

# Which way you lean -- physically -- affects your decision-making

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(Medical Xpress) -- We're not always aware of how we are making a decision. Unconscious feelings or perceptions may influence us. Another important source of information—even if we're unaware of it—is the body itself.

“[Decision making](#), like other cognitive processes, is an integration of multiple sources of information—memory, visual imagery, and bodily information, like posture,” says Anita Eerland, a psychologist at Erasmus University Rotterdam in the Netherlands. In a new study, Eerland and colleagues Tulio Guadalupe and Rolf Zwaan found that surreptitiously manipulating the tilt of the body influences people's estimates of quantities, such as sizes, numbers, or percentages. The findings will appear in an upcoming issue of *Psychological Science*, a journal published by the Association for Psychological Science.

When we count, we think of smaller numbers to the left and larger ones to the right. The researchers surmised that leaning one way or the other—even imperceptibly—might therefore nudge people to estimate lower or higher. To test this hypothesis, study participants—33 undergraduates—stood on a Wii Balance Board that imperceptibly manipulated their posture to tilt left or right or stay upright while they answered estimation questions appearing on a screen. The participants were told they probably didn't know the answers and therefore would have to estimate; they were also instructed to stand upright throughout the trials. A representation on the screen, below the question, of the person's posture showed it to be upright even when it was not. The

participants answered the questions one by one verbally.

In the first experiment, the estimations were of different kinds of quantities—e.g., the height of the Eiffel Tower or percentage of alcohol in whiskey. In the second, the quantities were all of the same kind—How many grandchildren does Queen Beatrix of the Netherlands have? How many Number 1 hits did Michael Jackson have in the Netherlands? The answers were all between 1 and 10.

As expected, participants gave smaller estimations when leaning left than when either leaning right or standing upright. There was no difference in their estimates between right-leaning and upright postures.

The researchers point out that body posture won't make you answer incorrectly if you know the answer. "Your body posture may nudge your estimates in a particular direction," says Zwaan. Adds Eerland: "[Posture](#) doesn't overwrite knowledge."

Still, says Zwaan, we should not mistake our cognitive processes as perfectly and consciously rational. "Decision-making is not a pristine process. All sources of information creep into it, and we are just beginning to explore the role of the [body](#) in this."

**More information:** [www.psychologicalscience.org/i ...](http://www.psychologicalscience.org/i...)  
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Provided by Association for Psychological Science

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