

Source of Praise and Growth Mindset Development

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Introduction

- Growth mindset can be described as the belief that intelligence is not attributed to natural ability but is something that can be improved incrementally with effort and repeated practice. Past research has shown the positive effects of developing a growth mindset and demonstrated that effort praise can promote the development of growth mindset in learners (Kamins & Dweck, 1999).
- Research in this area has traditionally used authority figures as the source of praise, leaving a lack of evidence that other social influences, such as peers, could also be effective at influencing the development of growth mindset.
- Sheffler & Cheung (2019) found that participants rated the completion of a novel task as a more valuable experience after interacting with peers who expressed growth mindset beliefs.
- No past research has made a direct comparison of peers and authority figures as the source of praise. The present research explores this question to find support for peers as an effective source of influence in mindset development.

Hypotheses

- Receiving effort praise from a peer will lead to a greater increase of growth mindset beliefs than receiving effort praise from an authority figure.
- Receiving effort praise from a peer will lead to a greater increase in self-efficacy than receiving effort praise from an authority figure.

Methods

- Participants were 25 college students including: 16 males, 7 females, and 1 agender (1 participant did not report). Participants had a mean age of 25 years old.
- Growth mindset and self-efficacy beliefs were tested before and after the completion of a task from the Raven's Standard Progressive Matrices and receiving feedback.
- Participants were randomly assigned to receive effort praise feedback from a peer (n=12) or an authority figure (n=13).



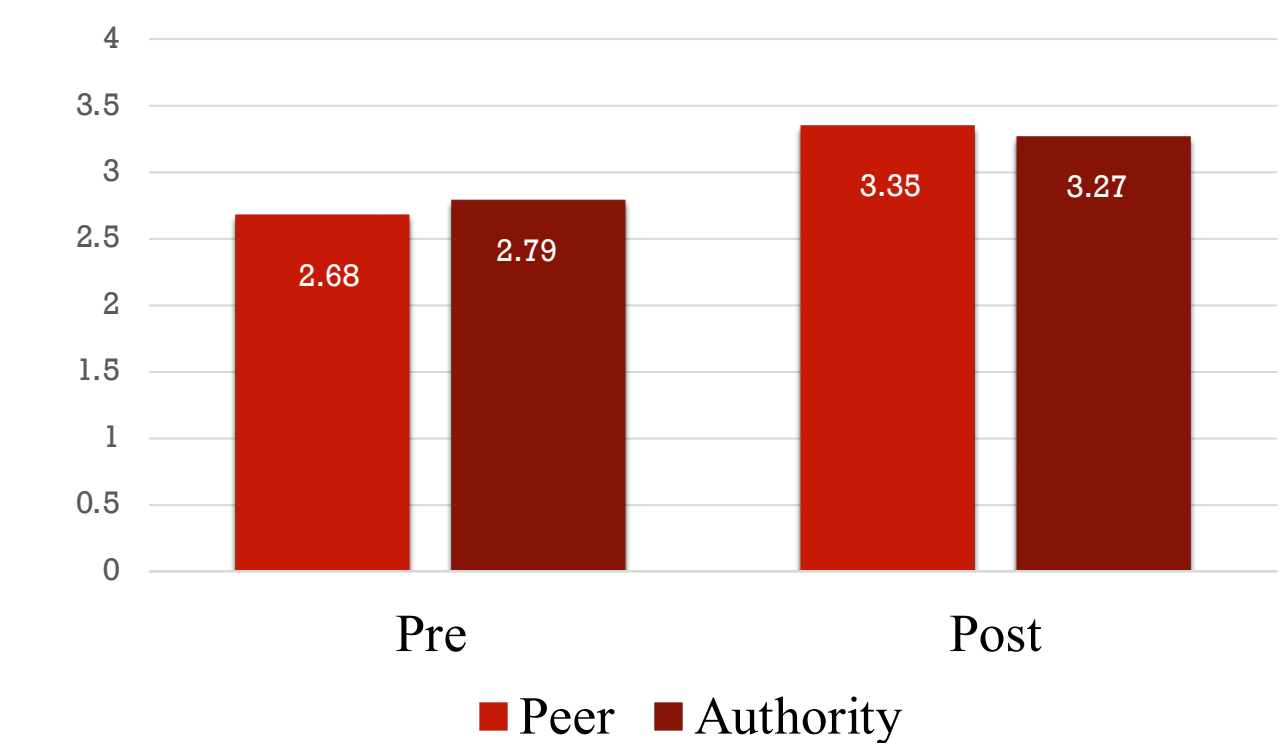
Procedure

- Baseline growth mindset and self-efficacy beliefs were measured using the Implicit Theory Scale and the Self-Efficacy Scale.
- Participants were given 5 minutes to complete as many items from the Raven's Standard Progressive Matrices as possible.
- "Please wait while your work is being assessed." Participants stayed on the waiting screen for 2 minutes to create the illusion that their work was being assessed in real time.
- "Wow, you did very well on these problems. You got 80% right. You must have worked hard at these problems" (Mueller & Dweck, 1998, p. 36). Participants were notified that either a peer or a professor assessed their work. Both conditions received the same feedback.
- Growth mindset and self-efficacy beliefs were measured again using the Implicit Theories of Intelligence Scale and the Self-Efficacy Scale.

Results

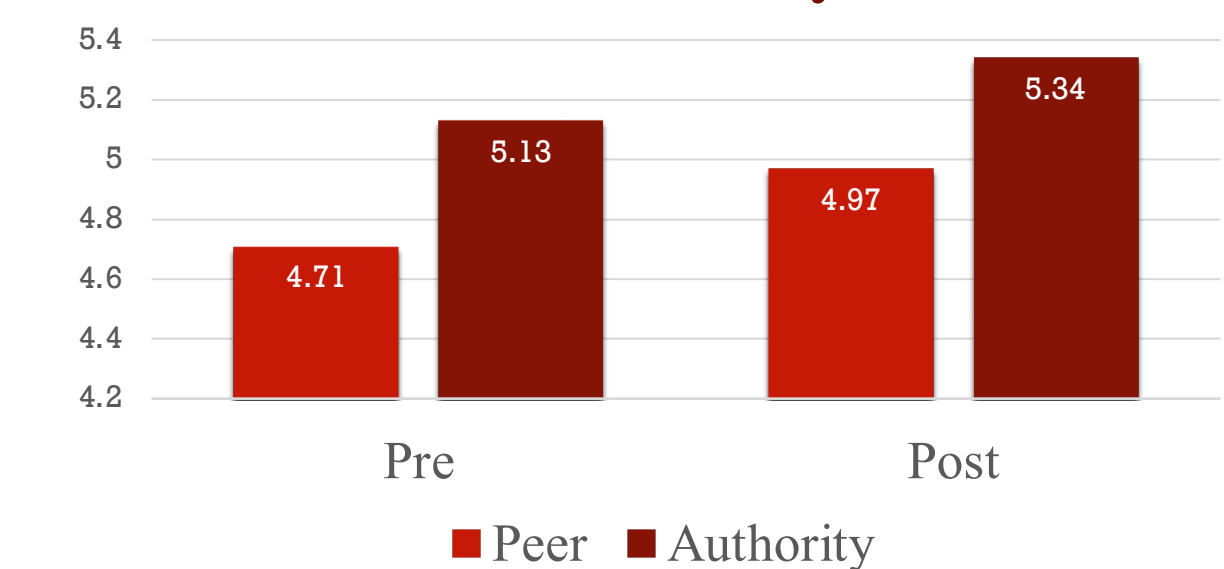
- I tested whether source of feedback had differential effects on the development of growth mindset beliefs and self-efficacy. A repeated measures analysis of variance was used to compare mean differences in pretest and posttest scores for growth mindset beliefs (implicit theory) and self-efficacy between conditions.
- Both conditions showed significant increases in pretest and posttest scores for growth mindset $F(1,23)=11.03, p=0.003$; and self-efficacy $F(1,23)=6.76, p=0.016$.
- However, mean differences in posttest scores were not significant between conditions. Therefore, there is not enough evidence to suggest that receiving effort praise from a peer is different than receiving effort praise from an authority figure.

Incremental Beliefs



The mean posttest score for the peer feedback condition was $M=3.35$ ($SD=0.88$), whereas the mean posttest score for the authority feedback condition was $M=3.27$ ($SD=0.33$), $F(1)=.332, p=0.57$.

Self-Efficacy



The mean posttest score for the peer feedback condition was $M=4.97$ ($SD=1.08$), whereas the mean posttest score for the authority feedback condition was $M=5.34$ ($SD=0.72$), $F(1)=0.10, p=0.75$.

Discussion

- Participants in both conditions showed significant increases in growth mindset beliefs and self-efficacy. However, these mean increases were not significantly different between groups.
- These results support previous findings that effort praise feedback contributes to growth mindset development (Kamins & Dweck, 1999).
- Although there is no evidence to suggest that feedback from peers is more effective than feedback from authority figures, the results demonstrate there is potential that feedback from peers can be just as effective as feedback from authority figures for college students' mindset.
- Further investigation into the efficacy of peers as a source of effort praise could be useful for educators who use peer mentoring as a resource for improving existing skills and teaching new skills to learners.

References

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 Sheffler, P. C., & Cheung, C. S. (2020). The role of peer mindsets in students' learning: An experimental study. *British Journal of Educational Psychology, 90*, 17-34. <https://doi.org/10.1111/bjep.12299>