Investigating Teachers' Implicit Attitudes Toward Social Groups

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A person's cognition can be understood as the combination of two processes happening simultaneously in their mind. Explicit measures capture cognitive responses which may be deliberative and controlled. Alternatively, implicit measures capture cognitive responses which may be automatic and difficult to control. Due to the nature of these measurement techniques, social desirability concerns may influence responding to explicit measures more than these concerns may influence responding to implicit measures.

Nonetheless, implicit attitudes may "leak out" into a person's behavior and interactions. For example, white individuals who report a more negative implicit bias toward African Americans tend to display more discomfort during interracial conversations than do white individuals who report less negative implicit bias.[1] In schools, as in society, implicit bias can have severe consequences. For example, in a sample of 41 elementary school teachers, teachers' implicit bias explained, in part, the students' ethnic achievement gap size.[2] The current research investigates mathematics teachers' implicit attitudes toward men and women who are Asian, black, Latinx, and white.

Study Design

Mathematics teachers in the study completed several survey measures. Germane to the current research, the teachers completed a measure of implicit affect, a version of the Affect Misattribution Procedure (AMP).[3] This measure presents a prime photo (a picture of a face) quickly yet visibly before replacing the prime photo with an ambiguous target photo (a picture of a Chinese symbol) and then quickly replacing the target photo with a visual noise mask (similar to TV static; for a schematic of a trial see Figure 1 below).

In this study, the prime photos were pictures of men and women representative of the following racial/ethnic groups: Asian, black, Latinx, and white. Participants were asked to ignore the prime photo and determine whether they thought the target photo was more or less pleasant than the average target

Key Findings

- Teachers completed a measure of implicit attitudes toward men and women representative of the following racial/ethnic groups: Asian, black, Latinx, and white. Overall, teachers reported relatively positive implicit attitudes toward all social groups.

- Teachers reported more implicit positivity toward women, as opposed to men.

- The findings did not vary in any significant pattern based on teachers' own gender and race/ethnicity.

Sample

This study leverages data from the National Study of Learning Mindsets (NSLM), the largest-ever randomized controlled trial of a growth mindset program in the U.S. in K-12 settings, in which a brief online growth mindset program was administered to 9th grade students during the 2015-2016 academic year. The NSLM features a nationally representative probability sample of regular U.S. public high schools. Additional information about the NSLM sample of schools and students can be accessed here.

Specifically, this study analyzed mathematics teachers' responses to several survey items. The sample included data from 250 teachers.

This snapshot was published at the close of the National Study of Learning Mindsets Early Career Fellowship and captures in-progress work.

photo. Each teacher was asked to complete 80 trials of this task. The researchers calculated the proportion of times participants thought the target photo was pleasant when preceded by each social group as a measure of pleasant implicit attitudes toward each group. In addition, teachers reported their demographic information (gender and race/ethnicity).
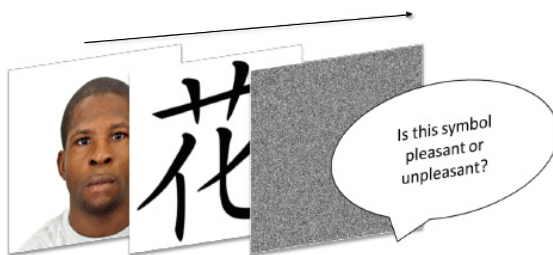

Figure 1. Schematic of a trial of the Affect Misattribution Procedure.

KEY FINDINGS

Overall, teachers reported relatively positive implicit attitudes toward all social groups.

Because teachers were not required to complete this (or any) measure, the sample of teachers used in this analysis is not reflective of all teachers surveyed for the experiment. The total number of teachers that completed the main measure of interest was approximately 250. Of these teachers, approximately 90 were men and 160 were women. Approximately 210 were white, 10 were black, and 30 were another race/ethnicity. The project's findings generally do not replicate previous

findings, which have shown that, in general, majority white samples display implicit bias against non-white individuals.

Teachers reported more implicit positivity toward women, as opposed to men.

When the researchers drilled down to explore these patterns more deeply, they found that the results were qualified by an interaction between race by gender. That is, the difference in implicit positivity toward women and men was largest for prime photos of Asian and white people. For prime photos of black and Latinx people, there was little difference between implicit positivity toward men and women.

The findings did not vary in any significant pattern based on teachers' own gender and race/ethnicity.

Again, the current findings are dissimilar to previous findings, which could be the attributed to several different factors. First, it may be that teachers are less implicitly prejudiced than are other populations of Americans. Second, it may be that the instructions leading up to the measure heightened social desirability concerns, causing teachers to filter their reactions in order to not betray biases against social groups. Although the AMP is designed to avoid triggering social desirability concerns, recent research suggests that it may not be immune to these concerns.[4]

INSIGHTS AND FUTURE DIRECTIONS

The researchers are currently thinking about implicit attitude heterogeneity among teachers. In particular, they are interested in whether school factors, such as diversity in the school, and local factors, such as diversity in the county, may shape teachers' implicit attitudes. If so, this would suggest that the context in which the teacher is situated may, at least in part, shape the teacher's implicit attitudes. Further, they are interested in investigating whether implicit positivity toward women relative to men may lead to differing magnitude of students' trust and respect for their teacher based on students' gender. If so, this would suggest that implicit positivity toward women relative to men may be associated with how students view their teacher.

References

[1] Dovidio, Kawakami, & Gaertner, 2002.
[2] van den Bergh, et al., 2010.
[3] Payne et al., 2005.
[4] Cummins, Hussey, & Hughes, 2019.