

## Research Report

## STEREOTYPE SUSCEPTIBILITY: Identity Salience and Shifts in Quantitative Performance

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**Abstract**—Recent studies have documented that performance in a domain is hindered when individuals feel that a sociocultural group to which they belong is negatively stereotyped in that domain. We report that implicit activation of a social identity can facilitate as well as impede performance on a quantitative task. When a particular social identity was made salient at an implicit level, performance was altered in the direction predicted by the stereotype associated with the identity. Common cultural stereotypes hold that Asians have superior quantitative skills compared with other ethnic groups and that women have inferior quantitative skills compared with men. We found that Asian-American women performed better on a mathematics test when their ethnic identity was activated, but worse when their gender identity was activated, compared with a control group who had neither identity activated. Cross-cultural investigation indicated that it was the stereotype, and not the identity per se, that influenced performance.

Recent studies have found that the implicit activation of a sociocultural stereotype can influence the performance of the stereotyped individual. Steele and Aronson (1995) found that African-American students, who are stereotyped to be poor students, underperformed relative to white students when they were told that a test was diagnostic of their abilities. In addition, Levy (1996) found that elderly people performed worse on a memory task if they had previously been primed with a negative stereotype of the elderly than if they had been primed with a positive stereotype of the elderly.

In this article, we expand the work on the powerful effects of automatic and unconscious activation (see, e.g., Banaji & Greenwald, 1994; Banaji, Hardin, & Rothman, 1993; Bargh, Chen, & Burrows, 1996) and self-application of stereotypes by examining whether the implicit activation of particular identities can facilitate as well as debilitate academic performance. We focus on two issues that social psychologists have largely overlooked but that merit investigation—the effects of the activation of various identities an individual may have and the positive effects of some stereotypes on performance.

Past research on self-stereotyping has focused almost exclusively on only one dimension of participants' identity. For example, both Levy's (1996) and Steele and Aronson's (1995) studies classified participants along only one dimension of social identity, age and race, respectively. Yet people carry with them many rich dimensions of social identity (Hewstone, 1996), and different social situations and goals trigger different identities (Richeson & Ambady, 1998). For example, a white, male, Christian accountant may be identified as a male, as white, as a Christian, or as an accountant. Because different social identities are associated with different stereotypes, individuals

may be susceptible to different, and in some cases even conflicting, stereotypes.

A second neglected issue in the research on self-stereotyping is the effect of positive stereotypes. Focusing only on the negative effects of stereotypes associated with particular social categories means that critical dynamics of how stereotypes affect individuals in the real world are ignored.

In the studies we report here, we considered both positive and negative stereotypes associated with different identities that can coexist within an individual. Can implicit activation of different dimensions of identity lead individuals to access and behave in accordance with different stereotypes that might help or hinder their academic performance? We examined whether subtly activating different self-stereotypes would affect the quantitative performance of Asian-American women. A common cultural stereotype of women, supported by data on test performance, is that they have inferior quantitative skills compared with men (Benbow, 1988; Hedges & Nowell, 1995). A common stereotype about Asians, also supported by data on test performance, is that they have superior quantitative skills compared with other ethnic groups (Steen, 1987). These stereotypes suggest that the performance of Asian-American women in a quantitative domain is susceptible to two very different stereotypes.

### STUDY 1

#### Overview

In Study 1, we asked undergraduate Asian-American women to take a quantitative test. We hypothesized that their performance would be depressed when their female identity was made salient and enhanced when their Asian identity was made salient, compared with a control group of Asian-American women for whom no particular identity was made salient.<sup>1</sup> Identity salience was manipulated by having participants complete different versions of a questionnaire about residential life at their university. Participants randomly assigned to the *female-identity-salient* condition had to indicate their sex and answer questions related to their gender identity. Participants in the *Asian-identity-salient* condition were asked to indicate their ethnicity and to answer questions related to their ethnic identity. In the *no-identity-salient* control condition, participants were not asked to indicate their gender or their ethnicity, but were asked to answer questions unrelated to either identity. The questionnaires were constructed to make salient the identity of interest (ethnic or gender) implicitly,

1. One can conceive of a fourth condition in which both gender and ethnicity are made salient in order to see if one identity would predominate. This is a provocative question, but beyond the scope of the present study, in which we tested whether we could alter performance by making one identity more salient than another.

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