

# Overcast Minds

## Caste Consciousness and Academic Performance

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Children from historically disadvantaged castes face systemic hurdles in education in India—ill-equipped schools, poorly trained teachers, discrimination—leading to high failure and dropout rates. Children from disadvantaged castes also face subtler psychological impediments. One such impediment is consciousness of negative stereotypes. Via an experiment, this study illustrates how caste consciousness could affect academic performance, and finds that children from disadvantaged castes perform poorly in tests when made aware of their caste and reservation status than otherwise. The study underlines the need for reform in how India implements its reservation policy to narrow some of the inter-caste differences in educational attainment.

Inherited caste identity is known to block the progress of many Indians from historically disadvantaged castes (Thorat and Newman 2009). In the sphere of education—which is critically linked to other life outcomes, such as employment, income, health, and standard of living, disadvantaged castes continue to face hurdles in access to schooling and skill attainment despite remedial affirmative action programmes by the national and state governments.<sup>1</sup> Case studies document that schools serving disadvantaged caste communities are poorly staffed, with teachers having inadequate subject knowledge and training (Subramanian 2017). Studies also detail the discrimination children from underprivileged caste groups experience at school, including being segregated during school lunches, denied access to drinking water, subjected to casteist slurs, and asked to do menial tasks seldom asked of pupils from traditionally privileged castes (Balagopalan and Subrahmanian 2003; Nambissan 2009; Subramanian 2017). Children from disadvantaged castes are also known to suffer prejudice within classrooms—with teachers silencing them, and seating them in the back while reserving front seats for students from traditionally privileged castes (Nambissan 2009).

Data from across India reveals the systematic nature of the hurdles that children from disadvantaged castes face in education: far fewer children from historically disadvantaged castes are likely to enroll in schools than children from traditionally privileged castes, and are more likely to fail in class and drop out of education before school completion (Desai et al 2010). Empirical analysis of the India Human Development Survey data indicates that people from historically disadvantaged castes have fewer years of education than people from privileged castes, and children from disadvantaged caste groups have a significantly lower ability to read even simple sentences or perform basic arithmetic calculations than their counterparts from privileged caste groups (Borooah 2012; Desai and Dubey 2012).

This paper contributes to this literature by shifting focus from the already identified systemic impediments to the subtler psychological hurdles that block the educational progress of historically disadvantaged castes. Drawing insights from psychological studies that explain the effects of sociocultural stereotypes on intellectual functioning, I implement an experiment to illustrate how caste consciousness could affect the academic performance of children from disadvantaged castes. In the experiment, I find that schoolchildren from disadvantaged castes performed poorly in basic mathematics calculations

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when they were made aware of their inherited caste identity and reservation status than otherwise. When the children were not made conscious of their disadvantaged caste identity or status in the experiment, they could perform the calculations as well as the other pupils who took the test. The details of the experiment and findings are presented, and some implications of the implementation of reservation policies in the country are discussed later in this paper. First I discuss the psychological reasons for why caste consciousness could hinder the academic performance of children from historically disadvantaged castes.

### Psychological Hurdles to Academic Performance

Psychological research demonstrates that negative sociocultural stereotypes about a group can adversely affect the scholastic attainments of members of that group when they fear that they may be reduced to that stereotype (Steele 1997). Labelled “stereotype threat,” the concern of confirming a negative stereotype may lead individuals who are associated with the group to perform worse than their abilities would suggest in evaluative situations, such as taking standardised tests (Aronson and Inzlicht 2004; Steele and Aronson 1995). Experimental studies in the United States (us) have shown that Black students and women—who were generally stereotyped to be scholastically inferior to White students and men—performed poorly in standardised tests when they feared that they might confirm the negative stereotypes about their intellectual abilities (Spencer et al 1999; Steele and Aronson 1995).

This susceptibility to stereotypes is, however, not a persistent mental state as internalised self-doubt; instead it is implicitly triggered (Shih et al 1999; Steele 1997). Subtle cues, hints, or prompts could activate generally held sociocultural stereotypes that then influence cognitive functioning in a manner consistent with these stereotypes, but stereotype threat and academic underperformance are unlikely when such stereotype reminders are absent (Croizet and Claire 1998; Steele and Aronson 1995). For instance, in experiments among American college students, Black students did poorly in standardised tests when they were primed to racial stereotypes about intellectual ability, but did not underperform in tests when they were not so primed (Steele and Aronson 1995).

Psychological impediments that individuals of stereotyped groups face thus are situational (Steele 1997). The impediments weigh on individuals of a negatively stereotyped group in socially evaluative circumstances when they fear that they may be judged on characteristics associated with their group. In evaluative situations, oblique hints of the negative stereotype could trigger psychological snags in individuals identified with the group. In the absence of such cues to stereotypes, individuals from groups with negative stereotypes can perform cognitive tasks as well as their abilities facilitate. Empirical studies also show that when stereotype-defying events take place—such as the presence of an accomplished role model from a group stereotyped to have low achievements—the psychological barriers of individuals of the group are significantly reduced even when negative stereotypes exist, and

their cognitive functions are not impaired during evaluative situations (Marx et al 2009).<sup>2</sup> Stereotype-defying role models can inspire belief that the negative stereotypes associated with group membership can be overcome (Lockwood 2006; Lockwood and Kunda 1997).

The insights from these psychological studies suggest why and how awareness of historically disadvantaged caste status could affect the academic performance of schoolchildren from those groups in India. Similar to the stereotypes about intellectual abilities of racial and gender groups in the us, inherited caste identities of Indians too bear stereotypes (Sinha and Sinha 1967). The stereotypes generally assign desirable qualities—such as “clever,” “cultured,” “industrious,” and “intelligent”—to the traditionally privileged castes and undesirable traits—“dull,” “idle,” “inefficient,” and “unintelligent”—to disadvantaged caste groups (Rath and Sircar 1960; Sinha and Sinha 1967). These stereotypes could impair the cognitive performance of individuals from negatively stereotyped caste groups in ways suggested by the scholarship in psychology.

These caste stereotypes exist, in part, due to the traditional association of caste with occupation, in which the privileged castes focused on learning, ruling and commerce, whereas the disadvantaged castes dealt in menial jobs in service of the privileged castes (Rocher 1975). Although this association between castes and occupation has weakened over the centuries, studies still find marked correlation between caste status and occupational position (see, for example, Béteille 1991, 2012). Traditionally privileged castes are found to be concentrated in occupations that require technical knowledge or cognitive and managerial skills, while the disadvantaged castes are clustered in low-skilled jobs that require physical labour (Ajit et al 2012; Deshpande and Palshikar 2008; Tripathi 2012).

In contemporary society, popular aphorisms and common lore keep alive caste stereotypes and have considerable consequences in employment and education (Sinha and Sinha 1967).<sup>3</sup> For instance, in interviews with researchers, employers revealed that they believed that the merit of jobseekers is unequally distributed according to caste (Jodhka and Newman 2007). Experimental studies showed that employers were more likely to give interview callbacks to job applicants from privileged castes than to candidates from disadvantaged castes even when they had identical résumés (Thorat and Attewell 2007).<sup>4</sup>

In educational institutions, stereotypes have fostered prejudice and partiality. Studies report how stereotypes have facilitated university students from privileged castes to attribute “genetic inferiority” to students from traditionally disadvantaged castes (Pathania and Tierney 2018). Even among schoolchildren, most children showed in-group bias along caste in forming friendships and considered students from historically disadvantaged castes to be academically inferior, suggesting that caste stereotypes are formed at an early stage in life (Mohite 2014; Nambissan 2009). Studies also document discrimination at school by teachers: one study documented how teachers classify students into “intelligent” and “behind” often on the

basis of caste, address students by their caste names instead of their given names, and tell students from disadvantaged castes that they “lacked the ability” and “do not deserve to study” (Nambissan 2009: 8).<sup>5</sup> In another study, schoolteachers held beliefs about the “inappropriateness for educational participation” of the disadvantaged castes and doubted their “educability” (Balagopalan and Subrahmanian 2003: 48–49).

Given the nature of caste stereotypes about intellectual abilities in India, it is reasonable to expect stereotype threat to play on the minds of students from disadvantaged caste groups in socially evaluative circumstances. In evaluative settings, references that make students conscious of their inherited caste group identity or status could make children from disadvantaged castes fear about confirming the negative stereotype about the intellectual abilities of their caste group, as psychological studies suggest. Caste consciousness then could adversely affect the academic performance of students from disadvantaged castes in evaluative settings such as classroom tests. Whether academic performance in fact is affected by caste consciousness was examined with the help of a field experiment.

### Experiment Setting and Design

The experiment took place in Kerala. Several factors made Kerala *prima facie* an appropriate experimental setting to study the influence of caste consciousness on academic performance. First, Kerala undertook extensive land reforms aimed at lowering the inequalities in material conditions that underpin some of the caste disparities in India.<sup>6</sup> Empirical studies suggest that inter-caste disparity in living conditions in Kerala is significantly lower than in other parts of India (Deshpande 2001). Kerala also has a long history of social reform and working class movements that sought to eliminate caste prejudices and educationally emancipate lower caste groups (Tharakan 1998). Analysis of the state’s schooling data in Sadanandan (2017: 108–109) indicates that school enrollment among historically disadvantaged castes is on par with their population shares. The state’s development trajectory, distinguished as the “Kerala model,” also records substantial achievements in the spheres of health, gender equality, and overall social welfare—critical attributes that correspond well with Kerala’s high literacy and educational attainment (Franke and Chasin 1989; Jeffrey 1992; Lieten 2002).

Given this development context of social reform movements, greater inter-caste equality, and notable gains in the educational sphere and general well-being, Kerala appears to have various factors that would weaken the grip of caste and make caste consciousness less pronounced in everyday life than in other parts of the country. Caste prejudice and consciousness should not be abiding concerns among schoolchildren in the state, as they are likely to be for children in some other states.<sup>7</sup> Kerala could thus allow us to observe the effects of the caste consciousness—that the study specifically introduced as part of the experiment—on the academic performance of school students more cleanly than in other states, where schoolchildren may already have heightened level of caste consciousness.<sup>8</sup>

To investigate whether caste consciousness affects academic performance, I administered a standardised mathematics test to 1,204 middle-school children in Kerala’s Thiruvananthapuram district in 2018. By no means do scores in mathematics tests depict the full range of children’s educational attainment. Yet I chose standardised test scores in mathematics as the indicator of academic performance since the level of knowledge and test scores in the subject have been shown to have long-run impact on children’s overall educational attainment and performance (Cortes and Goodman 2014; Cortes et al 2015; Watts et al 2018).

The experiment took place in eight schools, three of which were located in the urban part of the district and five in rural areas. The children chosen for the study were all from Class 8, aged between 12 and 14 (73% of the children were 13 year olds). The 10 test questions I designed and administered—comprising decimal multiplication and division, multiplication of negative numbers, square and square roots, and basic algebra—were associated with the mathematical attainment of eighth-grade-level students. The 10 questions were equally weighted, with a point each for correct responses, making 10 points the maximum possible test score. The test-takers were given up to 20 minutes to answer the questions during a normal class session, in the presence of their class teacher, at their schools. Most students took the test in under 10 minutes, with all of them finishing it within 15 minutes.

To one randomly selected half of the test-takers in each school, the experiment cued their inherited caste identity and reservation status immediately before they started answering the questions, by instructing them to first write on top of their standardised tests their caste and whether they belonged to the “general” or “reserved” category. The word “reserved” here is the quotidian description for historically disadvantaged identity groups that benefit from governmental affirmative action policies, including for those who benefit from representative quotas in educational institutions, whereas “general” refers to those who do not benefit from affirmative action policies.<sup>9</sup> This group of student comprised the treatment group. The other half of the test-takers—the control group—meanwhile went straight to answer the questions, without first having to write either about their caste identity or whether they were beneficiaries of reservation programmes. Through randomisation, the experiment thus created two groups of test-takers: one group that had students who were made conscious of their caste immediately before they took the test, and another group where students were not made caste conscious. For statistical analyses, I created a variable for the treatment—caste consciousness—that took the value of 1 if the test-takers belonged to the treatment group that was made caste conscious, and 0 if they were in the control group.

After the test, I also administered a questionnaire to all students to gather background information on their inherited caste identity and reservation status so that I have this information even for students who were not cued on caste prior to the test. From these responses, I created the “reserved category” dummy variable that took the value of 1 if the children belonged to the reserved category—that were beneficiaries of

affirmative action policies—and only if they belonged to the “general category.”<sup>10</sup>

In the questionnaire, I also inquired about the familial and socio-economic circumstances of all the test-takers.<sup>11</sup> As a measure of the children’s economic background, the questionnaire included details about the amenities—refrigerator, television, washing machine, and air conditioner—that each student’s family owned. From this roster, I created a variable about the children’s economic background characteristics: an ordinal variable for household amenities, ranging from 0 to 4; with 0 if the child’s family had none of the household items, and 4 if they had all four. As an additional measure of the children’s economic circumstances, I also gathered information about the households’ monthly income. The reason for seeking information about the ownership of household amenities was the expectation that young teenagers were more likely to know about the appliances in their homes than their family’s income. About 38% of the children did not know about their family’s monthly income whereas all the test-takers recalled what amenities they had in their homes. The questionnaire also asked the students about their age, gender, number of siblings, as well as father’s and mother’s educational qualifications—other factors that could influence the educational competence of children.

## Results and Interpretation

Because of randomisation, schoolchildren in both the treatment and control groups ended up having similar personal, familial and socio-economic characteristics. In both groups, a similar share, that is, 80% of children had at least one sibling, their parents had on average about 15 years of education, and their families had the same number of household amenities. In fact, on all of the factors—such as age, gender, parental education, size of the sibling cohort, and socio-economic circumstances—that could affect a child’s academic performance at school, the children in the two groups were similar.<sup>12</sup> Table 1 presents details of the similarities in all the background characteristics of the children in both the groups. The absence of significant differences in age, gender, familial or socio-economic backgrounds between the schoolchildren in the two groups

**Table 1: Background Characteristics of Children in Control and Treatment Groups**

	Control Group: No Caste Consciousness	Treatment Group: Caste Conscious
In mean and standard deviations		
Age	12.82 [0.49] *	12.82 [0.48]
Reserved category	0.49 [0.5]	0.54 [0.5]
Father’s education	15.18 [1.92]	15.63 [2.79]
Mother’s education	15.44 [2.43]	15.53 [1.54]
Monthly family income**	94.75 [10.63]	106.86 [13.81]
Household amenities	3.28 [0.79]	3.25 [0.81]
Size of sibling cohort	0.98 [0.84]	0.96 [0.66]
Test score	8.72 [0.84]	8.12 [1.31]
In percentage		
Girls	40.95	41.95
In numbers		
Schoolchildren	508	696

\* Standard deviations are in brackets.

\*\* Monthly family income is the log transformation of the amount in Rupees.

allows the study to narrow the focus on the group differences of interest, that is, the difference in caste consciousness and any difference in test scores.

Test scores of the two groups differ, as reported in Table 1: the average score for the treatment group of students who were made conscious of their inherited caste identity and reservation status is more than half a point lower than that of students in the control group who were not made caste conscious. According to psychological studies, it is reasonable to expect that the intervention—to make students conscious of their caste background—has had disparate effects on the general category of traditionally privileged castes and the reserved category of historically disadvantaged castes in the treatment group. Since both the treatment and control groups have students from the general and the reserved categories, I further examined the distinct effects of caste consciousness on the test scores of different categories of students in both groups.

I analysed the heterogeneous impact of caste consciousness on the academic performance of schoolchildren with an interaction term between “reserved category” and the treatment variable, “caste consciousness,” in regression models. The results from these regressions are presented in Table 2. The interaction term is statistically significant at the 1% level across models in Table 2. I estimated test scores in two ways: first, using ownership of household amenities as the sole measure of socio-economic circumstances (Model 1), for which I had responses from all the children surveyed, and then, using the additional economic measure of family income and parental educational levels (Model 2), on which not all the children had knowledge.<sup>13</sup> I found consistent estimates for the interaction term across these analyses.<sup>14</sup> The models were estimated again with school fixed effects, and with robust standard errors clustered by school. The estimates of the interaction term from the fixed effects model (coefficient = -1.18; standard error = 0.14) and the clustered standard errors model (coefficient = -1.15; standard error = 0.09) were very close to the estimates obtained from the base specifications reported in Table 2. These results are unsurprising since, in the experimental design, the treatment was randomised at the level of individual

**Table 2: Regression Results**

Dependent Variable: Test Score	Model 1	Model 2
Reserved category * Caste consciousness	-1.22 (0.08) ***	-1.15 (0.13) ***
Reserved category	-0.04 (0.09)	0.06 (0.17)
Caste consciousness	0.08 (0.09)	-0.03 (0.13)
Size of sibling cohort	-0.04 (0.04)	0.09 (0.07)
Age*	-0.15 (0.06) ***	-0.19 (0.1) *
Gender*	0.17 (0.06) ***	1.18 (0.1) *
Household amenities	0.04 (0.04)	-0.08 (0.06)
Monthly family income		0.1 (0.06)
Mother’s education		-0.03 (0.03)
Father’s education*		0.09 (0.02) ***
N	1,204	496

Estimates are from OLS models. Standard errors are reported within parentheses. All models have a female dummy for *Gender*. *Monthly family income* is log transformed. Model 2 has fewer observations than Model 1 because several children did not know their family’s income or the educational level of their parents.

\* Standard deviations are in brackets, \*\*\* Significance at the 1% level.

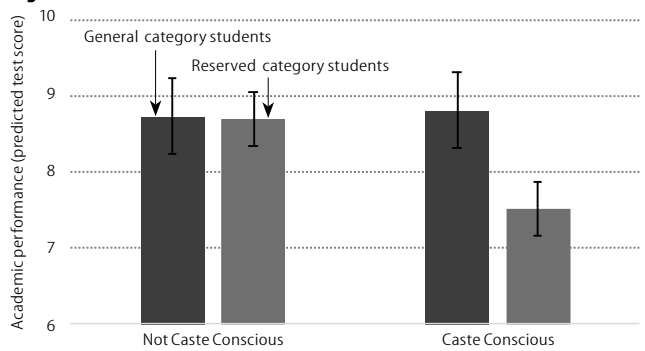
test-takers—and not at the school level—for school attributes to confound the regression estimates.

Across these models, the only other variable that related to students' test score at the conventional level of statistical significance— $p$  value of 0.05—was father's education: the variable was positively related to the test scores of children. These results are consistent with studies that find positive association between father's education and educational attainment in children (Emerson and Souza 2007; Sewell and Shah 1968), insofar as fathers are assumed to take interest in their children's education. Ethnographic studies in India point to the importance of having educated parents who are able to help children with after-school homework, thereby improving their schooling experience (Nambissan 2009). The absence of relation between children's test scores and mother's education in the study is not to be interpreted to mean lack of interest in children's education among mothers. Instead, it is perhaps due to the nature of the test I administered: the test was in mathematics, a subject in which significant gender differences still exist in India, with men outperforming women (Makel et al 2016).<sup>15</sup>

The heterogeneous impact of caste consciousness on the schoolchildren's test scores are clearer from the marginal effects I computed from the models in Table 2. In the control group—the group of students who were not made conscious of their caste identity or status—test-takers from both the general and reserved category performed equally well: the predicted mean score in the reserved category was 8.7 ( $t$  statistic = 133.8) and the mean score of the students in the general category was 8.74 ( $t$  statistic = 137.4). In effect, the academic performance of children belonging to historically disadvantaged caste groups was on par with that of children from traditionally privileged castes in the absence of any cues alerting them to their inherited caste identity or reservation status. Previous research suggested a narrowing of the gap in educational attainment among different caste groups in Kerala due to the state's sustained efforts at expanding education to all segments of society, especially among the traditionally disadvantaged caste groups (Franke and Chasin 1989; Sivananda 1979). The findings from the experimental control group underscore this convergence in educational performance among Kerala's schoolchildren from different caste groups.

Making schoolchildren conscious of their caste, however, impaired the parity in test scores among students from different caste backgrounds in the experiment, by affecting the academic performance of students from historically disadvantaged castes. In the treatment group, where I instructed the test-takers to write down inherited caste identity and reservation status prior to the test, the children from historically disadvantaged caste groups performed poorly relative to children from traditionally privileged castes: more than a full point differentiated the average test score of students in the reserved category from the general category students. The predicted mean score for the reserved category students in the treatment group was 7.53 ( $t$  statistic = 142.8), whereas it was 8.8 ( $t$  statistic = 154.5) for the general category students. The

**Figure 1: Predicted Test Scores**



average score of general category test-takers in the treatment group was substantially the same as that in the control group (difference in means = 0.06), indicating that the disparity in academic performance between the general and reserved category students in the treatment group was almost entirely due to the drop in the test scores of students from the reserved category. The absence of drop in the test scores of general category students in the treatment group also serves to suggest that the fall in test scores among reserved category students in the treatment group was not due to a decrease in mental concentration that the experimental intervention somehow caused. If distraction were the cause for poor academic performance, then the general category students in the treatment group—who too were subjected to the same intervention, of having to write down their caste identity and status—should also have done poorly in the test.

### Adverse Impact of Caste Consciousness

The fall in academic performance among caste-conscious reserved category students is relative not just to the general category students, but also to reserved category students who were not cued to their inherited caste identity or affirmative action status prior to the test. More than a full point separated the average scores of reserved category students in the treatment and control groups, with the mean score of caste-conscious students trailing behind (see Figure 1). In other words, caste consciousness seems to have considerable adverse impact on the academic performance of students from historically disadvantaged castes. Cueing reserved category students to their inherited caste identity and affirmative action status seems to adversely affect their academic potential by making them function worse than their intellectual abilities suggest.

These results were unlikely to be affected by confounding. Randomisation in the experiment was designed to reduce the influence of confounding factors (Greenland 1990). To corroborate that this is in fact the case, I repeated the analysis using a restricted model that compared only the test scores of reserved category students who were similar in all the observed personal, familial, and socio-economic variables, but differed only on the treatment variable—that is, some of them were caste-conscious prior to taking the test, while others were not.<sup>16</sup> In this subsample of reserved category students who were matched on every observable way, we expect that there would be fewer differences in any omitted variables. Even

when I thus restricted the sample to reserved category of students who were alike, the results still saw poor academic performance among students who were made aware of their inherited caste identity and reservation status prior to the test: they scored more a full point lower (difference in predicted scores = -1.2; *t* statistics = -5.7) than the reserved category students who were not made caste conscious prior to the test. The estimates from the matching model were close to the marginal effects I discussed earlier from Table 2, indicating that the findings were unlikely to be caused by some unobserved confounding factors.

That said, the interpretation of these results nevertheless has to be tempered by the recognition that we cannot fully know what was on the minds of the children in the treatment group after they were wrote down their inherited caste identity and reservation status just prior to taking the test. The limitation in knowledge about the children's mental states during the test urges caution in attributing the decline in academic performance of reserved category students in the treatment group entirely to caste consciousness. Yet, the results unmistakably show that test scores dropped among test-takers from historically disadvantaged castes who were cued to their caste identity and status to suggest that at least some part of the children's mental state was likely the fear of confirming the negative stereotype about the intellectual deficiencies of their caste.

Taken together, the results of all the analyses provide ample illustration of how caste consciousness could significantly and negatively affect the academic performance of children from historically disadvantaged castes. Making reserved category children aware of their inherited caste identity and status likely impairs their cognitive faculties and makes them perform poorly in academic tasks. The results also support a finding that susceptibility to stereotypes is not a persistent mental state but, instead, that it is situational—activated among members associated with the negatively stereotyped group when they are made aware of the stereotype in socially evaluative situations. Had a persistent mental condition such as internalised self-doubt afflicted the students from historically disadvantaged caste groups in the study, they would have consistently done poorly in tests. That was not the case here. As a matter of fact, there was no significant difference in test scores between the reserved and general category students in the control group that was not made caste conscious. Only when cued to inherited caste identity and affirmative action status did reserved category test-takers perform poorly.

## Conclusions

Children from traditionally discriminated caste backgrounds are at a substantial disadvantage in access to or completing schooling in India. In addition to known systemic hurdles, this study presented evidence that highlight the importance of psychological factors that affect academic performance of children from historically disadvantaged castes. The difference in test scores of reserved category students in the control and treatment groups indicate how caste consciousness could impair

the cognitive faculties of children from disadvantaged castes and hold them back from realising their academic potential.

I wish to make two further points in conclusion. First, the findings of this study are not aimed at questioning the academic accomplishments of several people from historically disadvantaged castes who throughout history have performed highly against significant odds, prejudice and discrimination. Instead, what the study demonstrates is the enduring influence of caste, via stereotype consciousness, that might still be holding back many others from fulfilling their academic potential. I also do not seek to establish that the results of this experimental study in Kerala will hold true for every child from a historically disadvantaged caste in every part of India. However, I want to suggest that, to the extent negative stereotypes about the intellectual abilities of castes prevail on at least some children from disadvantaged castes and prevent them from doing well at school, the damaging potential of caste stereotypes on academic performance ought to be taken seriously. I also want to suggest that the damaging influence of caste stereotypes might play a part in the educational gap between children from different caste backgrounds, and higher dropout rates among students from historically disadvantaged caste groups. To these end, this study drew attention to the effects of stereotype threat, anticipating future studies to examine other psychological impediments—such as lack of self-esteem—that might be harming the academic potential of students from groups that have been historically discriminated and persistently stereotyped.<sup>17</sup>

Second, insofar as stereotype threat is situational, the negative impact of caste consciousness on children's academic performance can be remedied through some basic measures to realise the goal of India's education reservation policies—to narrow the academic gap between historically disadvantaged castes and the rest of the citizens. One way would be to introduce to students from historically disadvantaged castes role models from similarly stereotyped caste backgrounds. Role models can inspire belief that the negative stereotypes associated with group membership can be overcome, thereby counteracting stereotype threat (Lockwood 2006; Lockwood and Kunda 1997). In the US, the election of Barack Obama as the first African American president created a profoundly beneficial "Obama effect" on the academic performance of African American students (Marx et al 2009). In India, having more teachers from historically disadvantaged castes in educational institutions could function as role models to students from similar backgrounds.<sup>18</sup> Classroom discussions on the lives and achievements of people from traditionally discriminated castes could also counteract threats from negative stereotypes, as some students from disadvantaged castes told an interviewer: "if [we] were taught about a leader, such as Ambedkar, and if his life and achievements were discussed in class, it could inspire Dalit students as well as raise their self-image" (Nambissan 2009: 10). Another measure would be to eliminate reminders of inherited caste identity and reservation status in educational institutions. Indian schools and colleges that publicise the reservation status of admitted students—

making it easier both to identify students by their inherited caste backgrounds, and for stereotype threats to prevail in classrooms and on campuses—could cease the practice of publishing this information. The fulfillment of reservation quotas

and other affirmative action responsibilities of educational institutions could still be ensured through audits by statutory bodies such as the commissions for Scheduled Castes, Scheduled Tribes, and backward classes.

## NOTES

- 1 Thorat and Newman (2009) document the caste differences in several aspects of life in India, including the links among education, wealth, and well-being.
- 2 Marx et al (2009) report that as Barack Obama's accomplishments became known during the 2008 US presidential elections, the exam performance of African Americans improved dramatically. This effect was more specific than Obama's effect as the first African American president in inspiring general hope among African Americans.
- 3 Sinha and Sinha (1967: 44–46) document some of these aphorisms. For example, “[A certain disadvantaged caste] attains maturity at the age of sixty,” and “In [a privileged caste] house a cat learns two letters and a half.”
- 4 However, Banerjee et al (2009) do not find difference in interview callback rates for high-skilled service sector jobs in software and call-centres. The authors point out that the harder skills required for these jobs and the straightforward credible certifications of those skills make it relatively easier for candidates from disadvantaged castes to secure job interviews.
- 5 Nambissan (2009: 22) reported how calling castes names instead of given names made students from disadvantaged castes “lose confidence” and “feel low.”
- 6 Raj and Tharakan's (1983) study examines the nature, extent, and impact of land reforms in Kerala.
- 7 See Thorat and Newman (2009) for a discussion on caste prejudice and discrimination school children face in India.
- 8 On caste consciousness among school children, see Mohite's (2014) study in Maharashtra. The study found that every interviewed student from two schools was aware of his or her caste and formed friendships on the basis of caste. In the villages where the students lived, caste was a primary social identity that children could scarcely escape from.
- 9 The research design considered whether the treatment prompt should instruct test-takers to note just their inherited caste identity or just affirmative action status. This method could have helped in teasing out any distinct effect that awareness of mere caste identity or affirmative action have on cognitive functioning. However, since the focus of this study was to examine the impact of stereotype threat—and not the relative salience of either caste identity or affirmative action status—on academic performance, the treatment instructed test-takers to note both their inherited caste identity and affirmative action status.
- 10 For coding this variable, I took children's self-reported caste identity and status from the test and the questionnaire that was administered to the students immediately after the test. To corroborate that the students had rightly identified their inherited caste identity as either “reserved” or “general,” I consulted the Kerala government's official list of groups that are target beneficiaries of affirmative action policies. Government of Kerala (2019).
- 11 The questionnaire responses were matched to the tests through a unique identification number I had assigned to each set of test and questionnaire.

- 12 Parental education and socio-economic circumstances are known to be significantly associated with academic performance (see Borooah 2012).
- 13 Since parents' education, family income, and the ownership of household amenities tend to be correlated, I analysed the models to see if the assumption of no multicollinearity is violated, and found that multicollinearity was not a concern here: Household amenities (Tolerance = 0.87, VIF = 1.14), Monthly family income (Tolerance = 0.71, VIF = 1.41), Mother's education (Tolerance = 0.81, VIF = 1.23), Father's education (Tolerance = 0.65, VIF = 1.54).
- 14 I repeated the regressions with ownership of household amenities and parental education, and with just household income as the socio-economic variable to find estimates very similar to the estimates in Table 2. I do not report these additional estimates here.
- 15 As per the findings of Makel et al (2016), I would likely have found significant positive relation between mother's education and children's scores if I had administered a verbal test, in which women in India do relatively better than men.
- 16 Propensity score matching models developed as a statistical method to reduce the effects of confounding when using observational data (Rosenbaum and Rubin 1983). Matching methods are now also used in randomised experimental studies to increase the precision of the treatment effect estimates (see, for example, Williamson et al 2013).
- 17 On the relation between self-esteem and education, see for example, de Araujo and Lagos (2013) and Ferkany (2008).
- 18 In interviews by both Nambissan (2009) and Sangole (2018), students from disadvantaged castes talk about the absence of teacher role models from their caste backgrounds.

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