

Protecting a few students from negative stereotypes benefits entire classroom

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Interventions targeted at individual students can improve the classroom environment and trigger a second wave of benefits for all classmates, new research shows. The findings, published in *Psychological Science*, a journal of the Association for Psychological Science, indicate that sharing a classroom with greater numbers of students who participate in a brief intervention can boost all students' grades over and above the initial benefits of the intervention.

"Our results suggest that the whole effect of an [intervention](#) is more than the sum of its individual effects," explains psychological scientist Joseph

Powers of Stanford University, lead author on the study. "As a field, we've often focused on understanding and changing individual psychological processes, but these findings show that changing individual psychology can trigger important second-order effects with measurable benefits for everyone in the environment."

To examine the potential emergent effects of educational interventions, Powers and colleagues analyzed data from two previous intervention studies conducted with 7th graders. Both studies involved a values affirmation exercise aimed at diminishing the threat of negative stereotypes related to African American [students](#)' academic abilities.

The first study took place in 45 classrooms at the beginning of the school year. Participating students received a writing prompt from their teachers, who were not aware of the research hypothesis. The prompt instructed some students to write about their most important values, such as friends or artistic ability; these students were in the [intervention group](#). Other students, assigned to the control group, received a prompt instructing them to write about their least important values. After about 15 minutes of writing, the students placed their responses in envelopes, which were collected by their teachers.

On average, about half of the students in each classroom participated in the study. Importantly, the students believed that the exercise was a typical writing assignment for class.

Previous research by members of this team found that writing about their most important values at the beginning of the year helped insulate students from [negative stereotypes](#) about their racial groups and thereby boosted the grades of African American students but not those of White students, as the researchers had predicted.

The new analyses by Powers and colleagues showed that individual

student grades also improved just from being in classrooms with a greater proportion of African Americans who received the intervention. The results showed that the intervention effects didn't just "spill over" to untreated students - rather, the classroom environment improved, and the improved environment benefited everyone in it. For example, White students who saw no direct effects from the intervention still benefitted from the improved classroom environment, and African American students who directly benefited from the initial intervention also received a second wave of benefits from the improved classroom environment.

Intriguingly, the boost appeared to be especially strong for low-performing students of all races. The data indicate that adding just two African American students to the intervention group in a typical classroom improved the [classroom environment](#) enough that low-performing students' grades increased, on average, by a third of a letter grade from a C to a C+.

The second study, conducted with a separate group of 7th graders in 15 different classrooms, confirmed these findings. And further analyses revealed that the classroom improvement effect was not influenced by various individual- and classroom-level factors, including student race, student intervention condition, and teacher team, in either study.

The researchers were surprised by the strength of these emergent effects, which were as large as or even larger than the direct effects that triggered them: "It really makes you wonder how often we underestimate the full impact of social interventions," says Powers.

Powers and colleagues plan on exploring these effects further to investigate the mechanisms that drive these emergent effects and the conditions that may limit them. They posit that the intervention may lead to strong indirect effects by strengthening classroom norms of

cooperation, order, and growth in ways that benefit all students in the class.

More information: *Psychological Science*,
[pss.sagepub.com/content/early/ ... 97615614591.abstract](https://pss.sagepub.com/content/early/.../97615614591.abstract)

Provided by Association for Psychological Science

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