Introduction:

Over many years, research has been conducted as well as reviewed with regards to 'power posing', and its effects on both verbal and nonverbal behavior. Though popular in 2012 and then again recently, power posing remains of interest because it is a highly controversial topic in the realm of social psychology (Elsesser, 2018). Many studies have verified, as well as refuted, its efficacy as a tactic to improve confidence and reduce stress before a meaningful interaction- especially social ones- such as a job interview, an exam, or a public speaking event.

One notable article, published by Amy Cuddy et al., seemingly proved the efficacy of power posing (Cuddy, 2012). However, a gamut of articles attempting to replicate the methods of the prospective study or disprove this article has increased. The question of its real effects remain largely unanswered, so, in this proposal, I seek to further clarify whether this significant change in non-verbal behavior affects subsequent verbal and non-verbal behaviors. Studies have shown that external cues such as open and expansive postures cause testosterone, a sex hormone, to increase internally, and cortisol, a stress hormone, to decrease internally. This indicates that power posing causes physiological, behavioral, and psychological changes consistent with an increase in confidence and ability to handle stress (Carney, 2010). Yet, other studies have concluded that adopting power poses does not show any effect on hormones or risk tolerance in men or women (Ranehill, 2014). This controversial assortment of studies leaves researchers and

those who wish to learn more about power posing with an incomplete understanding of its effects.

Although many prospective studies have been conducted, many retrospective studies in favor of power posing seem to exhibit selective reporting. Research that proves a hypothesis is more likely to be published than research that disproves it, thereby creating a bias (Simmons, 2017). Interestingly, Cuddy et al., the authors of the original paper, responded to the Simmons et al. findings to debase their claims of bias and selective reporting (Cuddy, 2018).

Overview:

I have designed this research proposal with the intention of studying the phenomenon of "Power Posing", and whether its efficacy is based in true science or merely on a variation of the well-established 'Placebo Effect'. An in-class prospective study using the same population sample will be used to validate or reject the findings of the study entitled: "The Benefit of Power Posing Before a High Stakes Social Evaluation", published by Amy Cuddy et al. Due to a lack of technological and informational knowledge and capability, this in class trial will not be able to speak to hormonal changes, but will hopefully show a shift in behaviors depending on the pose adopted prior to observation.

Methods:

This in-class study must be simple, easy to replicate, and comprehensible for the parties being observed under their designated conditions. Hence, I will use the bare minimum of variables and constants to maintain ease without compromising the validity and reliability.

The independent variable will be the pose adopted by the participant- either open/expansive or closed/contractive. Examples of open/expansive poses include ‘superhero stance’, standing upright in a wide stance with arms in a ‘v-shape’ above the head or on the hips, or any pose that takes up a large amount of space. Closed/contractive stances include hunching, sitting with arms crossed, sitting with hands folded in one’s lap, or, more generally, positions using a minimal amount of space. The dependent variable ideally would be hormone level fluctuations, however in light of the limited resources and understanding, I have chosen the dependent variable to be a self-reported numerical value on a predetermined scale of 1-5 of confidence level experienced by the participant. All scales and means of measure will either be obtained from a reputable source or created by me.

Students will be separated by biological gender due to naturally higher occuring levels of testosterone in men. Students will not be told of the research conducted nor results of more credible studies conducted on power posing prior to observation in order to inhibit bias. The study will manipulate the independent variable based upon duration sustaining the pose and type of pose. Participants will be asked to report confidence levels prior to completing the pose as well as after. Additionally, students will be asked to perform a task of social interaction before posing as well as after. Limitations of this study include inability to measure testosterone and cortisol levels as well as potentially skewed or inaccurate data due to the nature of self-reported data. Confounding variables such as naturally lower confidence or deterrence to risk taking will be eliminated by taking into account initial confidence levels. Final confidence levels will be compared to each individual only and an average increase/decrease will be calculated accordingly.

Expected Outcomes:

Largely based on research of prospective studies as well as meta-analyses and systematic reviews, the expected outcome should support the hypothesis stated by Cuddy et al. that power posing does in fact boost hormone levels, which results in a psychological boost in confidence and risk tolerance. I predict that numerical values for confidence should increase by a significant increment (in this case, significance is quantified as a difference of 1.25 points or more). This should demonstrate a clear correlation, if not causation, between physiological nonverbal behavior and psychological behavior consistent with an increase in confidence.

Further confirmation of hypotheses not only makes them more parsimonious, but also gives them increasing validity and, if established as a known tactic for hormonal manipulation, implications of this study can help students, teachers, and anyone else who may face lack of confidence or nervousness before significant social interaction, which an estimated 75% of people worldwide do (Black, 2018). Power posing may enable applicants to perform better in job interviews, appear more confident when giving a speech, or even encourage more speculative behavior, for good or for bad.

References:

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