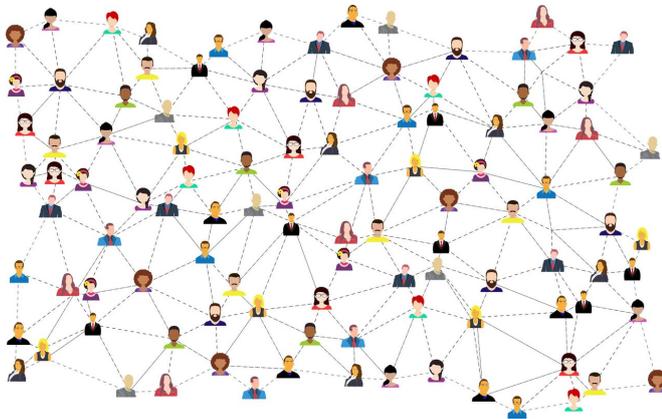


Social influencers: What can we learn from animals?

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Research from Oxford University calls us to reconsider how behaviours may spread through societies of wild animals, and how this might provide new insights into human social networks.

Our social connections to one another, whether it be online or in real life, give rise to our 'social networks.' Previously, it has often been assumed that the individuals with the most social connections are the primary 'social influencers' and most likely to acquire, and spread, new behaviours. Behaviours were viewed to spread simply based on the amount of exposure to others, just like contracting a contagious disease might depend on exposure to infected individuals. This viewpoint has not only been applied to humans, but also a range of different animal species too.

However, a new study from Oxford University suggests our understanding of animal behaviours can be enhanced by drawing on the latest findings in human systems, which show that the most influential individuals are not necessarily the most social ones. Instead, the most important individuals often tend to be those occurring in tight knit

friendship circles. Even though these individuals may have relatively few [social connections](#), they wield high influence within their cliques and promote the rapid spread of new behaviours.

The new study, published today in the journal *Trends in Ecology and Evolution*, shows how these recent insights, coming from contexts as varied as how new technologies are adopted, how political movements occur, and even how social media hashtags spread, can now be harnessed for furthering our understanding of animal societies too. The study presents examples showing how even in the most basic systems, small changes in how behaviours spread can enormously affect which animals might adopt a behaviour, and which might be important to spreading it.

The author of the study, Dr. Josh Firth, said: "Just like in humans, various animal species are known to be capable of social considerations, such as when to adopt a behaviour, or who to learn from. These choices mean that behaviours don't spread like diseases."

The study also draws on recent examples that are already providing new insights into [animals'](#) social lives, and how this might inform our understanding of our own social networks. For example, fish appear to make fine-scale judgements about when to copy their shoal-mates' behaviour, and birds may 'follow the majority' when learning to acquire new food. By carefully considering how these social choices affect the spread of behaviour, animal systems may provide a new way of examining how different types of behaviours, such as foraging or mating behaviours, might spread differently, and which factors determine which individuals hold the most social influence.

Dr. Firth added: "Studying wild animal populations holds exceptional advantages, such as the ability to experimentally manipulate natural social networks, and to track individuals over long time periods and

many generations."

As such, animal populations now provide new ways of investigating the fundamental science behind how behaviours spread, which may be beneficial for understanding social systems generally. So, while all the intensive research on human social networks may be transforming the way we think about animal's social lives, it is likely that animal [behaviour](#) can now teach us about the workings of our own societies too.

The study, titled "Considering Complexity: Animal Social Networks and Behavioural Contagions," is published in the journal *Trends in Ecology and Evolution*

More information: Josh A. Firth, Considering Complexity: Animal Social Networks and Behavioural Contagions, *Trends in Ecology & Evolution* (2019). [DOI: 10.1016/j.tree.2019.10.009](https://doi.org/10.1016/j.tree.2019.10.009)

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