

Do Actions Really “Speak Louder” Than Words?

The Effect of Power Posing, Gestures, and Gender on Perceptions of Competence and Likability

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Abstract

Communication involves far more than the content we hear. In fact, some have suggested that nonverbal communication is as important -- if not more important -- as verbal communication (Mehrabian, 1968). Additionally, men and women have been noticed to gesture differently and hold different postures (Baird, 1976). The goal of this experiment was to investigate the impact of body posture, gestures, and gender on perceptions of competence and likability of a speaker. Participants viewed one of six videos about dark matter that varied the gender of a speaker and their strategy of nonverbal communication; participants then evaluated the speaker's credibility and likability. Results indicated that the female speaker was rated significantly more competent than the male speaker. Furthermore, gesturing was seen as significantly more likable than the control condition, while power posing was not. This experiment reveals that the use of gestures may be an effective strategy to receive more positive evaluations of a speech.

Keywords: communication, power, nonverbal

Introduction

Societies are built on communication. They use it as a vehicle for connections, decision-making, and change. Effective communicating is important in all occupations to make an applicant more likely to receive a job, build relationships with coworkers, manage employees, and present ideas. When presenting in front of groups of people, it is crucial to be able to communicate and persuade listeners. However, seventy four percent of Americans have glossophobia or speech anxiety, which makes it the most common fear in America (National Mental Health Institute, 2016). Communication involves far more than the content we hear. In fact, some have suggested that nonverbal communication is as important -- if not more important -- as verbal communication (Mehrabian, 1968). Interestingly, men and women have been noticed to gesture

differently and hold different postures (Baird, 1976). The goals of the present research were to investigate the impact of body posture, gestures, and gender on competence and likability of a speaker.

Perceived Competence

Gestures, and the way in which they are used, can increase perceived competence. In one study, speakers were deemed to be more competent and persuasive when they incorporated gestures (Peters & Hoetjes, 2017). Gestures have commonly been operationally defined as an arm movement of at least 3 inches (Jackob, Petersen, & Roessing, 2011). In an experiment conducted by Burgoon (1990), sixty participants gave speeches that were then judged on competence and persuasiveness by their classmates. Participants who used gestures during their speech were rated significantly more

credible and persuasive when compared to participants who did not use gestures during their speech (Burgoon, 1990). This was due to the finding that using rhythmic gestures when speaking positively influences perceived competence of the speaker (Gnisci & Pace, 2014). Furthermore, experiments revealed that when participants refrained from making gestures, they had more difficulty producing a speech. This evidence suggests that nonverbal communication facilitates verbal communication (Rauscher, Krauss, & Chen, 1996).

Perceived Likability

Along with perceived competence, gestures can increase perceived likability. Jakob et al. (2011) showed that speakers were deemed to be more likable when they used gestures during a speech compared to when they did not (Jakob, Petersen, & Roessing, 2011). This can be attributed to the finding that using nonverbal gestures increases the perceived warmth of the speaker (Gnisci & Pace, 2014). Another study, conducted by Bickmore, Pfeifer, and Yin (2008), demonstrated similar results; gesturing during directions of job assignments by directors toward employees significantly increased likability of the director (Bickmore et al., 2008).

Posture

Another important aspect of nonverbal communication is posture. Power posing is defined as having an expansive posture, and it has been shown to improve self-confidence and mood. Recently, a landmark power posing study conducted by Carney, Cuddy, and Yap (2010) has come under criticism. The study famously discovered that power posing increased testosterone levels and decreased cortisol levels, which is associated with less stress (Carney et al., 2010). Multiple researchers have been unsuccessful in recreating this study (Dominus, 2017). For example, a study conducted by Ranehill et al (2015) showed that power posing had no effect on hormone levels in a sample of 200 men and women while using a similar method to the Carney et al. (2010) study. Although researchers are skeptical of the

physiological effects of power posing, experimenters have further clarified the positive effects of power posing on self-esteem, mood, and attitude. In a study conducted by Nair et al (2014), participants were randomly assigned to either an upright condition or a slouched condition. Then, employing the Trier Social Stress test (Kirschbaum, Pirke, & Hellhammer, 1993), they were asked to imagine that they were interviewing for a dream job. To create stress, the experimenters asked the participants to give a five-minute speech detailing why they should be hired. After, participants were asked to fill out a survey on self-confidence and mood. The experimenters showed that adopting an upright position improved self-esteem and overall mood compared to when participants slouched (Nair et al., 2014). A later meta-analysis by Cuddy and her colleagues confirmed the positive psychological effects power posing has on mood, attitude, and feelings of self (Cuddy, Schultz, & Fosse, 2017).

External Perceptions

While many studies on power poses have looked at self-esteem, mood, and attitude, few have investigated external perceptions of speakers who use powerful poses during a speech. Cuddy, Wilmuth, and Carney (2012) analyzed the impact of power posing on performance in a supposed job interview. Sixty-six participants were randomly assigned to either a high-power group, in which they held an expansive posture for a minute, or to a low-power group, in which they held a contracted posture for a minute (Cuddy et al., 2012). Following holding that posture, participants acted in accordance with the Trier Social Stress test (Kirschbaum et al., 1993). Then, they responded to a 3-item survey measuring self-reported feelings of power. They determined that power posing prior to the speech significantly increased perceived speech quality, such as having a structured, straightforward, and intelligent speech, and perceived presentation quality, such as being enthusiastic, captivating, and confident, during the presentation. The experimenters attributed these results to participants feeling more confident in their abilities (Cuddy et al., 2012).

Hypotheses

Previous research has investigated the impact of power posing prior to a speech, but no studies have investigated the impact of power posing during a speech on perceptions of competence and likability. This investigation is particularly important because researchers do not know how people will perceive speakers when they hold an expansive or contracted stance. Some professional orators have recommended having a confident posture (Morgan, 2016), yet there is no empirical verification of this phenomenon. The present study will explore this area by statistically analyzing data from ratings of a video of a confederate in both an expansive and contracted pose. Also, given the recent criticism on power posing, it is important to isolate any possible effects holding an expansive posture might have on participants. In order to determine the impact of body posture and gendered gestures and posture on competence and likability of a speaker, the following hypotheses were tested: *Hypothesis 1*: Compared to when a speaker does not gesture, the speaker that uses gestures will be perceived to be (a) more competent and (b) more likable. *Hypothesis 2*: Compared to when a speaker is in a contracted posture, the speaker that holds an expansive posture will be perceived to be (a) more competent and (b) more likable.

Method

After being presented with a consent form, where participants were told they would be rating the persuasiveness of a speaker, participants watched a video. Participants were randomly assigned to view one of six filmed speeches about dark matter. They were then asked to complete a survey evaluating the speaker's credibility and likability.

Participants

Participants ($N=338$) were recruited through Mechanical Turk, which is an online website that collects participants, and given a link to a survey on Survey Monkey, a survey administration program. Participants were provided \$0.25 as an incentive and were limited to residents of the United States of

America in order to ensure that all participants were English speakers. 44 participants who failed to answer the manipulation check correctly were removed from the sample. The sample was about 2/3 male (65.6%), and participants' ages ranges 18 to 70 years old with a mean age of 37.2.

Experimental Stimuli

Six videos were created for this study with the assistance of a male and female actor from a high school drama department. In order to minimize the possibility of differences between the male and female actors, two siblings of relatively similar physical features were selected. Following filming the conditions, the videos were edited to be approximately one minute long, and the audio file from the control condition of each respective gender was used as the audio portion for all conditions of that gender.

In half of conditions, the participants viewed a video of a male speaker. In the other half, they viewed a video of a female speaker. In one-third of the conditions, participants viewed a speaker gesturing. In another third, they viewed a speaker in the power pose position. In the last third, they viewed a speaker in the control position; photos are presented in the appendix.

For the purposes of this experiment, a gesture was operationally defined as an arm movement of at least 3 inches based on Jakob et al. (2011). An expansive posture was operationally defined as an erect back, straight shoulders, and back, and a wide stance based on Nair et al. (2014). In the expansive conditions, the speakers were also asked to not gesture during their speech. The control condition was operationally defined as a narrow stance, where the speaker's feet were touching each other, there were no arm movements, and they had a stiff posture.

The speech that was used for the video was about theories of dark matter and was based on material from the National Aerodynamics and Space Administration (2017). The topic of dark matter was selected in order to minimize the risk that participants would be persuaded by personal opinions rather than the speech itself.

Dependent Measures

The McCroskey and Teven (1999) Credibility Scale consists of 18 7-point bipolar items. For the purposes of this experiment and with the permission of Dr. Lynda McCroskey, only the seven items, directly with credibility, were selected for this experiment. These items were excerpted from the competence subscale. The items that were removed were deemed to be inappropriate for the purposes of this experiment.

The Reysen (2005) Likability Scale consists of 11 7-point Likert-type items (1 = *Very Strongly Disagree* and 7 = *Very Strongly agree*). For the purposes of this experiment and with the permission of Dr. Stephen Reysen, two items were removed because they seemed awkward and inappropriate for this experimental setting.

Results

Competence

Contrary to the hypotheses, the results revealed that there was no significant difference between ratings for competence based on the type of nonverbal communication depicted, $F(2, 338) = 0.80, p = .45$. The group means can be seen in Figure 1.

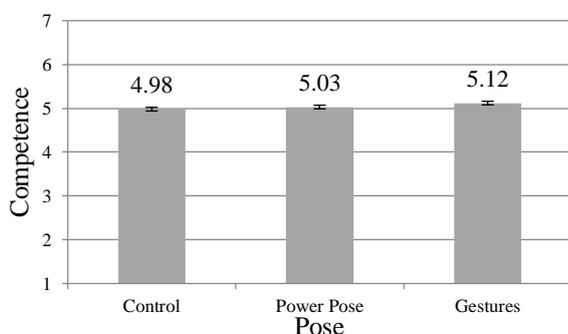


Figure 1. The Effect of Power Posing and Gestures on Competence

When investigating the impact of gender of the speaker on ratings of competence, the ANOVA revealed a significant difference between the male and female speakers, $F(1, 338) = 3.659, p = .05$. As seen in Figure 2, the female speaker was rated as more competent ($M = 5.14$) than the male speaker ($M = 4.92$). No significant interaction was found between speaker gender and type of nonverbal communication depicted, $F(2, 338) = 2.182, p = .114$.

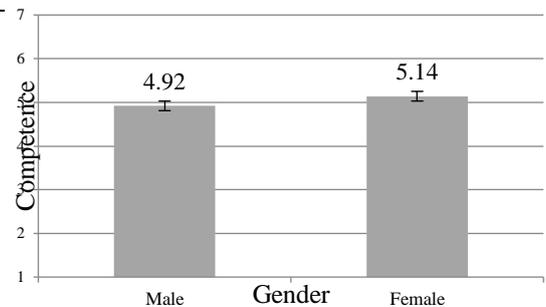


Figure 2. The Effect of Gender on Competence

Likability

Nonverbal communication had a significant effect on likability, $F(2, 338) = 3.674, p = .026$. While the power pose condition was rated between the other two conditions, ($M = 5.27$) these differences were not significant ($ps > .24$), which refuted part b of the second hypothesis.

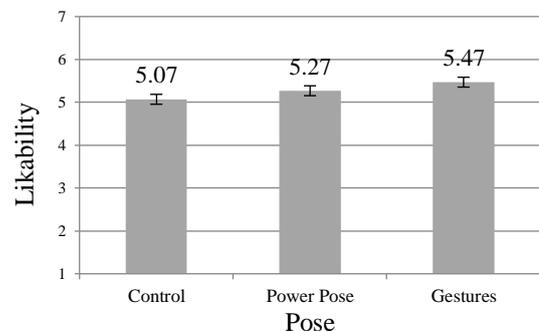


Figure 3. The Effect of Power Posing and Gestures on Likability

Additionally, there was no significant main effect on likability based on the gender of the speaker, $F(1, 338) = .141, p = .719$. The ANOVA also revealed that there was no significant interaction between ratings for likability based on gender of the speaker and type of nonverbal communication depicted, $F(2, 338) = 1.569, p = .210$.

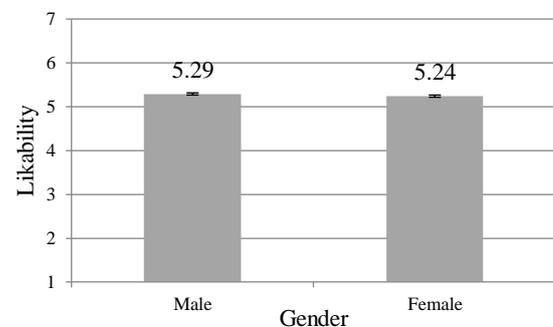


Figure 4. The Effect of Gender on Likability

Discussion

Nonverbal Communication Strategy

Neither gestures nor power poses significantly increased perceptions of competence, contrary to the hypotheses. It is possible that the context of this study may have caused these results. The experiment conducted by Cuddy et al. (2012) was done in the context of an in-person mock interview. In another study, conducted by Peters and Hoetjes (2017), the participants were shown a video of a politically charged message. Additionally, the experimenters informed the participants that the speaker was a local politician. In both of these experiments, the participant or speaker was making an argument. However, in the present study, the speaker gave a descriptive account of dark matter. These differences might have led to a greater variation in results for prior studies.

Speakers in the gesture condition were rated to be more likable than speakers in the control condition. When the speakers power posed, their ratings fell between the other two conditions. It was expected that gestures would improve likability because previous research has shown that gestures improve perceptions of confederates' likability. Previous studies on this topic were done in a political context (Jackob et al., 2011) and in the context of a director giving directions to employees (Bickmore et al., 2008), so the present study reveals that this phenomenon can be extended to descriptive presentations about astrophysics.

Power posing had a less dramatic effect on ratings of likability, perhaps because the speakers seemed stiffer than in the gesture condition. In both the power posing and control conditions, the speakers were instructed on how to stand and were encouraged to hold that position throughout the speech. In the gesture condition, on the other hand, the speakers were encouraged to use gestures. That incorporation of free movement might have resulted in the higher likability ratings. Research has shown that people in a contracted, stiff posture are seen as being less attractive than those in a more open posture (Vacharakulksemsuk et al., 2016). While likability may include more than attractiveness, the two concepts are related, and it is plausible that

likability would be positively affected by a more natural posture.

Gender

Although no differences based on speaker gender were anticipated, participants viewed the female speaker to be significantly more competent than the male speaker. This deviates from past literature (Olson, 1999) as well. Possibly, the female speaker may have been more natural in her movements, alluding to the idea that she looked more knowledgeable about the topic. Additionally, the "talking platypus" effect may have occurred. The "talking platypus" effect explains that when an individual attains a level of achievement not anticipated by their identity, bystanders amplify that success, rather than reduce it (Abramson, Goldberg, Greenberg, & Abramson, 1977).

Speaker gender did not affect ratings of likability. Given that the speakers are siblings of similar and who look relatively similar, it is possible that their likability, which may be more closely associated with physical characteristics than the way a speech is presented, may be similar at a base level.

The study's results provide practical implications for those who struggle with public speaking. Use of gestures may be an efficient strategy during a graded presentation, a job, or interview. The relatively subtle differences in types of nonverbal communication strategies demonstrate that even small differences in the way we communicate can have influence perceptions. Public speakers may wish to develop their nonverbal communication qualities to mirror the results of these two experiments.

This study investigates a method of nonverbal communication. However, it is important to remember that the experiment focused on a small set of nonverbal communication strategies. Thus, it would be valuable to look at a larger variety of strategies such as eye contact, facial expressions, and proximity. Researchers should also look at other types of dependent measures. In addition, it would be interesting to investigate how the racial identity of the speaker affects the results. Finally, it would be valuable to study adult presenters because

the two speakers in the present research were adolescents.

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