

We thank the reviewer for the thoughtful review and comments. The following is our response to the questions/concerns you have.

Major Problems:

Q1. Instead of going the direction of causal identification, the paper can be enriched by looking at more dimensions of child development – Does the survey contain any psycho-social indicators?

A1. Yes, this survey contains some questions about the openness and the extraversion of students. We will add this part in the revised manuscript.

Q2. If you look at the data summary table (page 7), only 3.2% of all children belong to his category (sibr2), and the next category (sibr3) is 22.7%. There must be some mistakes in handling the data - How can there be so many third born children when the second born is so few? Even if data processing is corrected, I think this data set is not suitable for studying the sibling effect - You would need family fixed effect models. Since children from same families can not be identified, this is impossible.

A2. I am sorry for missing the description of sibr2 and sibr3. In this survey, they provided a set of questions: “Are you the firstborn of your family?” “Are you the mid-child of your family?” and “Are you the lastborn of your family?” If there are two children in a family, the respondent may be the firstborn or the last born. Therefore, only 3.2% of all children belong to his category sibr2 implies there are only 3.2% of samples with more than 1 sibling. In other words, most of the samples are only children or children with only one sibling.

We agree with your comment that this data set is not suitable for studying the sibling effect. Thus, we will focus on the comparison between only children and children with siblings rather than identifying the birth order effect.

Q3. Many categorical variables (ethnicity, party membership. Hukou place and others) that take values from 1 to N are treated as continuous variables in regressions – they should be converted to dummy variables with values of 0 and 1.

A3. Thanks for your comment and they will be converted in the revised manuscript.

Minor problems:

Q1. You need better data description. In what provinces are these schools chosen? Within a school, how are classes and students chosen? Are these places mainly urban or rural, poor or rich areas?

A1. Surely, we will improve the data description in the revised version.

Q2. Variable definitions are sometimes unclear: sibr1-3 are not defined.

A2. As the answer 2 of the major problem, sibr1-3 will be removed.

Q3. Sample choice: why do you drop 9th grade students? You are not doing student individual fixed effect so there is no need to drop them.

A3. The wave of 2014-15 provides some important variables such as parents' characteristics and the full mark of each subject in particular schools. However, the 9th grade students are not tracked in the 2014-15 academic year. Therefore, we have to drop them.

Q4. Why don't you use class fixed effects?

A4. We will use class fixed effects in the revised manuscript.

Q5. I suggest that you report control variables in the regressions.

A5. We will provide the results of control variables in the revised manuscript.

Q6. Use better variable naming in the regressions so that they are self explanatory.

A6. Sure, we will rename some variables in the revised manuscript.

Q7. Literature section is too long.

A7. Sure, we will make it shorter.