Fake Peers Elicit Judgment Conformity, Confidence, and Trust

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Background

The spread of misinformation has created valid concern about how other's beliefs can influence our own. Online, we are constantly exposed to the opinions of other people, many of whom are unknown to us. Therefore, we sought to explore:

Can the reputation of a fake peer (source) influence people's...
1) Judgments (conformity)?
2) Judgment confidence?
3) Trust in the source?

Method

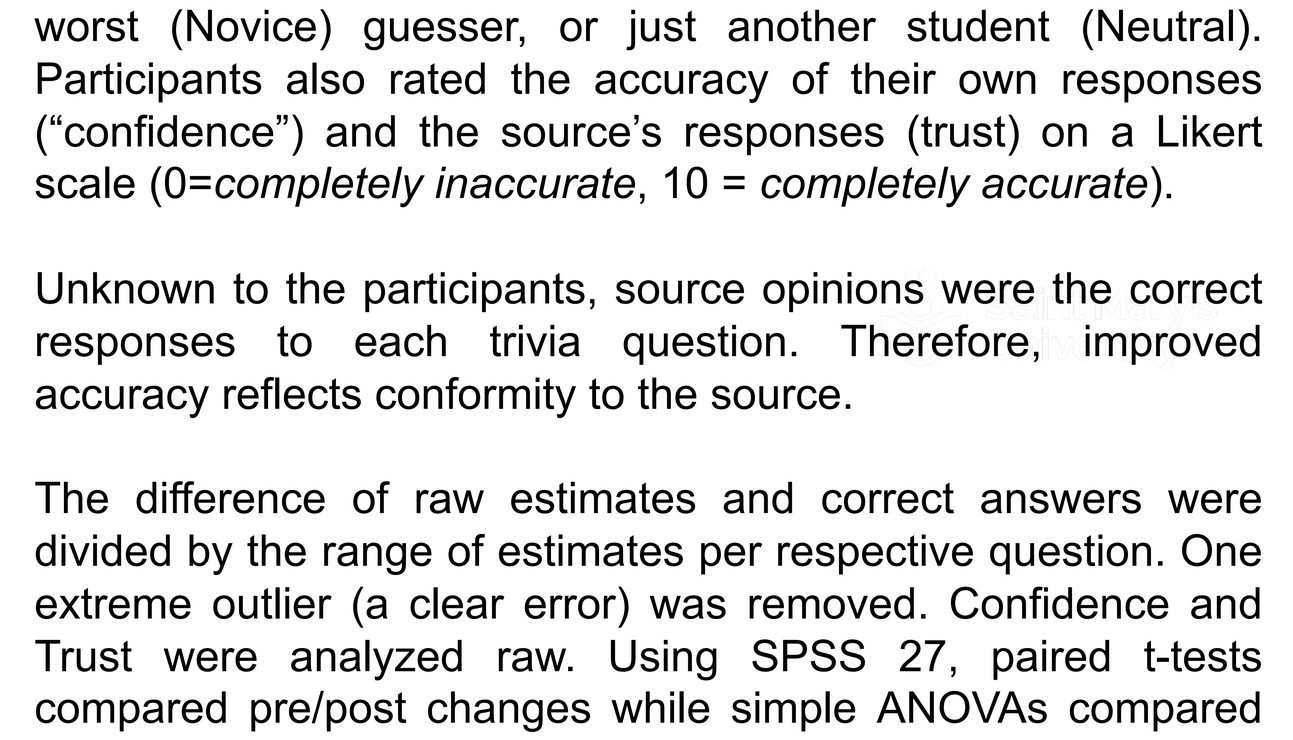
Participants were *N*=301 Saint Mary's University students (Mean age 20.9 ± 3.5 years, 78.3% female, 98.7% undergraduate) who completed the study via Qualtrics for course credit in psychology courses.

Participants were randomly assigned to 1 of 3 groups: Expert (n=88), Novice (n=104), or Neutral (n=109). They answered 10 numerical trivia questions before and after seeing the response of the "source". This source was either the best (Expert) or worst (Novice) guesser, or just another student (Neutral). Participants also rated the accuracy of their own responses ("confidence") and the source's responses (trust) on a Likert scale (0=*completely inaccurate*, 10 = *completely accurate*).

Unknown to the participants, source opinions were the correct responses to each trivia question. Therefore, improved accuracy reflects conformity to the source.

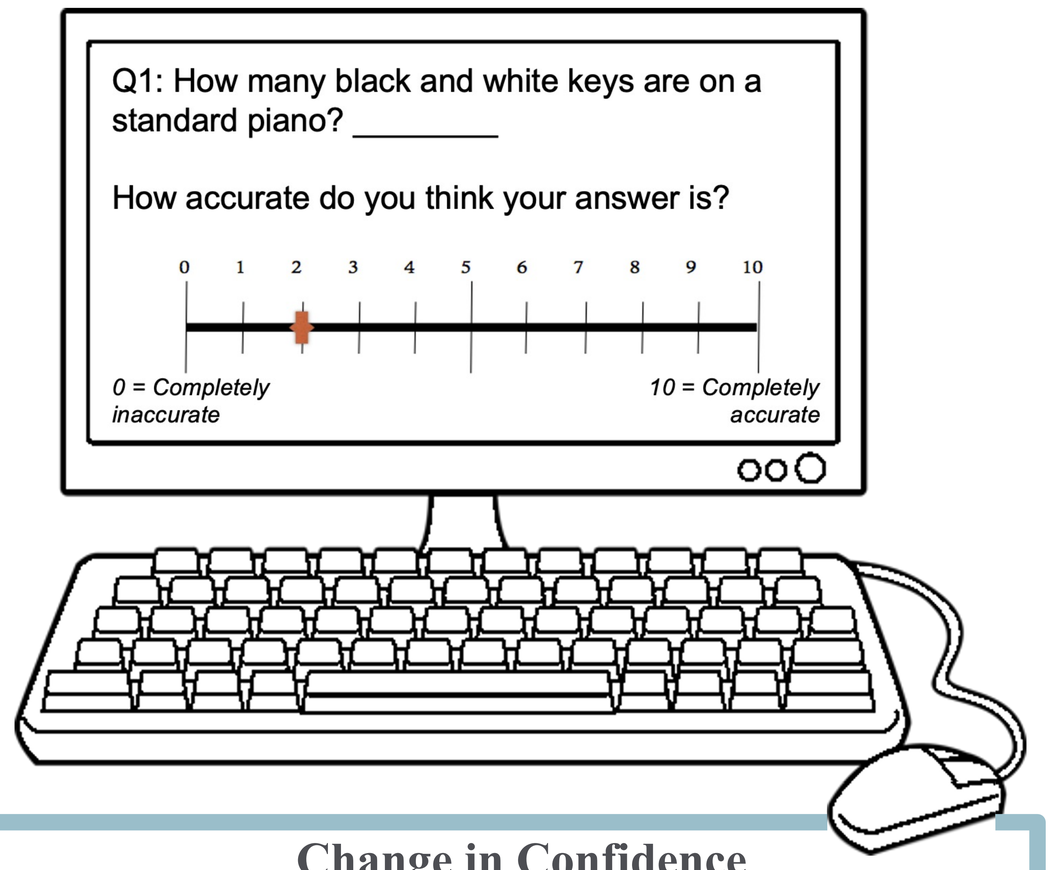
The difference of raw estimates and correct answers were divided by the range of estimates per respective question. One extreme outlier (a clear error) was removed. Confidence and Trust were analyzed raw. Using SPSS 27, paired t-tests compared pre/post changes while simple ANOVAs compared group differences. Post hoc tests for ANOVA utilize Tukey HSD.

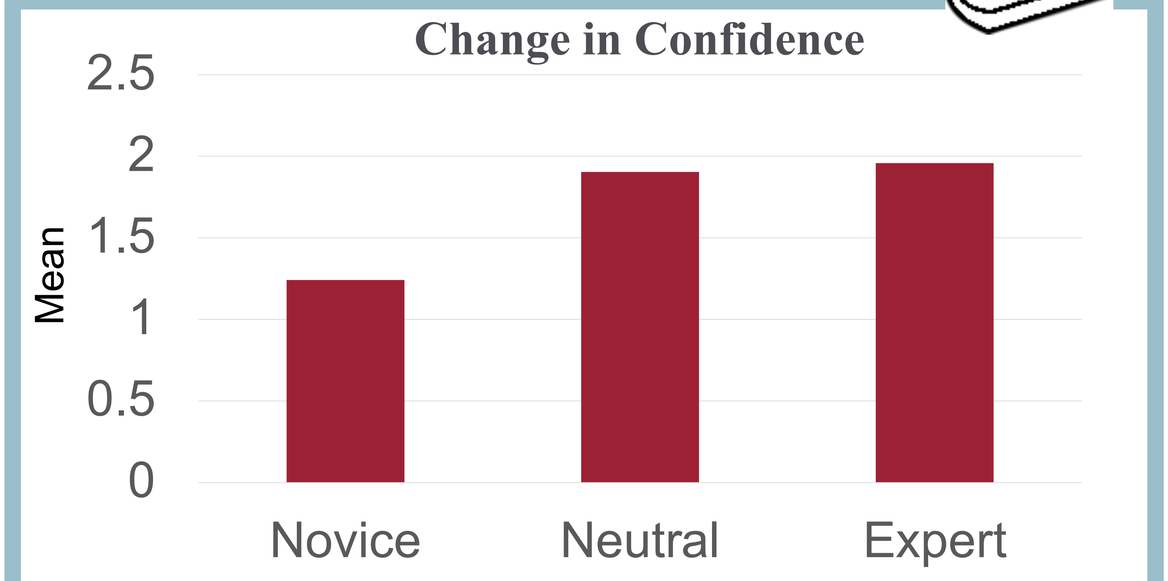
Results



Pre: *No effect of group on initial accuracy, F(2, 297) = 1.97, MSE = 0.06, p =.141.*

Post: *Significant effect of group on accuracy, F(2,298) = 4.43, MSE = 0.01, p =.013. Only the Expert and Neutral group differed significantly, p = .009. There were no differences between the Expert and Novice or Novice and Neutral groups (all p >.05).*

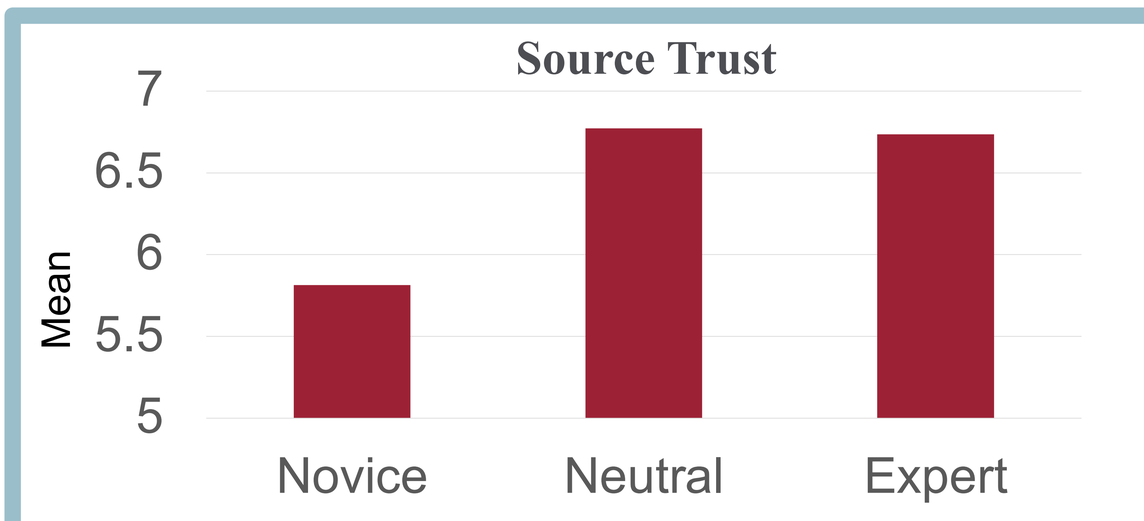




All groups boosted confidence after viewing the Novice (t(103)=7.81, p<.001), Neutral (t(109)=14.61, p<.001), and Expert (t(87)=13.27, p<.001) responses.

There was a significant effect of group on confidence change, F(2, 298)=7.75, MSE=16.09, p<.001.

Expert and Neutral groups improved confidence to a similar extent, p=.964. Novice group changed confidence significantly less than Expert (p=.002) and Neutral (p=.003) groups.



All groups trusted their sources more than chance (>5/10).
There was a significant effect of group on trust, F(2, 298)=11.69, MSE=30.16, p<.001.

Expert and Neutral groups similarly trusted their sources (p=.986), but the Novice group trusted significantly less (both p<.001).

Conclusion

People conformed more to experts. Yet, judgment confidence and source trust were nearly equivalent among those who viewed an expert's opinions versus an anonymous peer's opinions.

Implication

Anonymous peers – while they did not induce significant belief changes – may contribute to the stability of opinion via boosted confidence and trust. This has important implications to decision making online, such as the influence of anonymous individuals on social media.

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