Teachers' explicit expectations and implicit prejudiced attitudes to educational achievement: Relations with student achievement and the ethnic achievement gap

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ABSTRACT

In this paper, we consider whether teachers' explicit and implicit prejudiced attitudes underlie the ethnic achievement gap. To date, most research on teacher expectation effects has relied on explicit expectation measures that are prone to social desirability biases. In contrast, we examine the effects of teachers' (a) explicit ethnicity-based expectations for academic achievement and (b) implicit prejudiced attitudes about academic achievement on students' actual academic success over time. A total of 38 teachers completed both a traditional teacher expectation measure and a modified Implicit Association Task designed to assess ethnic stereotypes associated with academic achievement and failure. A multi-level analytic framework showed that students in classrooms of teachers with high expectations performed better in reading at the end of the year and that these effects were found across all ethnic groups. In contrast, whereas students' mathematics achievement scores were largely unrelated to teachers' explicit expectations, teachers' implicit prejudiced attitudes predicted student performance. Specifically, students benefited most academically when their teachers' implicit biases favored the ethnic group to which the student belonged. Findings are discussed in relation to differences in the salience of teachers' expectations and implicit prejudiced attitude in the classroom, and the ethnic achievement gap.

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1. Introduction

1.1. Ethnic achievement gap

In many countries, academic achievement levels of ethnic minority groups are lower than those of the ethnic majority (Fryer & Levitt, 2004; Glock & Karbach, 2015; Harker, 2006; Jencks & Phillips, 2011; Sammons, 1995). Not surprisingly, this performance gap is of great concern to researchers, educators, and policy makers (e.g., Bishop, Berryman, Cavanagh, & Teddy, 2009; Delpit, 1995; Strand, 2014; Weinstein, Gregory, & Strambler, 2004), leading some to posit that socioeconomic status (SES) is (partly) responsible for this ethnic achievement gap (e.g., Strand, 2014). This is because SES affects the material resources available to support a child in their education, and is related to numerous health and developmental risks factors. SES also indirectly affects academic achievement through things like parental beliefs and expectations (Strand, 2014).

However, a recent longitudinal study ($N = 14,500$) in the United Kingdom found that, while SES differences (and a range of other contextual factors such as parental education) could partially or fully account for some achievement gaps between majority and minority groups, it could not account for all such differences (Strand, 2013). Strand suggested that the remaining unexplained ethnicity-based differences in academic achievement may be due to teachers' academic expectations which potentially bias their judgments of student achievement.

1.2. What are teachers' expectations and what difference do they make?

Teacher achievement expectations (commonly referred to as teachers' expectations) are defined as beliefs teachers hold about their students' academic capabilities and subsequent levels of

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achievement. They are thought to be largely influenced by factors such as students' prior achievement, but also by ethnicity, SES, gender, and student diagnostic labeling. Other factors such as student behavior, the child's name, personality and friendliness, and the child's older siblings' success have been found to have lesser effects on teacher expectations (Rubie-Davies, 2015; Strand, 2013).

Differences in teacher expectations are important not only because they can influence teachers' subjective judgments of their students' academic abilities and grades, but also because when teachers hold different expectations for particular groups of students, they may engage, support, and teach their students differently. Indeed, Brophy and Good (1970) identified 17 ways that teachers responded differently to students for whom they had low (compared to high) expectations, including providing low expectation students with less time to respond to questions, less eye contact, and reduced warmth and friendliness during interpersonal interactions. Moreover, teachers' expectations can affect the types of learning tasks they set. Specifically, teachers set high-level learning tasks when they have high expectations, but low-level tasks when they have low expectations (Rubie-Davies, 2015). Because the amount that students learn depends on the learning opportunities provided by their teacher, differential expectations potentially exacerbate pre-existing achievement gaps (Rubie-Davies, 2015).

1.3. Student sensitivity to teacher expectations

Research shows that, from a young age, students are able to identify teachers who have high and low expectations from observing their teacher's behavior. Babad and Taylor (1992) conducted a study where students (Grades 4—10) were shown very brief samples (10-s audio and video clips in a language they did not understand) of teachers talking to a student. Despite the short length of the clip, students were able to detect whether the teacher was talking to a high or a low expectation student. These differences were argued to be picked up from the teachers' nonverbal behaviors because they were detected in the absence of language and verbal cues.

1.4. Teacher expectations and academic achievement

Although few question the existence of differential teacher expectations, there is debate about the size of teacher expectation effects on students' achievement. A recent meta-analysis of 674 experimental and naturalistic studies found that the average expectation effect size across all students was a modest $d = .43$ (Hattie, 2009). However, based on 11 naturalistic studies, Jussim, Robustelli, and Cain (2009) argue that teacher expectations predicted student achievement *because* their expectations were accurate. Nevertheless, even critics of teacher expectation research concede that, although the effects of teacher expectations on student achievement may be small overall, they can still be powerful in certain circumstances (Jussim & Harber, 2005; Van den Bergh, Denessen, Hornstra, Voeten, & Holland, 2010). In particular, critics note that students from low socioeconomic groups and students from ethnic minorities may be particularly susceptible to teacher expectation effects through processes like stereotype threat (Jussim, Eccles, & Madon, 1996).

1.5. Source of teachers' expectations: stereotypes and prejudiced attitudes

One reason why some teachers form different expectations for different ethnic groups may be because of stereotypes and implicit prejudiced attitudes they hold about students from particular ethnic groups (Jussim et al., 1996). A *stereotype* is defined as a belief that members of a particular group (e.g., men, women, minorities, the poor, etc.) have certain attributes or traits (Greenwald & Babaji, 1995; Wilson, Lindsey, & Schooler, 2000). Stereotypes, which are cognitive in nature, are usually associated with an affective component: prejudice. *Prejudice* is defined as the (often negative) feelings and attitudes one holds towards a particular group (Singh, 2015; Stangor & O'Brien, 2010). In the current study, we refer to these as prejudiced attitudes. A third related term is *discrimination*. This is the behavioral component of an intergroup attitude and refers to the differential treatment of people based on the group to which they belong (Vescio & Bloodhart, 2010).

Stereotypes and prejudiced attitudes can be positive or negative and can exist on an explicit and implicit level. Theoretically, explicit and implicit stereotypes and prejudiced attitudes are distinct constructs (Gawronski, Strack, & Bodenhausen, 2009). Whereas, a person is consciously aware of and has control over explicit stereotypes and prejudiced attitudes (Gawronski & Bodenausen, 2006), implicit stereotypes and prejudiced attitudes emerge via automatic processing and are typically unconscious.

1.5.1. Development and activation of stereotypes and prejudiced attitudes

Both explicit and implicit stereotypes and prejudiced attitudes develop from repeated exposure to pairings of a social group or object with a particular characteristic. One such pairing found in industrial countries is the ethnic achievement gap between majority and minority students. Most teachers are aware of this association, as attempts to address the achievement gap lie at the heart of many educational policies such as the 'No Child Left Behind' (2002) policy in the United States which targets poor and minority students or the Ka Hikitia: Accelerating Success 2013—2017 policy in New Zealand which targets Indigenous Māori under-achievement (Ministry of Education, 2012). Teachers may also be aware of the ethnic achievement gap from their own teaching experience by either directly observing it among their own students, or indirectly by talking to others.

Importantly, knowledge of a particular stereotype does not necessarily mean endorsement of it. Specifically, Devine (1989) showed that people who were high and low on an explicit measure of racial bias were equally knowledgeable about the *content* of racial stereotypes. What differentiated these two groups, however, was whether or not they suppressed the automatic activation of these beliefs in a subsequent task. Whereas those low on bias controlled the use of previously activated stereotypes, those high on bias responded to the ambiguous behavior of a target in a stereotypical manner. Critically, this means that factors that interrupt teachers' ability to suppress automatically activated stereotypes (e.g., a busy classroom) could unconsciously allow these biases to leak out affecting a teachers' behavior.

This finding highlights a key difference between explicit and implicit stereotypes and prejudiced attitudes in that explicit stereotypes and attitudes (compared to implicit ones) are easier to control. According to Chaiken and Trope's (1999) dual process MODE model, the execution of control over a prejudiced attitude depends on the *m*otivation and *o*pportunity to control or *de*termine the attitude-to-behavior process. For example, when a teacher fills in a teacher expectation questionnaire stating his or her explicit expectations for each student's achievement, there is time to reflect and provide a socially desirable response. Although the teacher expectation task does not make direct reference to any particular stereotypes, it is possible that some teachers will be explicitly aware of stereotypes surrounding the achievement of some groups in their class. Given that the teacher expectation task is not timed, teachers also have plenty of opportunity to reflect and respond in a