

# How posture and gestures affect state of mind

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Most people are aware of the mind-body connection—how your mental processes can affect your physical state. If you feel frightened, your heart races. Being embarrassed can cause you to blush. When you think of something happy, you are likely to smile. Meditating may even lower your blood pressure. But what about the reverse—a body-mind connection? Can altering your physical state in some way affect your mental state?

Accumulating research is revealing that body position, postures, gestures and [facial expressions](#) can indeed influence how you think, feel and even behave. For example, if you wrinkle your nose, an odor may smell more unpleasant. Raise your eyebrows and you may be more surprised by

something you read. How you physically lean may, oddly enough, affect your perception of size: Lean left and you're likely to think the Eiffel Tower is shorter than when you lean right. And though it may not have worked for Lady Macbeth, recent studies have found that handwashing can have a psychologically cleansing effect, lessening feelings of guilt and remorse.

## Power poses and confidence

Much of the research on the body-mind connection (called embodied cognition by researchers) has focused on various expansive (or "power") poses, which involve open positions, with arms and elbows away from the body and chin raised—as opposed to closed postures where the legs or arms are crossed, the head is down and the body slumped or slouched over. For example, in a small study published in the journal *Psychological Science* in 2010, people who sat or stood in expansive poses for just one minute not only felt more powerful and in charge, they also had an increase in testosterone and a decrease in the [stress hormone cortisol](#). "By simply changing physical posture, an individual prepares his or her mental and physiological systems to endure difficult and stressful situations," the paper concluded.

In another study that year in the same journal, people who assumed open body positions (the ankle of one leg resting on the thigh of the other leg, and an arm resting on the back of a chair) were more likely to take action (pick a card) during a blackjack game and reported a higher sense of power than those in constricted positions (legs together, shoulders dropped, hands under thighs).

Just sitting up straight, a simple power pose, may increase self-confidence, according to a study in the *European Journal of Social Psychology* in 2009. Participants wrote down their strengths and weaknesses and described themselves in a variety of ways, including

whether they were good candidates for a job. Those who did the task while sitting up straight, chest out ("confident" posture) rated themselves higher and had more confidence in their self-attitudes than those who sat slumped, with face looking down at knees ("doubtful" posture). That is, "fake it till you make it."

Power poses may also help lessen pain, suggested a study in the *Journal of Experimental Social Psychology* in 2012. People who assumed expansive yoga poses (standing with legs apart and arms raised) had higher tolerance to discomfort and pain than those in submissive (kneeling) or neutral poses (standing with hands at sides). The researchers concluded that even if you don't have control over your circumstances, you can behave as if you did by assuming a dominant pose, which, in turn, may decrease sensitivity to pain.

Words to the wise: Research on the body-mind connection, though still in its infancy, suggests that you may benefit by paying attention to how you hold your body. If you act as though you feel powerful and self-confident, you may achieve that actual feeling due to changes in body biochemistry. A few caveats: Being aware of the phenomenon may lessen the effect. And even if you achieve the effect, it may not persist over time.

Keep in mind, too, that body postures have a cultural element, as was illustrated by a study in the *Journal of Experimental Social Psychology* last November that included Americans and East Asians. Though some expansive positions (like hands-spread-on-desk pose) increased feelings of power in both groups, the "feet-on- desk" power pose did not have this effect in East Asians because their cultural norms value modesty, restraint and humility. Nor would this pose be viewed well in Arab cultures, which consider it an insult to show the bottoms of shoes.



#### 4 Mood-Changing Poses

Here are some examples of how your body posture may influence your state of mind:

To increase perseverance, cross your arms. A study in the *European Journal of Social Psychology* in 2008 found that when people crossed their arms while trying to solve an unsolvable puzzle, they persisted longer at the task than those in a neutral posture, who had their arms over their thighs. For solvable problems, arm crossing was associated with better performance. Though crossing your arms may give the impression of defensiveness or disinterest in interpersonal settings, it can be good for achievement, the researchers said.

To increase willpower, tense your muscles. In a series of experiments published in the *Journal of Consumer Research* in 2011, subjects who clenched their fists or contracted their leg muscles, for example, had better self-control in various situations, such as having to drink a nasty

"health" tonic, withstand the pain of icy water, part with money or resist tempting foods. The study shows that "the body, not just the mind, can influence self-control," the researchers said—or, put simply, "steely muscles can lead to steely resolve." The key may be to firm your muscles before your willpower runs out.

To improve your mood, smile. The old adage "grin and bear it" has proven value, as indicated in a study in *Psychological Science* in 2012. University students who simulated different types of smiles while performing stressful tasks had lower heart rates than students who donned neutral expressions, with a full-on "Duchenne" smile (which engages both mouth and eye muscles) linked to lower stress levels than social smiling (which engages just mouth muscles). And a classic study from 1988 found that activating smile muscles made people rate cartoons as funnier. For a more positive affect in general, try nodding your head yes and smiling more throughout the day. In contrast, just lowering eyebrows (in effect, frowning) had an immediate negative effect on mood in a 2012 study in *Emotion*. Interestingly, as some researchers have noted, Botox injections, which paralyze facial muscles, could have added positive effects since the drug inhibits frowning muscles.

To be more levelheaded when shopping, assume a balanced position. Can the simple act of wearing high heels, stepping off an escalator or engaging in other "balance-activating" activities moderate your spending habits? Possibly, according to a 2013 study in the *Journal of Marketing Research*, in which people made various buying decisions while in different states of balance—standing on one foot, leaning back in a chair, playing a Wii Fit game. When focused on their physical balance, they were more likely to buy a mid-range television, rather than a large expensive one or a small cheap one. They were also more likely to make compromise choices for a printer or a car.

Provided by University of California - Berkeley

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