

Birdsong bluster may dupe strange females, but it won't fool partners

December 18 2012



Male zebra finches can fake their birdsong to fool unsuspecting females

(Phys.org)—Male birds use their song to dupe females they have just met by pretending they are in excellent physical condition. Just as some men try to cast themselves in a better light when they approach would-be dates, so male birds in poor condition seek to portray that they are fitter than they really are. But males do not even try to deceive their long-term partners, who are able to establish the true condition of the male by their song.

Researchers at the University of Exeter studied zebra finches to establish

how trustworthy birdsong was in providing honest signals about the male's value as a mate. Singing is a test of the condition of [birds](#) because it uses a lot of energy. Fit and healthy birds are thought to be able to sustain a high song rate for longer, making them more attractive to females.

The research team, which included scientists from the Université de Bourgogne in France, looked at short and longer encounters with unknown females, as well as patterns of song around females who were familiar to them.

The team discovered that males in poor condition could "cheat" and vary their song to give a false impression to [stranger](#) females. But they did not even try to fool those who knew them, who used song as a reliable test of their underlying qualities. The research is published on December 19 in the journal [Proceedings of the Royal Society B](#).

Dr Sasha Dall, of the University of Exeter, was involved in the research. He said: "Every man wants to cast himself in a favourable light when he meets an [attractive female](#), and we have shown that birds are no different. But just like many humans, it seems zebra finch males are unable to dupe females who know them well enough. When the birds were in an established relationship, the female could tell the true condition of a male by his song, and judge whether he would make a good father for her next [brood](#)."

[Zebra finches](#) are Australia's most popular finch. They make common pets and are widely used in scientific research. They are particularly easy to keep, and adapt extremely well to their surroundings. For [zebra finches](#), both colour and birdsong are important factors in choosing a mate.

The research was funded through a young researcher prize of the

Bettencourt-Schueller Foundation for life sciences and a PhD grant, as well as two honorific master grants provided by the Conseil Régional de Bourgogne in France.

The team studied 91 male and 91 female birds from a colony at the Université de Bourgogne and 12 of each gender from a colony at the University of Exeter. The body condition of each of the birds was measured. Scientists then videoed both brief and longer encounters between birds of each gender who were unknown to each other, and patterns of behaviour when they were with their mate, with whom they pair for life. They were also monitored to see if they showed signs of mutual attraction and going on to breed.

In the study, there was no difference in the singing of male single birds in either short or long encounters with unknown [females](#). But, when in front of their partners, paired birds who were in good condition sang at a higher rate than those in poor condition.

Dr Morgan David, who led the research, said: "This is the first study to find evidence that the link between male body condition and birdsong differs depending on the context of the encounter with the opposite sex. It could have significant implications for learning more about the evolution of courtship patterns such as birdsong."

Provided by University of Exeter

Citation: Birdsong bluster may dupe strange females, but it won't fool partners (2012, December 18) retrieved 26 April 2024 from <https://phys.org/news/2012-12-birdsong-bluster-dupe-strange-females.html>

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