

COGS300

Power posing

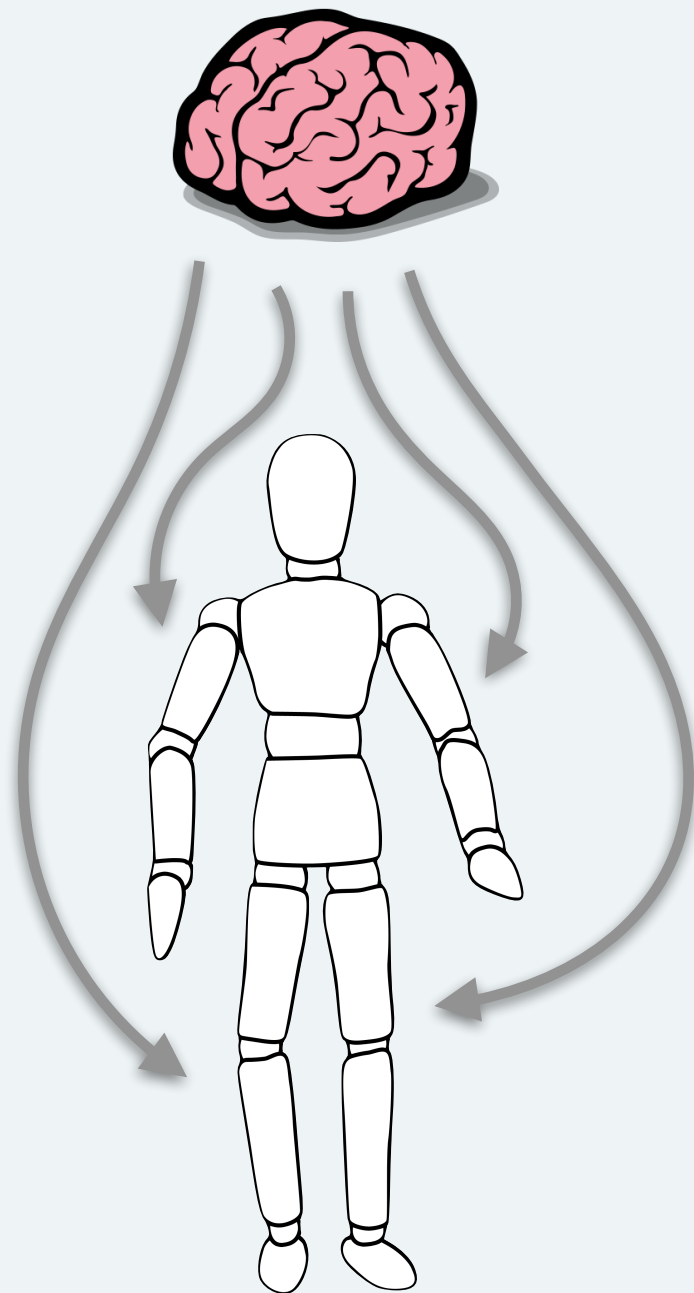
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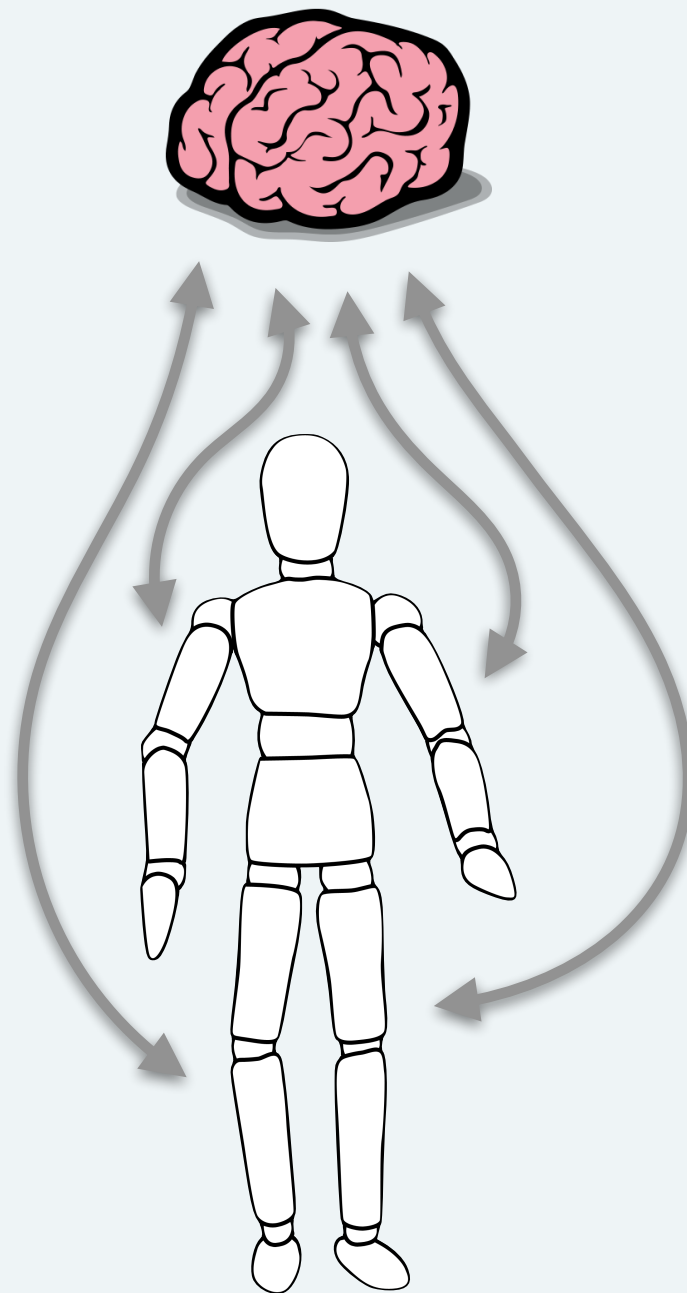
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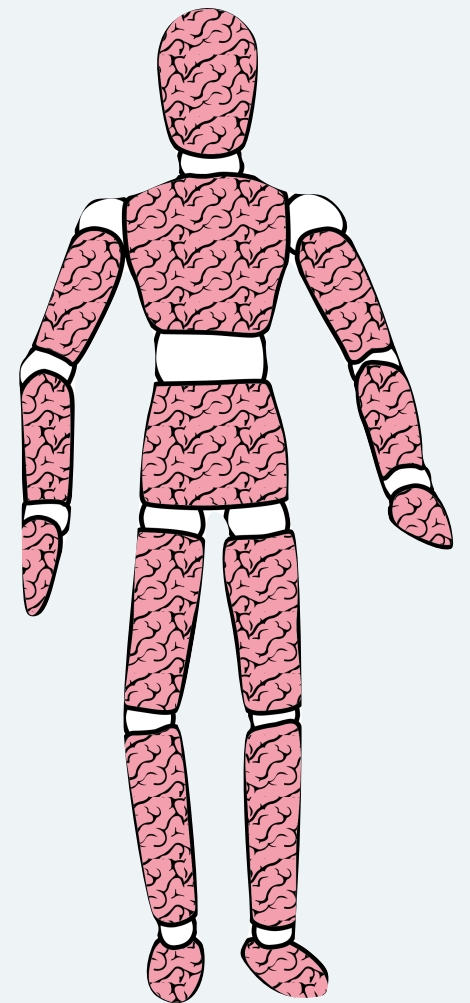
**traditional
“disembodied”
cognitive science**



**body-cognition
interactions**



**radical embodied
cognition
(replacement
hypothesis)**



Embodied cognition

- **causative** versions of **embodied cognition**: cognitive states may be caused by bodily phenomena where causation is usually assumed to go in the other direction...
 - smiling can make us happier (?)
 - expansive poses can make us more powerful (?)
 - ...

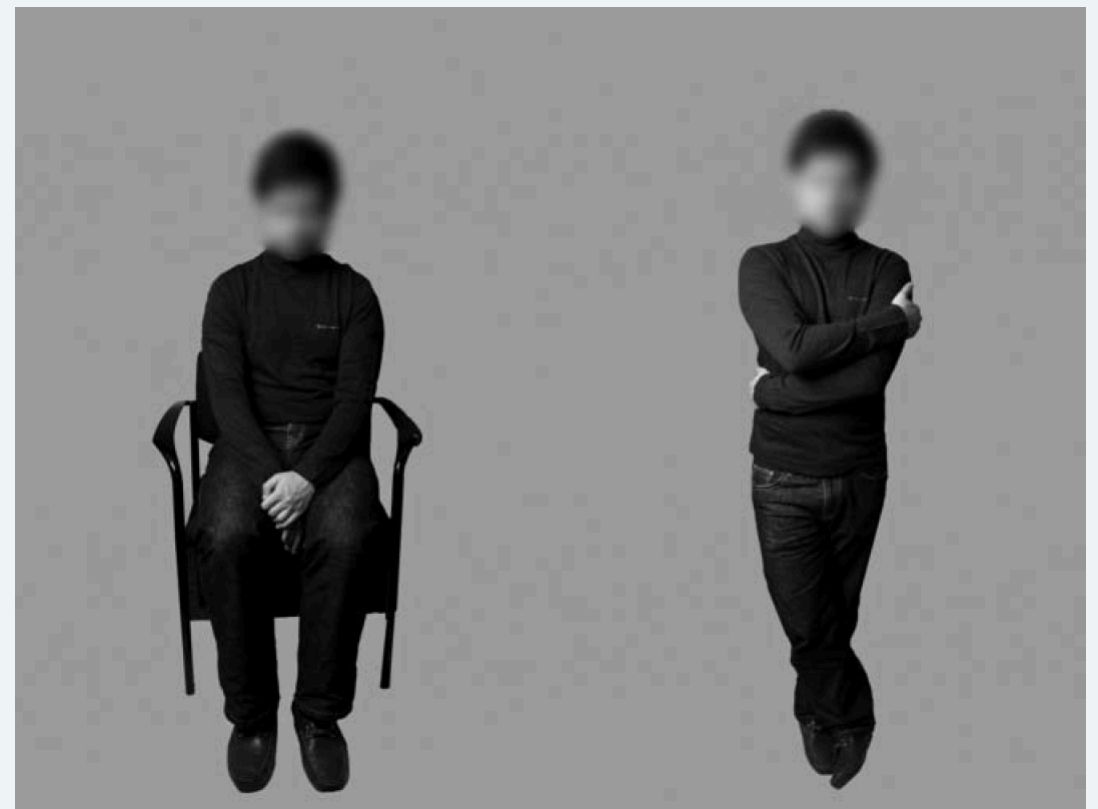
Power posing

- hypothesis: expansive poses can lead to...
 - feeling more powerful
 - being less risk-averse
 - higher levels of testosterone, lower levels of cortisol

High power



Low power



Power posing

- methods:
 - 42 subjects
 - 21 assumed high-power pose
 - 21 assumed low-power pose
 - 1. measure testosterone / cortisol
 - 2. assume assigned pose for 2 minutes
 - 3. gambling task (measure risk-taking)
 - 4. self-reported feelings of power
 - 5. measure testosterone / cortisol again

Power posing: results

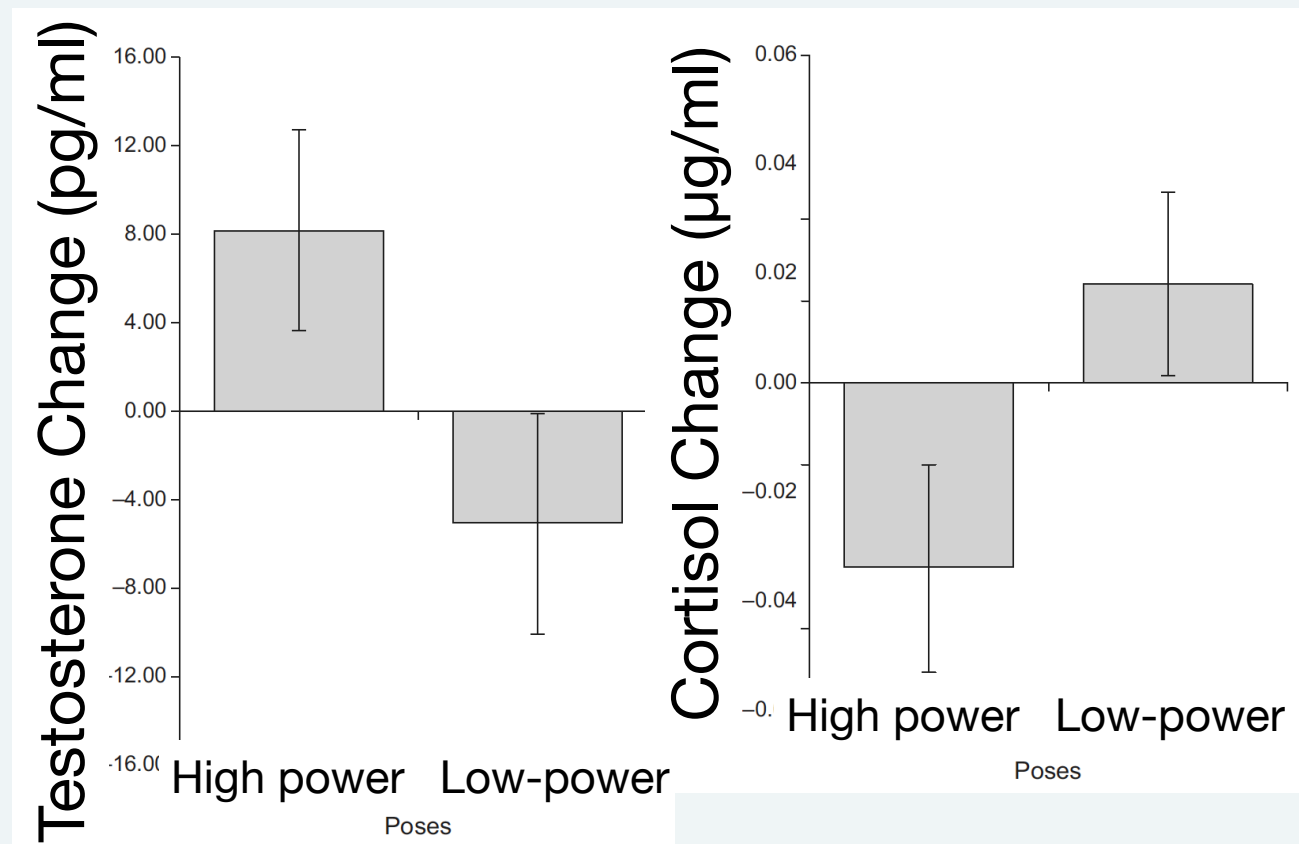
1

Finally, high-power posers reported feeling significantly more “powerful” and “in charge” ($M = 2.57$, $SD = 0.81$) than low-power posers did ($M = 1.83$, $SD = 0.81$), $F(1, 41) = 9.53$, $p < .01$;

2

Also consistent with predictions, high-power posers were more likely than low-power posers to focus on rewards—86.36% took the gambling risk (only 13.63% were risk averse). In contrast, only 60% of the low-power posers took the risk (and 40% were risk averse), $\chi^2(1, N = 42) = 3.86$, $p < .05$;

3



Power posing: replication?

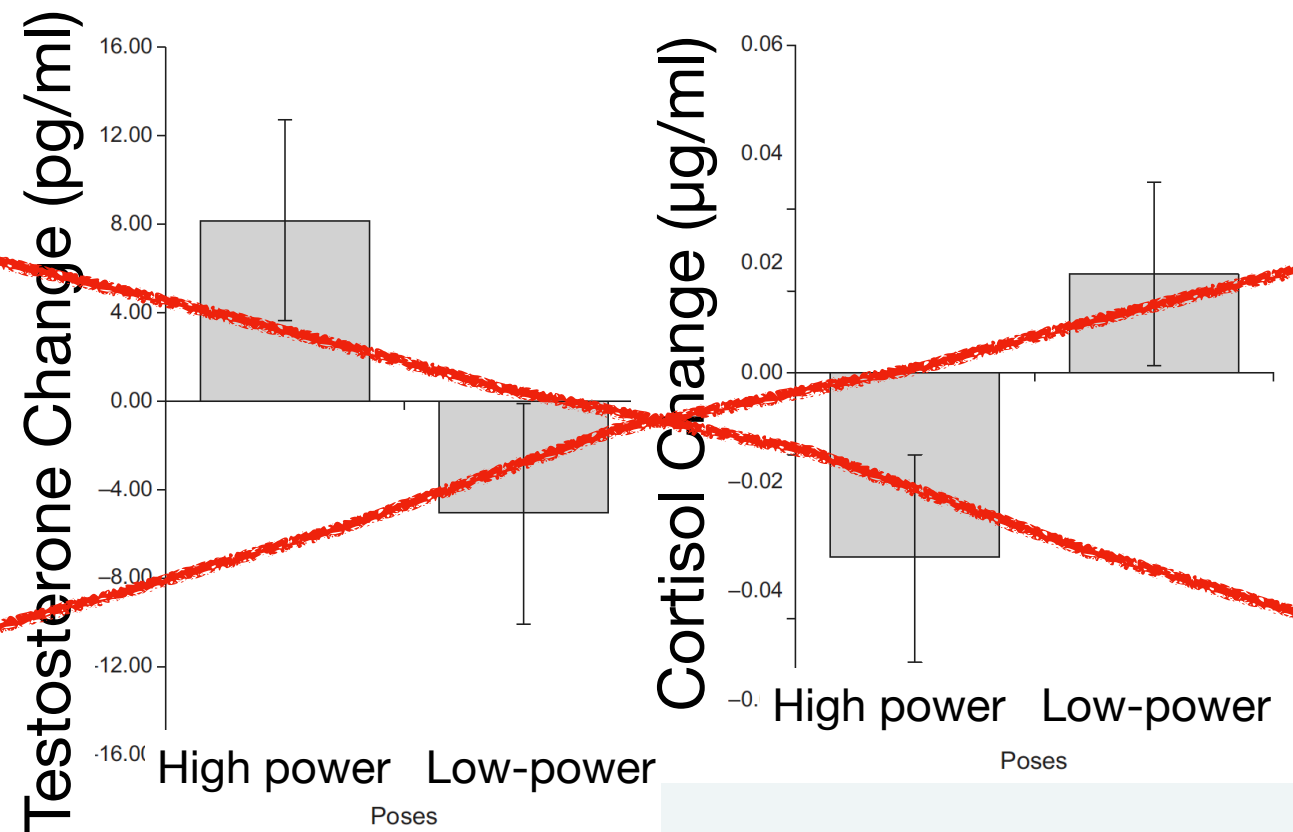
1

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Power posing: replication?

1

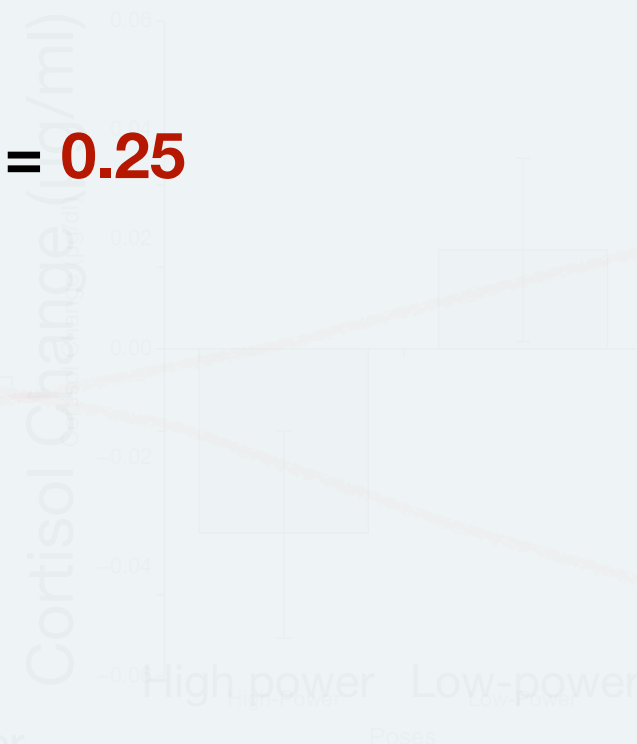
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2

Also consistent with predictions, high-power posers were more likely than low-power posers to focus on rewards—86.36% took the gambling risk (only 13.63% were risk averse).
difference = $2.57 - 1.83 = 0.74$ over posers took the risk (and 40% were risk averse), $\chi^2(1, N = 42) = 3.86$, $p < .05$;

3

difference in replication = 0.25



Power posing: results

1

.30. Finally, high-power posers reported feeling significantly more “powerful” and “in charge” ($M = 2.57, SD = 0.81$) than low-power posers did ($M = 1.83, SD = 0.81$), $F(1, 41) = 9.53$, $p < .01$; $r = .44$. Thus, a simple 2-min power-pose manipulation

2

Also consistent with predictions, high-power posers were more likely than low-power posers to focus on rewards—86.36% took the gambling risk (only 13.63% were risk averse).

Have a think: what could be the reasons for the results not replicating?

3

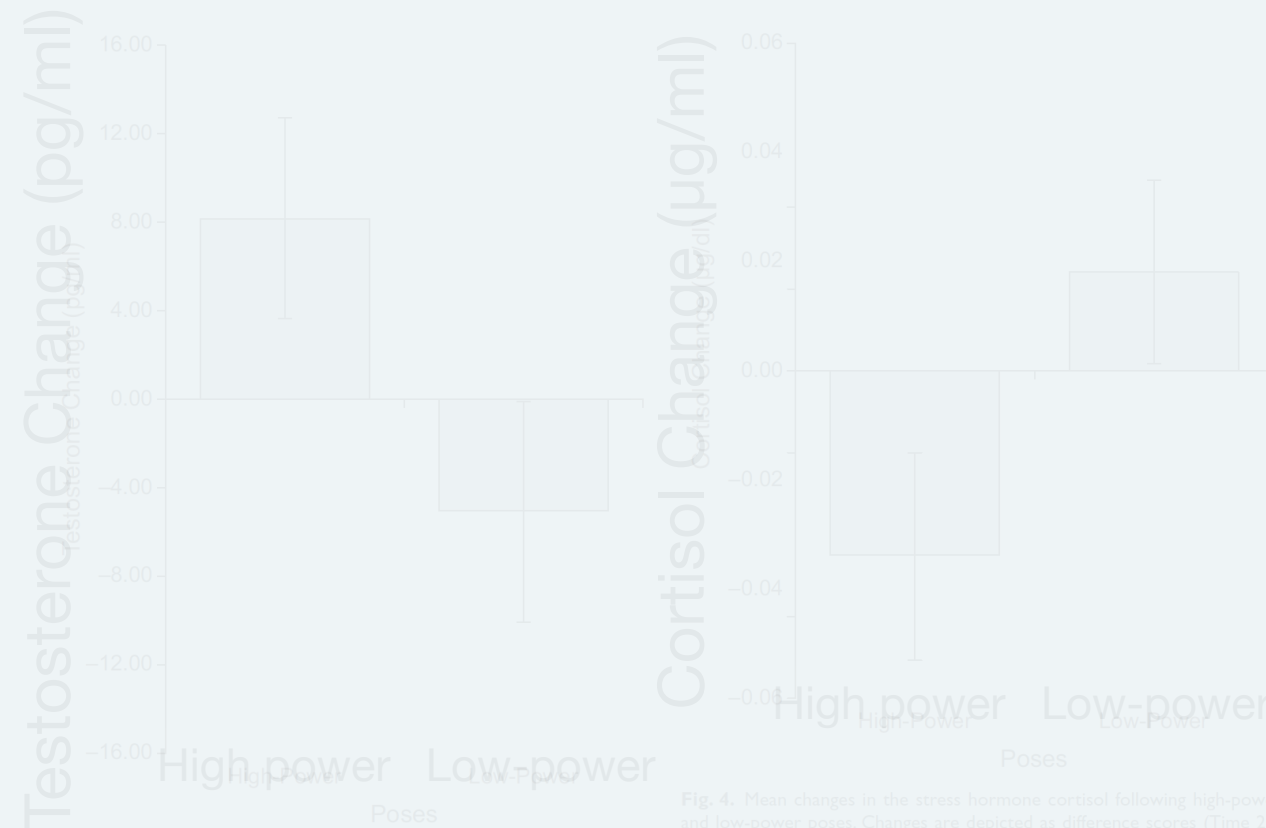


Fig. 4. Mean changes in the stress hormone cortisol following high-power and low-power poses. Changes are depicted as difference scores (Time 2 – Time 1).

Dr. Dana Carney's statement



My position on “Power Poses”

Regarding: Carney, Cuddy & Yap (2010).

Reasonable people, whom I respect, may disagree. However since early 2015 the evidence has been mounting suggesting there is unlikely any embodied effect of nonverbal expansiveness (vs. contractiveness)—i.e., “power poses” - on internal or psychological outcomes.

As evidence has come in over these past 2+ years, my views have updated to reflect the evidence. As such, **I do not believe that “power pose” effects are real.**

Methodological comments

...

3. The sample size is tiny.

4. The data are flimsy. The effects are small and barely there in many cases.

5. Initially, the primary DV of interest was risk-taking. We ran subjects in chunks and checked the effect along the way. It was something like 25 subjects run, then 10, then 7, then 5. Back then this did not seem like p-hacking. [...]

...

8. For the risk-taking DV: One p-value for a Pearson chi square was .052 and for the Likelihood ratio it was .05. The smaller of the two was reported [...]

...

10. The self-report DV was p-hacked in that many different power questions were asked and those chosen were the ones that “worked.”

Potential confounds

1. The experimenters were both aware of the hypothesis. [...]

2. When the risk-taking task was administered, participants were told immediately after whether they had “won.” [...] Research shows that winning increases testosterone (e.g., Booth, Shelley, Mazur, Tharp, & Kittok, 1989). Thus, effects observed on testosterone as a function of expansive posture may have been due to the fact that more expansive postured- subjects took the “risk” and you can only “win” if you take the risk. [...]