station in Spain), and a team of his colleagues monitored the courtship behaviour of this species. The 41 males observed were nesting in boxes long used by the species, and a single attractive female was placed in an enclosure on top of each box.

First, the team measured the varying intensity of the courtship behaviours displayed by the 33 males that responded to the caged female. After they had collected enough data to act as a baseline, they then attached a white piece of paper to each of the boxes used by these males and watched how the males in question responded to this novelty. They found that roughly half seemed afraid of the paper and reduced their courtship of the female. The other half ignored the paper and continued displaying as they had done before.

In the third phase of the experiment a male was placed in the cage over the box where the female had once been, and the amount of aggression towards this male from the nesting male was measured. In general, those males who had been undeterred by the presence of the paper attacked the newly presented competitor with vigour while those who had been intimidated by it seemed reluctant to attack the putative competitor if, indeed, they attacked him at all.

Another part of the study analysed male willingness to fight in the presence of potential predators, by watching aggressive interactions between nesting males and caged competitors when an unfamiliar human slowly approached the site. Those males who had been afraid of the paper often fled when the human was as much as 20 metres away. Those who had continued their courtship in the presence of the paper again proved their courage and often kept fighting until the observing human was just two metres away.

Lastly Dr Gáramszegi and his team placed traps within the nesting boxes and monitored which birds were caught. They found that the aggressive, risk-taking males were twice as likely as non-risk-takers to be trapped.

These results are both interesting and worrying. They are interesting because this is the first time that differences in personality have been shown in wild birds. If birds, as well as mammals, have personalities, it may make it easier to study the evolutionary pressures that give rise to such systematically different ways of behaving within a single species.

The results are worrying, however, because ecologists conduct thousands of studies each year that involve analysing animals caught in traps. These analyses are based on the assumption that the animals collected represent a randomly selected and thus representative sample of

the population. Yet among collared flycatchers this does not appear to be the case. Instead it looks as if such trapping studies are selecting the bravest individuals. If that is true more widely, decades of ecological research will have to be re-examined. For this is one case where fortune most definitely does not favour the bold.

UNNATURALI selection. **The Economist**, New York, May 21, 2009. Disponível em: <www.economist.com>. Acesso em: 3 jun. 2009.

A utilização deste artigo é exclusiva para fins educacionais