

Liars found to coordinate body movements with the person they are lying to

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A team of researchers from Erasmus Universiteit Rotterdam, Lancaster University and the Open University has found that when people lie to someone, they tend to mimic that person's body movements. In their

paper published in the journal *Royal Society Open Science*, the group describes experiments they conducted with college students encouraged to lie.

Much research has been conducted into lying over the years—[social scientists](#) would like to know how people lie and in what circumstances, police would like to know if suspects are lying to them, and governments would like to know if spies or other people of interest are giving them accurate information. Efforts to prevent lying include administering a drug that relaxes the subject's inhibitions. And scientists have also put a lot of effort into detecting lying, such as analyzing body or eye movements, or measuring multiple bodily characteristics with lie detector machines. Unfortunately, such efforts have not led to any foolproof techniques. In this new effort, the researchers suggest detecting lies might involve studying whole conversations between people, not just the responses of the person being questioned. They suggest the person asking the questions might also play a role. To find out if that might be the case, the researchers conducted lying experiments with college student volunteers.

The experiments consisted of asking volunteers to solve a difficult puzzle and then recording interviews with those students by other [student](#) volunteers. To encourage lying, the researchers lied to the volunteers, telling them the puzzle should be easy to solve when it was actually quite difficult. The researchers also pretended that they accidentally left puzzle solutions in the room where the students were attempting to solve the puzzle and then asking the students not to report that. The researchers then asked a second [volunteer](#) to interview the first about solving the puzzle—both were fitted with accelerometers on their heads to capture [physical movement](#) during the interview.

The researchers found that the volunteers being interviewed tended to mimic the physical actions of their interviewer when they were lying. And the more complex or difficult the lie, the more closely they

mimicked their interviewer. The researchers suggest this indicates that lying requires so much mental work that the body responds by simply mimicking the behavior of another person rather than generating actions on its own.

More information: Sophie Van Der Zee et al. A liar and a copycat: nonverbal coordination increases with lie difficulty, *Royal Society Open Science* (2021). [DOI: 10.1098/rsos.200839](https://doi.org/10.1098/rsos.200839)

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