

Formal explanations and essentialism of social categories (#16013)

Created: 11/06/2018 08:03 AM (PT)

Public: 06/18/2022 03:09 AM (PT)

Author(s)

Melis Muradoglu (New York University) - melis.muradoglu@nyu.edu
Kristan Marchak (University of Michigan) - kmarchak@ualberta.ca
Andrei Cimpian (New York University) - andrei.cimpian@nyu.edu
Susan Gelman (University of Michigan) - gelman@umich.edu

1) Have any data been collected for this study already?

It's complicated. We have already collected some data but explain in Question 8 why readers may consider this a valid pre-registration nevertheless.

2) What's the main question being asked or hypothesis being tested in this study?

Do formal explanations promote essentialist beliefs about social categories in young children?

3) Describe the key dependent variable(s) specifying how they will be measured.

We administer measures of essentialism that assess children's beliefs about stability across time (two questions), stability across contexts (two questions), and generalizability (one question).

4) How many and which conditions will participants be assigned to?

Children will be randomly assigned to either a formal explanation condition or a control condition. Children in the formal explanation condition will be introduced to novel behavioral features of four boys or four girls using formal explanations ("Yesterday this girl ate a gooseberry. And do you know why the girl did that? Because she's a girl."). Children in the control condition will be introduced to novel behavioral features of four boys or four girls using closely matched wording ("Yesterday this girl ate a gooseberry. And do you know why the girl did that? Because the girl felt like it.").

5) Specify exactly which analyses you will conduct to examine the main question/hypothesis.

We will analyze the data using a multilevel linear model with condition (between-subject; 0 = control, 1 = formal explanation), age (continuous), and the interaction between the two as predictors. We will include subject, item, and question as random effects.

6) Describe exactly how outliers will be defined and handled, and your precise rule(s) for excluding observations.

Children who refuse to finish the study or are out of the target age-range (5- or 6-years-old) will be excluded from the analysis.

7) How many observations will be collected or what will determine sample size? No need to justify decision, but be precise about exactly how the number will be determined.

We plan to collect enough data until we have 48 subjects who pass a post-test administered at the end of the study. The post-test is designed to measure children's understanding of the generalizability DV. Children who fail the posttest will ultimately be replaced by children who pass the posttest, but everyone will be included in the analyses.

8) Anything else you would like to pre-register? (e.g., secondary analyses, variables collected for exploratory purposes, unusual analyses planned?)

We are replicating a prior study in which we found that formal explanations promoted essentialism of social categories in older, but not younger children (i.e., a Condition by Age interaction). With the present study, we made minor changes to the script and the stimuli. If we find a main effect of condition (with no interaction with age), we will conclude that formal explanations promote essentialism in children across our age range (5- to 6-year-olds). However, if we find no main effect of condition and an interaction with age as we did in the prior study, we will conclude that formal explanations promote essentialism in older, but not younger children. Though we didn't preregister before collecting data for the current study, we haven't made any changes since the start of data collection.