

For canaries, the sight of other sick birds is enough to set off an immune response

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A team of researchers from Oklahoma State University, the University of Central Oklahoma and the University of Arkansas has found that the mere sight of sick birds of their own kind is enough to set off an

immune response in healthy canaries. In their paper published in the journal *Biology Letters*, the group describes experiments they conducted with caged birds in their lab.

Prior research has shown that many animals, humans included, tend to avoid others of their kind when they show signs of illness. But for some species, doing so might be more problematic than risking getting sick. Birds that rely on safety in numbers, for example, may need another strategy for dealing with ailments. In this new effort, the researchers found that for at least one species of bird, simply seeing others of its kind become sick was enough to kick off an [immune response](#).

The experiments by the researchers involved setting groups of cages with canaries in them across from one another and then infecting one of the groups with a mild bacterial [infection](#). Symptoms of the infection become obvious as infected [birds](#) become lethargic after developing conjunctivitis. The researchers note that such infections make the birds look very sick. In their experiment, the researchers were careful to place the uninfected birds far enough away from sick birds to keep them from getting infected. They also set up an identical scenario in a distant part of the lab as a control—neither group was infected with the bacteria.

The researchers then monitored what happened over the course of a month, collecting [blood samples](#) and making notes regarding how sick birds looked and how easily a well bird could see a sick bird. They found that as the infected birds started to look sick, the immune systems of the healthy birds began to stir. CH_{50} measurements showed a rise in all of the healthy birds and rose even more in those birds who had the best view of the sickest birds. The researchers also found white blood cell counts rose. Notably, cytokine levels did not change.

More information: Ashley C. Love et al, Perception of infection: disease-related social cues influence immunity in songbirds, *Biology*

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