

# Effects of Praise on Young Female Adults

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## Introduction

For our study, we wanted to investigate the effects of praise from authority figures on young female adults (with low to average self-esteem) in a Virtual Reality (VR) classroom environment.

It is statistically shown that men tend to have higher self-esteem than women, and this is the case cross-culturally as illustrated by the study by Bleidorn et. al 2015, which examined the self-esteem of men and women across 48 nations.

Since women tend to have lower self-esteem, this study aimed to see how this can be addressed in terms of increasing it (even if momentarily) using authority figures. We want to see it, like in the case of children, modest praise is more beneficial at acknowledging and valuing the participants' performance, without demanding continued exceptional performance and in turn pressuring them.

Our main hypothesis is that young female adults with low-to-average self-esteem respond better to modest praise rather than inflated/ no praise.

## Research Question

How do inflated praise, modest praise, and no praise from authority figures impact young female adults with low or average self-esteem in a classroom setting?

Hypothesis: Young female adults with low-to-average self-esteem respond better to modest praise rather than inflated/ no praise.

## Methods/Participants

The VR experiment was conducted with female student participants between the ages of 20 and 24. Before the experiment, participants filled in a consent form and completed a questionnaire to determine their self-esteem level.

During the experiment, participants answered questions asked by the professor in a VR classroom environment and received either inflated praise, moderate praise, or no praise. Post-experiment, participants completed questionnaires to see how different praises influenced their experience perception and self-esteem.

## Procedures

The participant is introduced to the brief information of the VR experiment. They are asked to complete an online consent form, a questionnaire to figure out basic knowledge of VR, and a pre-experiment survey with questions targeted to figure out self-esteem levels.

As the experiment begins, the participant is led to put on the headset and hold the VR controllers. When the participant is ready, they will be asked to remain steady for the virtual experiment to take place.

The participant is now inside a virtual university-level classroom setting with a female professor who is introducing the topic of the lecture. The participant will be asked to answer the questions proposed by the professor.

After each question the participant answers, she will receive one of the following praises (inflated praise, moderate praise, no praise), and the praise will remain consistent for each participant.

After the screen fades out, the participant will be asked to fill out a post-experiment form to analyze the influence of different praises on their self-esteem levels.

## Results

We studied how perceived praise and the participant's perception of honesty, credibility, seriousness, and sincerity of the Professor's feedback were correlated. The variables are as follows:

### Praise and Honesty

- Correlation: -0.164 (Negative)
- P-value: 0.7567 (Not Significant)

### Praise and Seriousness

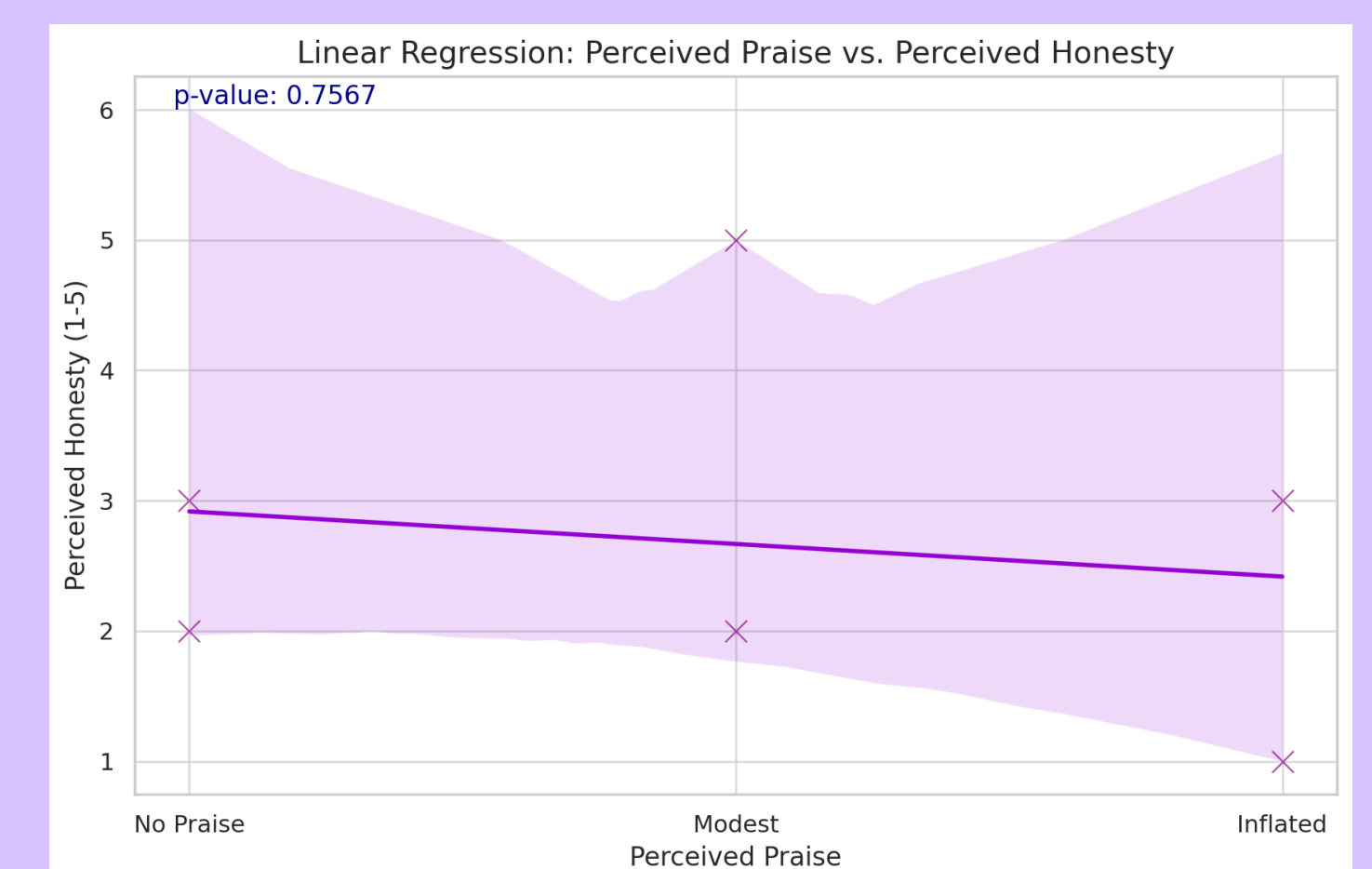
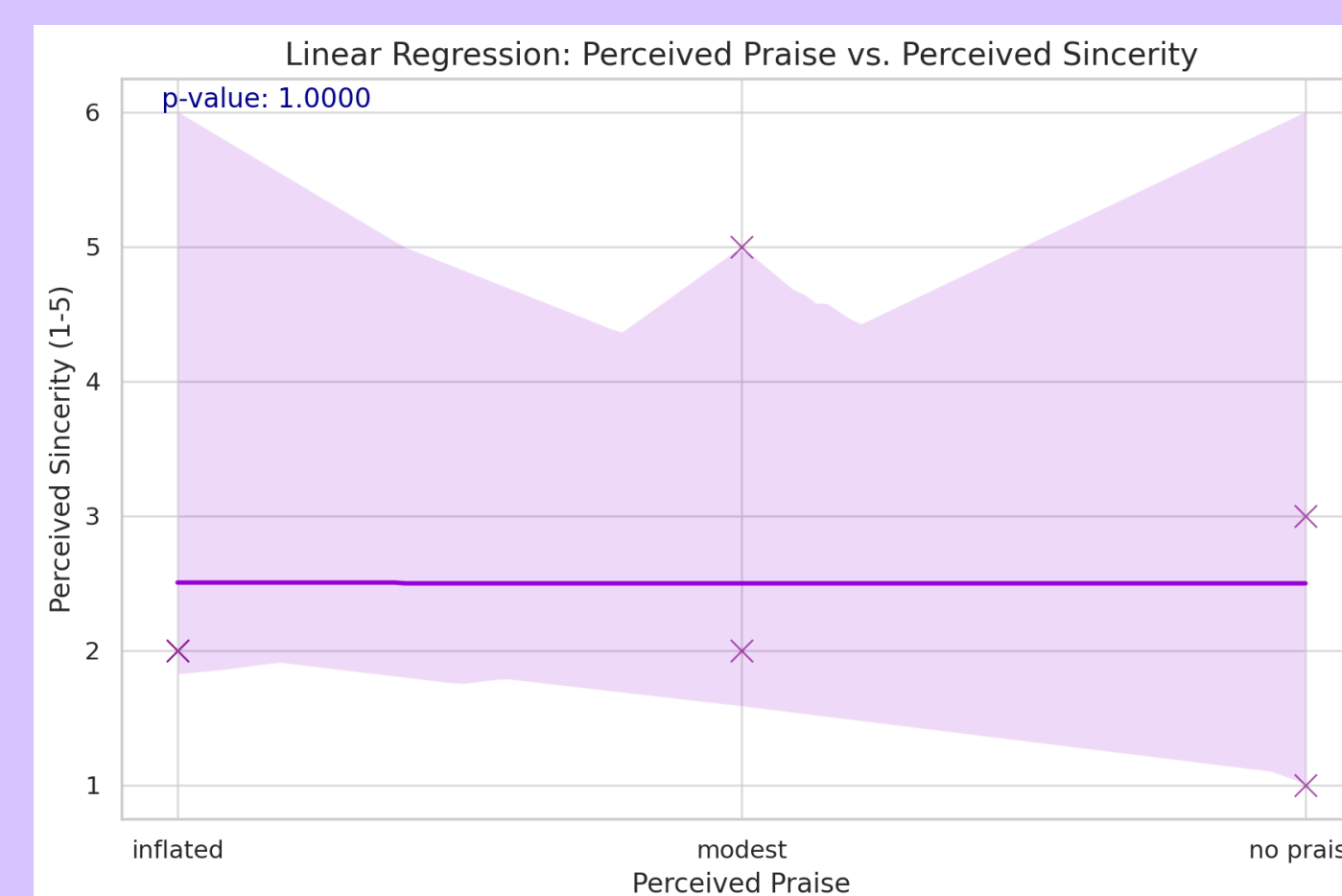
- Correlation: 0.383 (Positive)
- P-value: 0.4542 (Not Significant)

### Praise and Credibility

- Correlation: ~0 (Negligible)
- P-value: 1.0 (Not Significant)

### Praise and Sincerity

- Correlation: ~0 (Negligible)
- P-value: 1.0 (Not Significant)



Our study has shown a slight negative correlation between praise and honesty, implying that more inflated praise led to the participants' reduced perception of the received feedback's honesty. More inflated praise also led to increased seriousness.

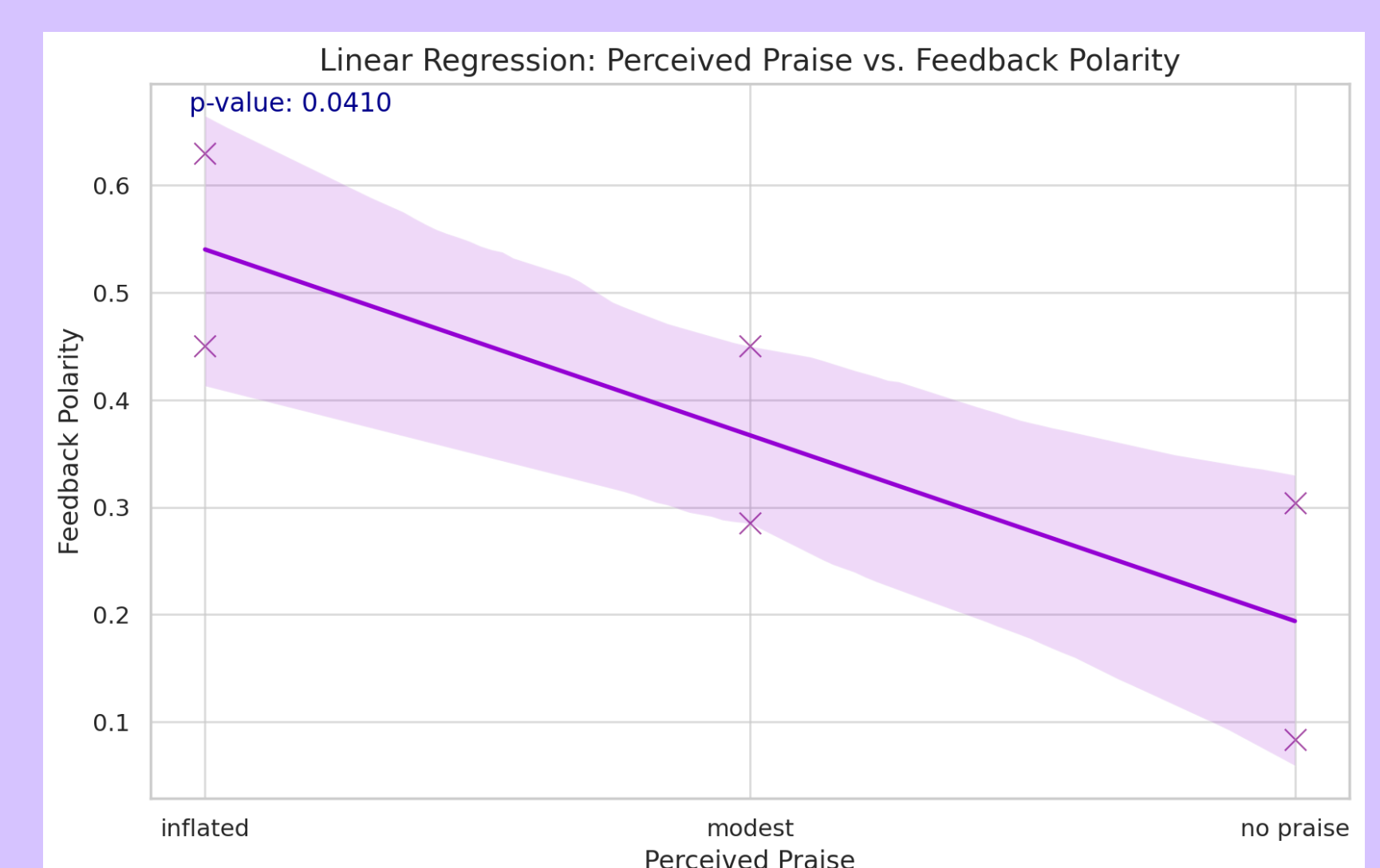
The study found no statistically significant correlation between the type of praise received and participants' self-perceptions of honesty, credibility, seriousness, or sincerity. The correlations, where present, were not robust enough to indicate any meaningful trends.

We also used the TextBlob Python library to run sentiment analysis to evaluate the participants' feedback polarity on the question to provide thoughts on the Professor's feedback to their responses in VR.

Sample Feedback: "She was fast to move on and felt like she didn't really agree but was fine with it. I felt that she listens to me attentively though."

- Sentiment: Moderately Positive (Polarity: 0.304, Subjectivity: 0.55)

There is a statistically significant positive correlation between received praise and feedback polarity, which implies that more inflated praise led to more positive thoughts on the feedback overall.



## Discussion

- **VR Presence and Realism** (weight distribution, race/ ethnicity of avatar, posture and robotic AI voice of professor, classroom design, social aspect of the classroom environment is not accurately replicated because questions are toward the participant only)

- **Female vs Male Professor** (would the participants' responses to praise differ if praised by a male professor?)

- **External environment** (i.e., noise from outside)

- **Academic motivation** (differs with different participants--extraneous variable)

- In this pilot study, we had a very small **sample size**, so the findings cannot be generalized

- **Inflated praise might potentially harm participants** with low self-esteem by setting unrealistic expectations, leading to disappointment

## Conclusion

There was no statistically significant correlation between the type of praise received and participants' self-perceptions of honesty, credibility, seriousness, or sincerity. However, we found a statistically significant positive correlation between received praise and feedback polarity, which implies that more inflated praise led to more positive thoughts on the feedback overall.

This VR study can be used in the future to research and potentially guide the overall treatment of young adult females in the work/ learning environment and the effects of carrot and stick dynamics concerning exploration. To improve the generalizability of findings, a larger, more diverse sample size of young participants would be recommended.

## References

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