Social and ethnic biases in primary school

Katherin Barg

Valentina Perinetti Casoni

Project overview

- ESRC New Investigator Project (February 2022-November 2023)

- **Are primary school teachers' perceptions of their students systematically *biased* against certain socioeconomic and ethnic groups?**

- Focus on teacher perceptions of:

  o Students' attitudes towards school

  o Students' abilities in different school subjects

  o Their parents' interest and involvement

- Also: exploration of impact of 'macro-level factors': What's the role of education systems, teacher training and so on, in shaping biases?

Theoretical background *(some of it)*

- Critical theory (teachers as 'gatekeepers', Bourdieu etc.)

- Teacher expectancy effects (Pygmalion in the classroom)

Methodology

- Secondary data analysis using four nationally representative data sets including *primary school* students
    - England (UK Millennium Cohort Study)
    - Scotland (Growing Up in Scotland)
    - Germany (National Education Panel Study)
    - Ireland (Growing Up in Ireland)
- Estimations of discrepancies between teacher reports and students'/parents' own reports or standardized test results
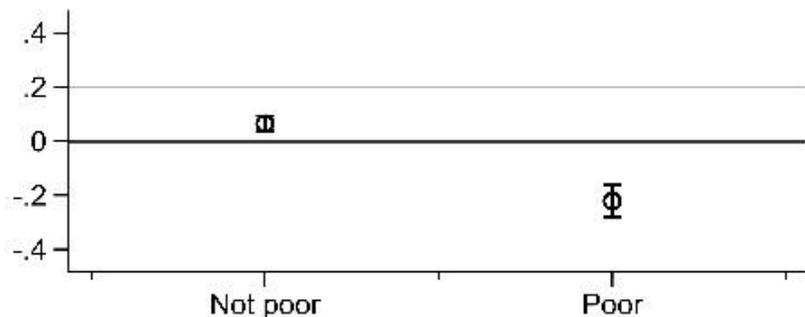
Today: some preliminary results

- **England data only** (UK Millennium Cohort Study, students aged 11 years, N=around 5,000)

- **Attitudes to school** - discrepancy between teacher reports and students' own reports:

  - Student tries their best at school

  - Student seems to enjoy school

  - Student misbehaves at school

  - Student seems bored by school

- Discrepancy is calculated using residuals (Madon et al 1997): linear regression model predicts teacher report with student report as main independent variable; 'distance' between teacher report and the regression line (residual) represents discrepancy.

- Next slide: descriptive statistics showing distribution of residuals (i.e., discrepancy between teacher and student report) for different student groups

(mean) Residuals by **POVERTY STATUS**

T measure: CM tries their best at school
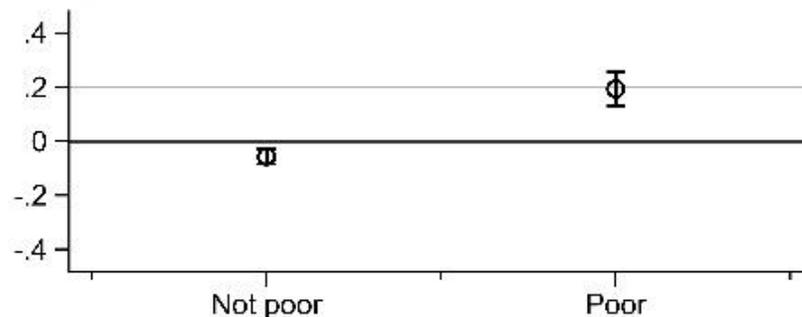
CM measure: CM tries their best at school

OG T measure: 1) Never, 2) Sometimes, 3) Usually, 4) Always
OG CM measure: 1) Never, 2) Some of the time, 3) Most of the time, 4) All of the time

T measure: CM misbehaves or causes trouble in class

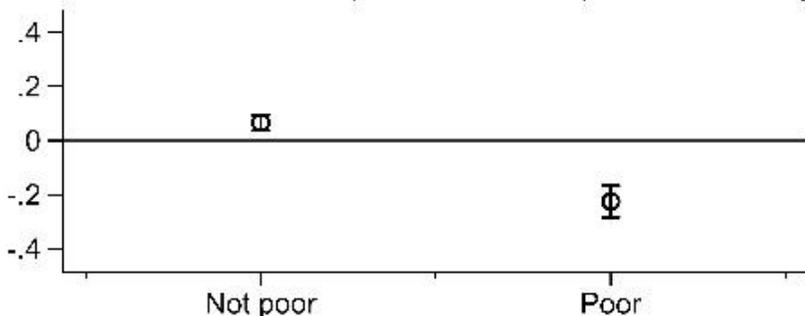CM measure: CM misbehaves or causes trouble in class

OG T measure: 1) Never, 2) Sometimes, 3) Usually, 4) Always
OG CM measure: 1) Never, 2) Some of the time, 3) Most of the time, 4) All of the time

T measure: CM seems to enjoy school

CM measure: All CM-reported measures (likes & interesting)
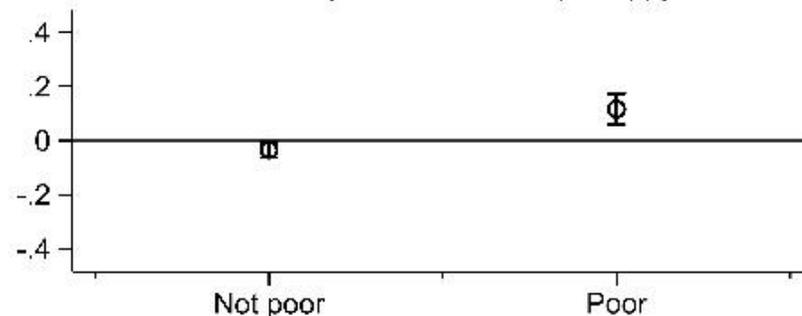

OG T measure: 1) Never, 2) Sometimes, 3) Usually, 4) Always
CM measure: AVG 2 CM-reported measures from 1) Never to 4) All of the time OR 3) A lot

T measure: CM seems bored by school

CM measure: All CM-reported measures (unhappy tired & waste)

OG T measure: 1) Never, 2) Sometimes, 3) Usually, 4) Always
OG CM measure: AVG 3 CM-reported measures from 1) Never to 4) All of the time

Positive residual: teacher is overestimating CM's attitude
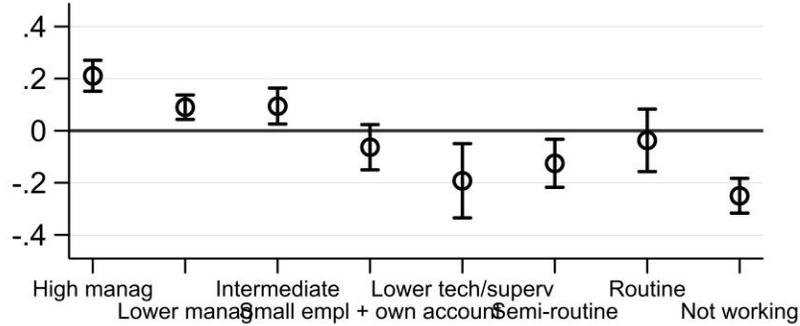Negative residual: teacher is underestimating CM's attitude

01 March 2023

(mean) Residuals by **HIGHEST PARENTAL NS-SEC07**

Social class

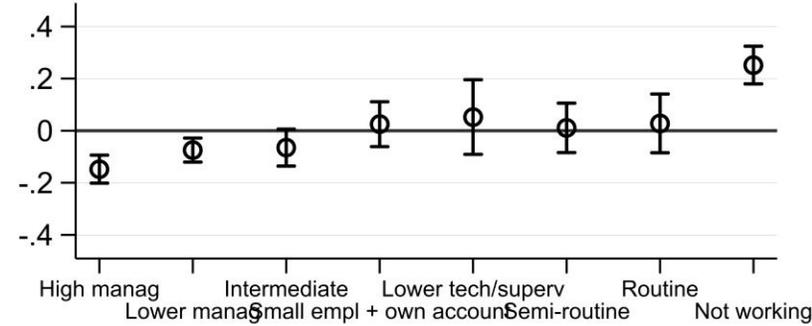### T measure: CM tries their best at school

CM measure: CM tries their best at school

OG T measure: 1) Never, 2) Sometimes, 3) Usually, 4) Always
OG CM measure: 1) Never, 2) Some of the time, 3) Most of the time, 4) All of the time

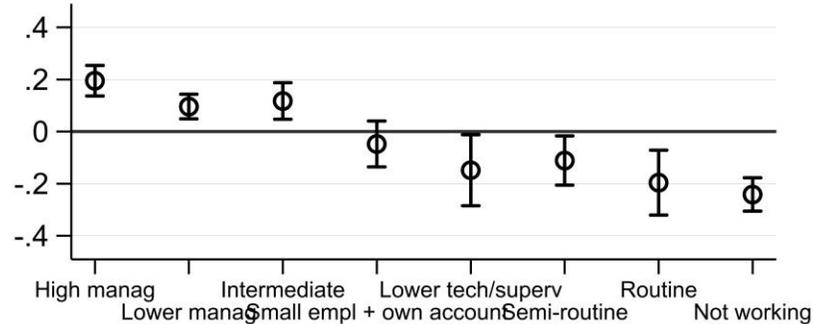### T measure: CM misbehaves or causes trouble in class

CM measure: CM misbehaves or causes trouble in class

OG T measure: 1) Never, 2) Sometimes, 3) Usually, 4) Always
OG CM measure: 1) Never, 2) Some of the time, 3) Most of the time, 4) All of the time
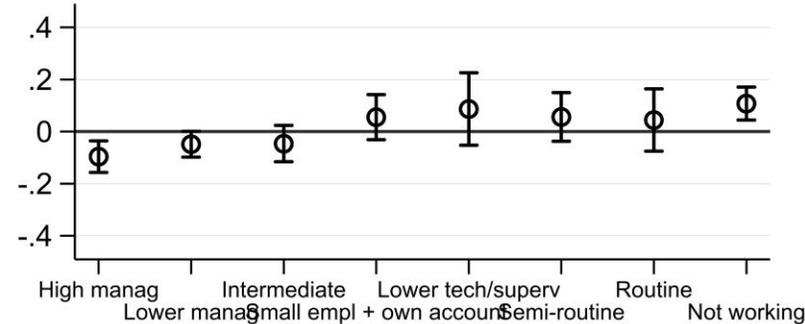
T measure: CM seems to enjoy school

CM measure: All CM-reported measures (likes & interesting

OG T measure: 1) Never, 2) Sometimes, 3) Usually, 4) Always
CM measure: AVG 2 CM-reported measures from 1) Never to 4) All of the time OR 3) A lot

T measure: CM seems bored by school

CM measure: All CM-reported measures (unhappy tired & waste)
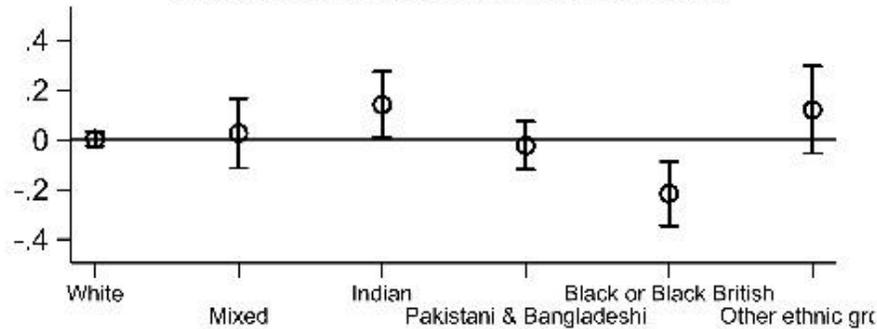

OG T measure: 1) Never, 2) Sometimes, 3) Usually, 4) Always
OG CM measure: AVG 3 CM-reported measures from 1) Never to 4) All of the time

Positive residual: teacher is overestimating CM's attitude
Negative residual: teacher is underestimating CM's attitude

01 March 2023

(mean) Residuals by **ETHNICITY OF CM**

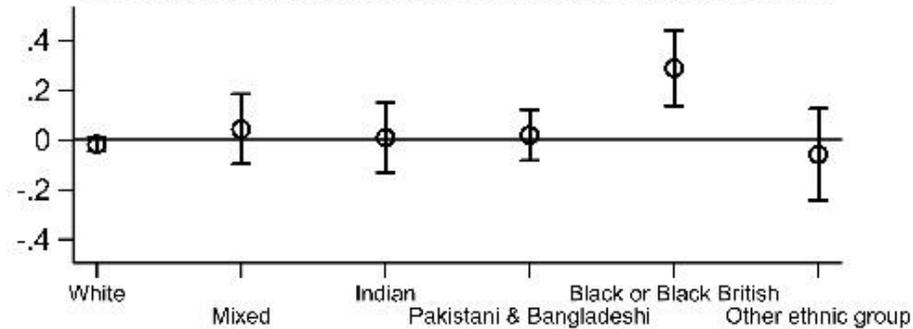### T measure: CM tries their best at school

CM measure: CM tries their best at school

OG T measure: 1) Never, 2) Sometimes, 3) Usually, 4) Always
OG CM measure: 1) Never, 2) Some of the time, 3) Most of the time, 4) All of the time

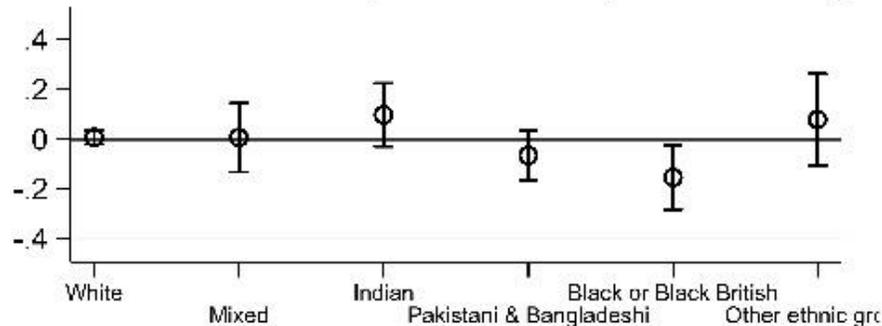### T measure: CM misbehaves or causes trouble in class

CM measure: CM misbehaves or causes trouble in class

OG T measure: 1) Never, 2) Sometimes, 3) Usually, 4) Always
OG CM measure: 1) Never, 2) Some of the time, 3) Most of the time, 4) All of the time

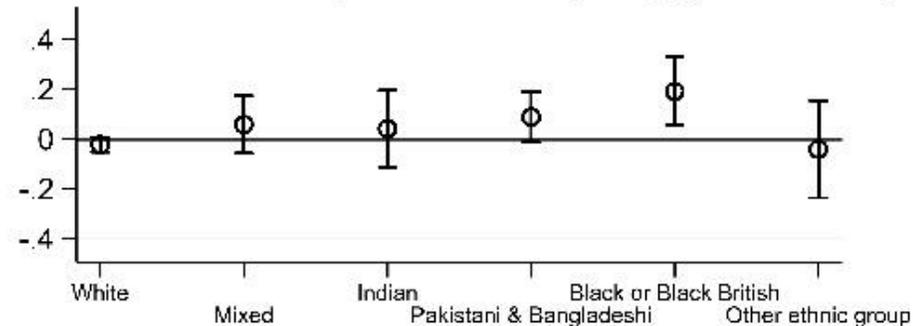### T measure: CM seems to enjoy school

CM measure: All CM-reported measures (likes & interesting)

OG T measure: 1) Never, 2) Sometimes, 3) Usually, 4) Always
G CM measure: AVG 2 CM-reported measures from 1) Never to 4) All of the time OR 3) A lot

T measure: CM seems bored by school

CM measure: All CM-reported measures (unhappy tired & waste)

OG T measure: 1) Never, 2) Sometimes, 3) Usually, 4) Always
OG CM measure: AVG 3 CM-reported measures from 1) Never to 4) All of the time

Positive residual: teacher is overestimating CM's attitude
Negative residual: teacher is underestimating CM's attitude

01 March 2023

Preliminary results from multivariate analysis

- Linear regression including a range of student characteristics (e.g., social, ethnic background, academic ability, socioemotional difficulties)
- Even when controlling for social class, family income quintiles, parental education, student prior ability and student socioemotional difficulties, we find:
  - *Student tries their best at school*: Black/Black British students underestimated by teacher
  - *Student misbehaves in school*: Black/Black British students and students from low-income households reported more negatively by teacher
  - *Student seems to enjoy school* and *student seems bored at school*: no strongly significant group differences

Summary

- Teachers overestimate attitudes of children from middle classes

- Teachers tend to view Black/Black British and students from low-income families more negatively (esp., regarding misbehaviour and trying best at school)

- → **Systematic link between teacher over-/underestimating students and student ethnic/socioeconomic background**

- Why?
  - Teachers' unconcious bias and stereotypes?
  - Differences in undestandings of 'trying best at school', 'misbehaviour'
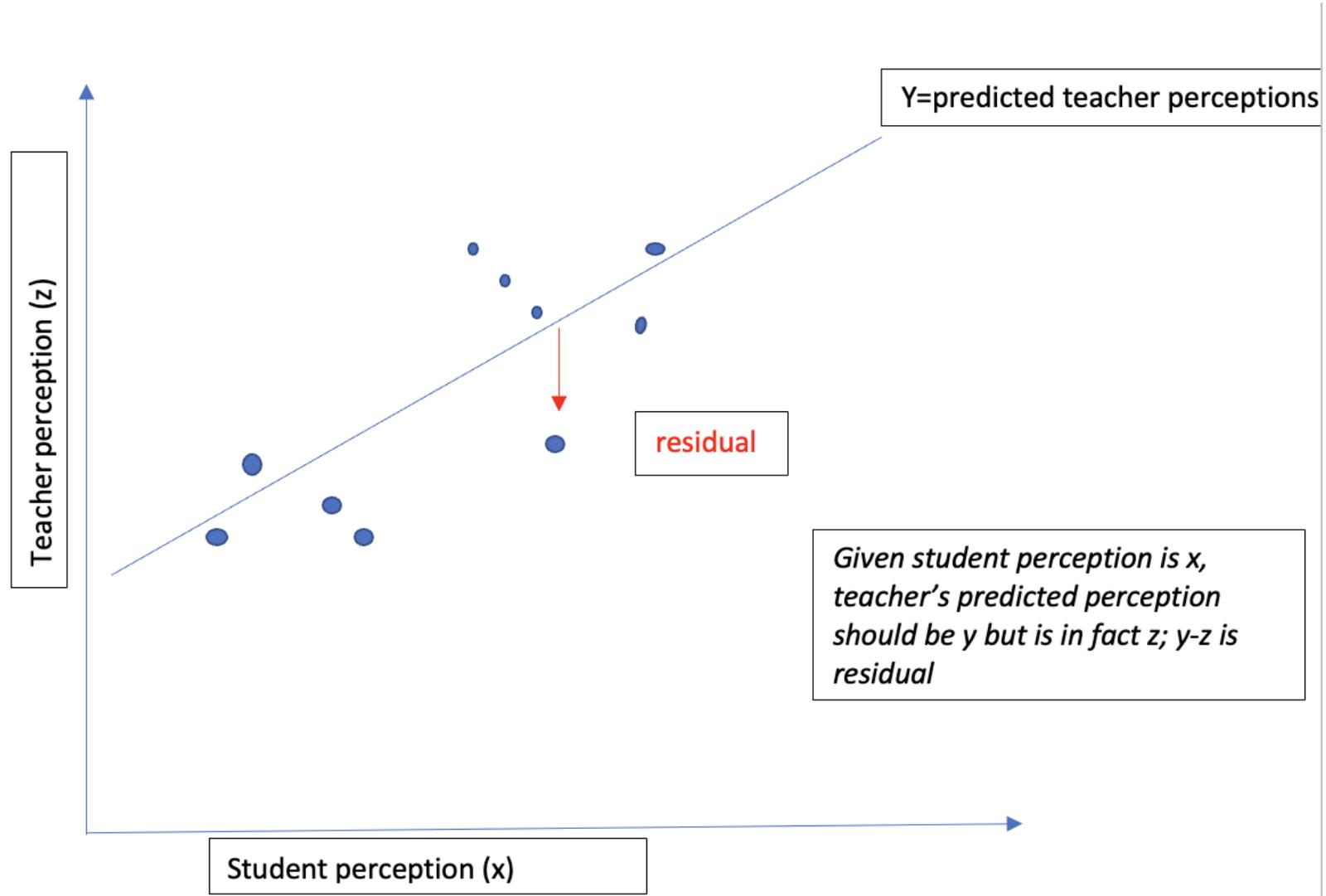 - → middle-class students and teachers have more similar understandings of these concepts?

Thank you!

BIPE-project website: https://bipeproject.blogs.bristol.ac.uk/

Comments and suggestions to: Katherin.Barg@bristol.ac.uk

Illustration of residual calculation

Y=predicted teacher perceptions

Teacher perception (z)

residual

Given student perception is x, teacher's predicted perception should be y but is in fact z; y-z is residual

Student perception (x)

Read more: Madon, S., Jussim, L., & Eccles, J. (1997). In search of the powerful self-fulfilling prophecy. *Journal of Personality and Social Psychology, 72*(4), 791–809.