

A Prosodic Exploration of Academic Shame

Jeremiah Sullins, Lucy Grace Camp, Anna Little, Laura Waldron, and Ashlyn Wilson
jsullins@harding.edu, lcamp@harding.edu, alittle2@harding.edu, awaldron2@harding.edu,
awilson17@harding.edu
Harding University

Abstract: The current study explored the unique vocalization patterns exhibited under the influence of the self-conscious emotion shame. A “think-aloud” protocol was utilized in which participants vocalized their thoughts before and after an experience of “academic shame.” Results revealed statistically significant differences in prosodic units before and after a shame experience.

Theoretical framework

Research within the context of prosodic variation in oral communication with a focus on emotions has a rich history in recent decades (Kehrein, 2002; Truong, Westerhof, & Lamers, de Jong, & Sools, 2013). However, gaps exist in the literature related to shame (Turner & Husman, 2008). Although there is no universally accepted definition of shame, for the purposes of this manuscript, shame is defined as an acutely painful affective state related to perceived failure relative to one’s internal rules, ideals, goals, or standards (Turner, Husman, & Schallert, 2002). The current study focuses specifically on “academic” shame, which is shame that occurs in an educational context. The reason for focusing on academic shame is due to the detrimental impact that shame has been shown to have related to educational progress. More specifically, according to Tangney (2002) “...shame can seriously undermine children’s ability to learn in a challenging environment by lessening their chance of success in future endeavors. Feeling shame, children often simply stop trying.” (p. 187). To help fill the gap in the extant literature on this important emotion, the current manuscript sought to answer the following question: “Are there differences in speech data preceding a shame experience in comparison with speech data following a shame experience?”

Methods

Participants

Participants consisted of 60 undergraduate students at a private liberal arts institution located in the southern United States. They were given extra credit towards their general psychology class for their participation.

Materials

Aptitude test

The aptitude test was developed using example ACT verbal and quantitative problems that were obtained from the official ACT website (ACT, n.d.).

Experiential shame scale

According to Turner (2014), the Experiential Shame Scale (ESS) is “an opaque measure of physical, emotional, and social markers of shame experiences...developed to address the difficulties of assessing state shame.” The ESS consists of eleven questions in which the test taker indicates the number that best describes how they feel right now when comparing two opposite word states. For example, “Physically, I feel [Very Warm 1--2--3--4--5--6--7 Very Cool]”.

Procedure

Following the informed consent, participants were given a practice think-aloud passage to ensure the participant was aware of what would be expected of them during the experiment. The instructions read to the participants were as follows: “Please take the next minute to describe in as much detail your thoughts regarding the passage that you just read. It is very important that you go into as much detail as possible. We would like for you to say whatever thoughts you may have along with any emotions you may be experiencing and why. Please continue to say everything that goes through your mind for the full one minute. Even if you feel that you have said all you need to say, please continue thinking about the passage and saying anything that comes to mind. Let me know if you have any questions at this time. Thank you!”

Following the practice passage, all participants read a passage outlining the history of the university where the study was conducted. This passage served as the control condition. The instructions for the history passage were identical to the ones for the practice passage except for the time allotted to think-aloud. More specifically, in the practice passage, participants were given one minute, while in the history passage, they were given three minutes. All audio was recorded during this portion of the study.

After completion of the think-aloud protocol, participants were instructed to complete practice ACT problems. The participants did not know that the problems were practice ACT problems. They were told that the test was an aptitude assessment that was predictive of their overall intelligence. The test was given electronically via Forms in Google Drive. Participants were given 20 minutes to complete the test. After participants completed and submitted the test, they were given false feedback that stated they had scored a 40% whereas the average student up to that point had scored a 90%. Previous research has found this procedure to be an effective method for inducing a state of academic shame (Author, 2018; 2019).

Once the participants received their false feedback on the “aptitude test”, they were given the ESS to record the amount of “in-the-moment” shame they were experiencing. After completing the ESS, the participants were read instructions similar to the history passage in which they were told to take three minutes to say everything they were thinking about the test and their performance on the test. All audio was recorded during this portion of the study.

Following completion of the think-aloud protocol for the aptitude test, participants were debriefed and were allowed to leave. It warrants mentioning that during debriefing, an emphasis was placed on letting the participants know that the score they were given on the aptitude test was false and was in fact not related to their intelligence, aptitude, or ability. Additionally, they were given the contact information for the university counseling center if needed.

Results

All speech data were analyzed using Praat (Boersma & Weenink, n.d.). To explore any differences in verbal characteristics before and after a shame experience, a paired samples t-test was utilized. Results revealed a significant difference in Mean Frequency (Hz) before a shame experience ($M = 163.52$) and after a shame experience ($M = 103.25$), $t(59) = 7.83$, $p < .001$, $d = 1.01$. Additionally, a significant difference was discovered in Minimum (Hz) before a shame experience ($M = 24.30$) and after a shame experience ($M = 14.57$), $t(59) = 3.25$, $p = .002$, $d = .42$. It was also discovered that the maximum (Hz) was significantly higher before a shame experience ($M = 532.76$) compared to after a shame experience ($M = 403.08$), $t(59) = 6.17$, $p < .001$, $d = .80$. Participants also demonstrated significantly higher mean energy (dB) before a shame experience ($M = 53.29$) compared to after a shame experience ($M = 47.88$), $t(59) = 13.28$, $p < .001$, $d = 1.72$. Lastly, a significant difference was discovered in minimum (dB) before a shame experience ($M = 42.75$) and after a shame experience ($M = 41.83$), $t(59) = 2.73$, $p = .008$, $d = .35$.

Discussion

After a shame experience, participants: 1) spoke at a significantly lower pitch, 2) were speaking in a more monotone form, and 3) spoke significantly quieter than before experiencing “academic shame.” The results from the current study shed additional light on the complex self-conscious emotion of shame.

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