

Practicing Certain Poses Creates a Sense of Power

Live Science

Wynne Parry

Date: 01 October 2010 Time: 07:17 AM ET

When suiting up with that “power tie,” you may also want to strike a pose – a power pose, that is.

New research indicates that holding a pose that opens up a person's [body](#) and takes up space will alter hormone levels and make the person feel more powerful and more willing to take risks.

"These poses actually [make you more powerful](#)," said study researcher Amy C.J. Cuddy, a social psychologist at the Harvard Business School.

The opposite also proved true: Constrictive postures lowered a person's sense of power and willingness to take risks.

Cuddy teaches the results of the study to her students.

"I literally watch M.B.A. students adjust their posture as I'm telling them about the findings," Cuddy told LiveScience. Many later reported positive results from job interviews, meetings and other situations. "It's some of the most satisfying research I have done," she said.

The power of posture

In the study, researchers randomly assigned 42 participants, 26 of them women, to assume and hold a pair of either low- or [high-power poses](#). The high-power posers spent one minute sitting in a chair in front of a desk, with feet resting on it and hands clasped behind the head, and, in the other pose, they stood, leaning forward over a table, with [arms](#) out and hands resting on the table. In both poses, the participants took up space, an expression of power not unique to the human world. For example, [peacocks fan their tails](#) to attract a mate and chimpanzees bulge their chests to assert their hierarchical rank, the researchers noted.

"These power poses are deeply intertwined with the evolutionary selection of what is ‘alpha,'" wrote the researchers in the September issue of the journal Psychological Science.

The low-power group sat for one minute with their hands clasped on their thighs, [legs](#) together, and also stood for one minute with arms folded and legs crossed.

After the subjects had finished their poses, they were given \$2 with the option of keeping it or gambling it on the roll of a die. Depending on the outcome, the subjects could double their money or lose it.

Subjects also were asked to rate how "powerful" and "in charge" they felt. The researchers measured hormone levels before and after the poses.

Those who held the high-power poses saw their testosterone increase, while their levels of a stress hormone, cortisol, decreased. Testosterone is associated with dominance and tends to rise before a competition and after a win, but not after a defeat, according to prior research. People in power tend to have lower levels of cortisol. Although cortisol levels can fluctuate in response to challenges, chronically elevated cortisol levels seen among people with low status have been associated with health problems.

The high-power posers [were more likely to risk](#) their \$2 for the chance to double it: Eighty-six percent took the gamble, compared with 60 percent of the low-power posers. They also reported feeling more powerful and in charge than did the low-power posers.

How universal is it?

This study is part of a field of psychological research called embodiment. The basic idea is that the mind/body relationship is not a one-way street, with the mind giving orders for the body to carry out. Rather, the body also influences the mind. Other studies have indicated, for example, that holding an expression, like a smile, can alter one's mood, as can a hunched posture.

The new research seems to be the first to link body postures with mental state and hormone levels, said Thomas Schubert, a social psychologist at the Lisbon University Institute in Portugal, was not involved in the study.

Schubert has studied the bodily feedback produced by fist-clenching. After making and holding a fist, men reported feeling more powerful. Female subjects, by contrast, had less hope for control after making a fist. The researchers attributed the results to the idea that men associate their own physical force with power, while women associate it with powerlessness, according to the study, which was published in 2004 in the journal *Personality and Social Psychology Bulletin*.

Posing in private

No such gender difference showed up in the newer study, suggesting these poses have a resonance that transcends gender, according to Schubert.

In other words, while the high-power poses may seem to typify [body language](#) associated with Western men, they appeared to make women feel powerful as well.

The fact that the subjects assumed their poses while isolated, without even a mirror for feedback, was key to the results, Cuddy said.

"This isn't about how other people are perceiving you in these poses," she said.

The presence of observers could have produced different results. Although the power of space-occupying poses is universal, the configuration of what is considered socially acceptable may vary between men and women and among cultures, according to Cuddy.

But holding a pose with no one around can potentially affect the person's later interactions. "I am really interested in how that has the potential to change the world for women," she said.

Like Cuddy, her fellow study researcher, Dana Carney, a social psychologist at Columbia University's Graduate School of Business, tells her students about the power of the postures. However, she says, she adds a caveat: "Don't walk into a job interview and begin taking power poses."

Rather, she said, use power poses to prepare your system to endure [a successful interview](#), business meeting or some other stressful event.

The trick

Embodiment research entails a particular challenge: If participants suspect the true nature of the experiment, they may alter their behavior and skew the results.

In a study published in 1988 in the Journal of Personality and Social Psychology, three researchers studying the effects of smiling came up with a clever way to deceive their subjects. They told the participants that the study was of how people performed tasks with parts of their body not normally used for those tasks. They then had the participants hold a pen in their teeth.

This approach opened the door for more research into the body's influence over the mind, according to Schubert.

A 2006 study published in the journal Psychological Science used the same technique and found that a "surreptitiously induced" smile, held while viewing pictures of faces, reduced racial bias toward blacks.

In the power-pose study, researchers convinced the participants that the study focused on how the placement of electrodes above and below the heart could influence the collection of physiological data.