

preregistro (english version)

Changes in Beliefs about Meritocracy and Redistribution in the School Context

1- What is the hypothesis that will be investigated?

Provide a brief description of the relevant theory and formulize the hypothesis as precisely as possible.

The increasing levels of economic inequality and income concentration have driven research in recent years on preferences for economic redistribution (Becker 2021; Rueda and Stegmueller 2019), understood as beliefs about the need for economic transfers to those with less, usually through the State. However, most research on redistributive preferences has focused on adult populations, leaving aside the study of factors associated with these preferences at younger ages and their formation. Using data from the Education and Meritocracy panel survey (N=900, year 2023-2024) of primary and secondary education in Chile, this study delves into the change in perceptions and preferences regarding meritocracy in schools and society on preferences for redistribution. Given that meritocracy is conceived as a system where rewards are distributed according to individual effort and talent (Young 1958), the central hypothesis is that those who perceive more meritocracy in school and society will tend to show lower preferences for the role of government in redistribution, as social conditions are believed to allow for the achievement of individual success.

Two aspects of the operationalization of meritocracy will be considered in its conceptualization and measurement. First, the perception of school meritocracy is associated with the idea that intelligence and effort are relevant for obtaining good grades in school (Resh 2010). Second, a measurement of meritocracy in society will be included and divided into two aspects. On the one hand, the perception of meritocracy, i.e., the extent to which efforts and abilities are perceived to be rewarded in the country (Andersen, Lue Kessing, and Østergaard 2021; Castillo et al. 2019; Mijs 2019) and, on the other hand, preferences for meritocracy, i.e., the extent to which meritocracy is desired in society (Castillo et al. 2023). Thus, the following hypotheses are proposed:

- H1: Students with a higher perception of meritocracy in school will have a lower preference for redistribution.
- H2: Students with a higher perception of meritocracy in society will have a lower preference for redistribution.
- H3: Students with a higher preference for meritocracy in society will have a lower preference for redistribution.

Finally, research has shown that younger children tend to prefer equality, while older children begin to accept inequality if it is justified by merit (Almås et al. 2010; Baumard, Mascaro, and Chevallier 2012). Therefore, differences in preferences for redistribution are expected depending on the educational level (primary or secondary) as well as a change over time (2023-2024). Thus, two additional hypotheses are proposed: H4: Secondary school students will have lower preferences for redistribution than primary school students. H5: As students advance in their schooling, preferences for redistribution are expected to decrease.

2- How will the crucial variables be operationalized?

State exactly how the variables specified in the hypothesis will be measured.

Our dependent variable is redistributive preferences, which are operationalized as follows:

- Preferences or support for public policies that reduce income differences between the rich and the poor. The question is: “Is it the government’s responsibility to reduce economic differences between people with high incomes and those with low incomes?” The response categories range from 1 to 4, where one indicates strongly disagree and four strongly agree.

Regarding meritocracy, there are two versions:

- Perception of social meritocracy: The perception of rewards based on effort and intelligence will be measured separately. The questions are: a) In Chile, people are rewarded for their effort; b) In Chile, people are rewarded for their intelligence and ability; and c) In Chile, everyone gets what they deserve. The response categories range from 1 to 4, where one indicates strongly disagree and four strongly agree.
- Perception of school meritocracy: The perception of the importance of effort and intelligence for obtaining good grades will be measured. The questions are: a) In this school, those who make an effort get good grades; b) In this school, those who are intelligent get good grades; and c) In this school, students get the grades they deserve. The response categories range from 1 to 4, where one indicates strongly disagree and four strongly agree.
- Preferences for meritocracy: The degree to which students believe meritocracy should operate based on effort and talent will be measured. The questions are: a) Those who make more effort should receive greater rewards than those who make less effort; b) Those who have more talent should receive greater rewards than those who have less

talent; and c) It is acceptable for more intelligent and/or talented people to earn more money, even if they require less effort to do so.

3- What is the source of the data included in the analyses?

Specify the source of the obtained data. Also provide information about the context of the data source and clarify whether the data has been previously published. In case of simulated data, provide information on how the data was generated.

The database corresponds to the “Education and Meritocracy” (EDUMER) panel survey conducted in Chile during 2023 and 2024. This study evaluated students from sixth grade and first year of high school from 9 schools in the Metropolitan Region. The total number of complete responses is 902 students.

4- How will this data be obtained?

Specify how the data will be requested or accessed. Clarify whether the data were already available and whether the dataset has been previously explored or analyzed.

The data from the first wave (2023) of the “Education and Meritocracy” (EDUMER) panel study are available. The second wave (2024) is currently being collected.

No previous studies have been conducted with these data except for descriptive analysis and evaluation of the applied experiment.

5- Are there any exclusion criteria for the data?

Specify whether there were any criteria for the exclusions of certain datasets, observations or time points

Cases with incomplete responses (missing data and/or NA) will be excluded from the sample. Additionally, using the R statistical package `responsePatterns`, it is possible to detect repetitive response patterns, which contributes to higher-quality research data (Gottfried et al. 2022). For example, cases where only the “1” option is chosen or patterns such as “1-2-3-4-1-2-3-4” are followed will be excluded.

6- What are the planned statistical analyses?

Specify the statistical model that will be used to analyze the data and describe the data pre-processing steps. Be as specific as possible and avoid ambiguity.

Before analyzing the data, the variables of interest will be recoded, and missing cases and atypical or problematic response patterns will be eliminated.

For data analysis, a univariate descriptive analysis will first be performed, followed by a bivariate (correlational) analysis, and finally, multiple linear regression models will be used.

7- What are the criteria for confirming and disconfirming the hypotheses?

Specify exactly how the hypothesis will be evaluated. Give specific criteria relevant to the used analytical model and framework (e.g., alpha-values, Bayes Factor, RMSEA).

Statistically significant effects at an alpha level of 0.05 ($p < 0.05$).

8- Have the analyses been validated on a subset of the data? If yes, please specify and provide the relevant files.

Indicate whether the proposed data-analyses have previously been validated on a subset of the data or a simulated dataset. If so, provide the data files and data syntax.

The analyses have not been validated.

9- What is known about the data that could be relevant for the tested hypotheses?

Please describe any prior knowledge that you have about the data set (e.g., the known mean of a variable) that is relevant for your research question.

Basic descriptive statistics of the variables (mean, mode, and frequencies) are known.

10- Please provide a brief timeline for the different steps in the preregistration.

Provide the (foreseen) dates for the different steps in this preregistration form.

- August-September: End of data collection for wave 2
- September-October: Consolidation of longitudinal database
- October-November: First draft

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