

Eliciting preferences for redistribution across domains: A study on wealth, education, and health

Lucía Macchia^{a,b,*} and Dan Ariely^{c*}

^a *Women and Public Policy Program, Harvard Kennedy School, Cambridge, MA, 02138, US.*

^b *Wellbeing Research Centre, University of Oxford, Oxford, OX1 3TD, UK.*

^c *Department of Psychology, Duke University, Durham, NC 27708, US.*

*To whom correspondence should be addressed:

Lucía Macchia, Women and Public Policy Program, Harvard Kennedy School, Cambridge, MA 02138, E-mail: lucia_macchia@hks.harvard.edu

Dan Ariely, Duke University, One Towerview Road, Durham, NC 27708, E-mail: dandan@duke.edu

Abstract

People's preferences for redistribution are a key component of redistributive policy design, yet how to elicit these preferences is still a matter of debate. We recruited a nationally representative sample of more than 5,000 US respondents. We used an approach based on principles of justice to elicit people's preferences for redistribution across different domains. We compared people's preferences for the distribution of wealth, good educational resources, and good health status. We found that people have different preferences across domains: they accept higher inequality in wealth whereas they prefer more equal distributions in education and health. These preferences are consistent across different demographic groups. We discuss policymaking implications: when designing redistributive policies, policymakers should take this approach into account to trigger more favourable reactions to such policies.

Keywords: inequality, wealth, income, education, health.

In the last decades, wealth inequality has been unceasingly on the rise (Davies, Sandstrom, Shorrocks, & Wolf, 2009; Piketty, Saez, & Zucman, 2018). For instance, in the United States, the top decile of income holders owns around 50% of the wealth (Pfeffer, Danziger, & Schoeni, 2013). Key resources such as good education and good health are also unequally distributed. In the last 20 years, the gap in college completion between the rich and the poor increased by 50% (Bailey & Dynarski, 2011) and high-income US residents between 73 and 83 years old reported better health status than their low-income counterparts (United States Government Accountability Office, 2019).

How these resources should be distributed is a question that has been at the centre of policymaking debates. People's perceptions and preferences for redistribution are key elements of redistributive policy design as they influence people's reactions to redistributive policies (e.g., tax evasion). However, revealing people's preferences has been one of the most important challenges that researchers have had (e.g., Charness & Rabin, 2002; Henrich et al., 2001). The first goal of this study is to elicit preferences for the distribution of resources using an approach that is based on principles of justice.

A large literature has explored citizens' perceptions and preferences for redistribution in society (e.g., Alesina & Angeletos, 2005; Cruces, Perez-Truglia, & Tetaz, 2013; Norton & Ariely, 2011). However, these studies have focused on only one domain, wealth, leaving other important resources aside (see Starmans, Sheskin, & Bloom, 2017). The second goal of this study is to understand people's preferences for redistribution across different domains. We compare people's perceptions (i.e., estimates) and preferences (i.e., ideals) for the distributions of wealth, education, and health at the same time.

Theoretical background

The philosopher John Rawls (1971) argued that people tend to choose policies that would allow them to pursue their personal interests. In order to create a just society, Rawls developed a thought experiment to elicit policy preferences that would leave people's self-interest behind. In this experiment, participants would be asked to design the society they wanted to live in from behind a "veil of ignorance": people would not know which ethnicity, social status, gender, and other characteristics they would have in the society they designed. As participants could end up in the worst position, they would choose policies that minimize their personal risks and that promote equal outcomes for all groups. By using this thought experiment, people tend to accept policies as just because they are made under equal conditions free from bias towards certain groups even if these policies go against people's self-interest and beliefs about justice. The "veil of ignorance" is based on principles of justice that guarantee equal rights, liberties, and opportunities for all citizens.

According to Rawls' Theory of Justice (1971), asking people how they would distribute resources in society could reveal self-serving preferences in that people may assign more resources to the income quintile they belong to. In this study, we used Rawls' "veil of ignorance" to overcome this limitation and to elicit preferences for redistribution that would promote social justice.

Previous research on preferences for redistribution

People's beliefs and preferences for income redistribution were extensively explored across the social sciences. Norton and Ariely (2011) presented 5,522 US residents with three pie charts that depicted different levels of income inequality, namely perfect equality, low inequality, and high inequality, and found that people preferred a low level of income inequality but not perfect equality. The authors also asked respondents to estimate the

distribution of wealth in the United States and to determine their ideal distribution of wealth using Rawls' "veil of ignorance." The study found that people estimated the distribution of wealth to be more equal than the actual US distribution and desired a more equal distribution than their estimated distribution. Other studies also used Rawls' "veil of ignorance" to explore people's preferences for inequality (see Inoue, Zenkyo, & Sakamoto, 2020 for an extensive review). In particular, Mitchell et al (2003) asked participants to evaluate the fairness of the distribution of wealth in hypothetical societies. Critically, the authors asked participants to imagine that they were not members of these societies. The study found that participants were more tolerant of inequality when meritocracy increased and that liberal individuals were more concerned about equality than conservative individuals.

Using another type of questions, Cruces et al., (2013) asked respondents from 1,100 households from Argentina to indicate how many households had lower income and found that people overestimated their position in the income distribution (i.e., they thought they were richer). Then, respondents were informed about their actual relative position in the income distribution and asked whether they believed that the government should help poor people by giving them money. Those who learned that they were poorer preferred greater redistribution of income. Kelley and Evans (1993) demonstrated that preferences for pay inequality were connected to personal characteristics: older, higher socioeconomic status, and conservative individuals preferred higher pay for elite occupations than did younger, lower socioeconomic status, and liberal individuals. In a related study, Osberg and Smeeding (2006) found that attitudes towards inequality were more polarized in the United States than in other countries and that Americans were less concerned about economic inequality than citizens from other nations.

Large-scale surveys also include questions that attempt to elicit people's preferences for the distribution of income. For instance, the Pew Research Center asks respondents

whether they think the government should reduce poverty (see Piff et al., 2020). Similarly, the US General Social Survey asks people whether they think the government should reduce the gap between the rich and the poor (see McCall, Burk, Laperrière, & Richeson, 2017). Other research has used questions about people's agreement with the creation of tax brackets for high incomes (see Chow & Galak, 2012).

Previous research has also attempted to elicit people's preferences for the distribution of educational resources and health-related services by asking respondents about their beliefs about government spending. Using data from the General Social Survey and the International Social Survey Programme, McCall and Kenworthy (2009) found that when Americans were concerned with income inequality, they supported government spending in education (see also McCall, 2013). In a large survey of eight Western countries, Busemeyer et al., (2018) asked people about their preferences for education policy and found that support for education spending decreased with income and a right-wing political ideology. Savani and Rattan (2012) asked people to indicate their support for policies aimed at distributing educational resources more equally between the rich and the poor. The authors found that those who believed that life outcomes are the result of personal choices were less likely to support policies that aimed to even the distribution of educational resources in society.

People also prefer higher government spending on health-related services such as healthcare. Wendt et al., (2010) found that, in Europe, people were less satisfied with the healthcare system in countries with lower levels of government spending. van Oorschot (2000) found that people based their preferences for welfare spending (e.g., healthcare, unemployment benefits) on deservingness criteria: those who are perceived as more deserving (e.g., the elderly) should be the target of welfare spending. In a sample of 22 European countries, Sørensen (2013) found that preferences for education and healthcare

spending varied over the life-cycle: young people favoured spending on education whereas the elderly favoured healthcare spending.

This previous work has explored people's preferences for the distribution of wealth and government spending on education and health separately and has shown how these preferences were related to sociodemographic characteristics, such as age, income, and political orientation. The present research explores people's preferences for the distribution of wealth, education, and health at the same time regardless of people's characteristics and position in society.

Method

Data

Through Survey Sampling International (surveysampling.com), we recruited a nationally representative online sample of more than 5,000 US respondents.¹ We conducted three surveys in March 2015. 2,804 respondents took a survey that reflected respondents' estimated and ideal distributions of wealth (mean age between 35-44 years old, 54% female, mean income between \$25,001-50,000, 42% Democrats). 79 respondents failed the attention check which consisted of the following question "How many fatal heart attacks did you have in the last year?" respondents could answer 0 (correct answer), 1, 2, or 3 or more. Thus, the final sample of the wealth survey was 2,724.

1,264 respondents took a survey that reflected respondents' *estimated* distributions of good educational resources and good health status (mean age between 35-44 years old, 54% female, mean income between \$25,001-50,000, 43% Democrats) and 1,139 respondents took

¹ We implemented the sampling approach used by Survey Sampling International which was not stratified. US population statistics at the time of the survey were as follows: mean age between 35-44 years old, 51% female, mean income \$47,846 (U.S. Census Bureau, 2015), and 32% Democrats (Pew Research Center, 2015). We conducted different surveys to maximize responses by running shorter surveys. All three surveys were conducted at the same time which makes responses comparable.

a survey that reflected respondents' *ideal* distributions of good educational resources and good health status (mean age between 35-44 years old, 55% female, mean income between \$25,001-50,000, 46% Democrats). All respondents provided complete answers in these two surveys.

Procedure

First, we asked people to estimate the distribution of wealth, education, and health across *income* quintiles in the United States (i.e., 20% (poorest), 40%, 60%, 80%, 100% (wealthiest)). Second, we elicited people's preferences for the distribution of these resources across income quintiles using Rawls' "veil of ignorance." We asked respondents to imagine that they were joining a nation and that their place in the income distribution would be randomly assigned. Then, we asked them to indicate how they would distribute wealth, good educational resources, and good health status across *income* quintiles considering that they would be joining a country at a random income level. To ensure that respondents were familiar with how distributions of resources work, we presented them with a practice task and provided them with extreme examples of perfectly equal and unequal distributions across five income levels. The practice task was included in all the surveys.

We also presented respondents with a definition of each domain. At the beginning of the wealth survey, we presented participants with the following paragraph: "*Wealth, also known as net worth, is defined as the total value of everything someone owns minus any debt that he or she owes. A person's net worth includes his or her bank account savings plus the value of other things such as property, stocks, bonds, art, collections, etc., minus the value of things like loans and mortgages.*" Participants were asked to determine the percentage of wealth that each income quintile owned and should own. To avoid non-monotonous distributions of wealth we included the following sentence in the instructions "*Please*

remember that a lower percentile group cannot have a larger percentage of wealth than any of the groups above it.”

Respondents read the following definition of educational resources “*A central component of education is access to appropriate resources that foster learning. While education is primarily the function of schools, it is also enriched by access to places including libraries and museums, resources including books, calculators, and computers, and social networks including tutors, mentors, and groups or clubs.*” Respondents were presented with the actual percentage of the population who had access to good educational resources. Then, they were asked to estimate the percentage of good educational resources each income quintile in the United States had and to indicate how they would distribute good educational resources across income quintiles in an imaginary country.

Good health status has been defined as “a state of complete physical, mental, and social well-being” (i.e., being healthy) (World Health Organization, 2020). Following this definition, we measured good health status by asking respondents to think about the percentage of citizens who were healthy. Respondents read the following: “*A national survey about health asked respondents to assess their own (or their children’s) health status (with the choices Excellent, Very Good, Good, Fair, or Poor). Respondents who answered using the top two choices (Excellent and Very Good) are the most likely to be healthy.*”

Respondents in our survey were presented with the actual percentage of citizens who were healthy². Then, they were asked to estimate the percentage of healthy people in each income quintile in the United States and to indicate how they would distribute the percentage of people who were healthy across income quintiles in an imaginary country.

²We examined how respondents distributed good educational resources and the percentage of people who were healthy across different age groups for which information about the actual percentage of people who could get access to good educational resources and were healthy was provided. Due to the consensus that we observed across recipients of different age groups, we decided to use the *overall* distributions for the main analyses. The estimated and ideal distributions of good educational resources and the percentage of people who were healthy across age groups as well as survey materials can be found in the Appendix. Data and code for replication are available through the Open Science Framework (OSF) https://osf.io/g5nvj/?view_only=a292694e00e64169b77a7e01dc027f06 This work was not preregistered.

Given that respondents of different demographic groups may have different views with regard to the distribution of resources in society (McCarty, Poole, & Rosenthal, 2006), we explored whether respondents' perceptions and preferences varied across gender, income level, and political orientation. The consensus among respondents of different demographic groups could signal the potential of Rawls' "veil of ignorance" to reveal people's preferences for the distribution of resources. The content of the surveys can be found in the Appendix.

Statistical methods

We compared the estimated and ideal distributions across domains from three different perspectives. First, we calculated the individual Gini Index of each respondent in each domain. The Gini Index is a commonly used measure of inequality that ranges between 0 and 1³. Scores closer to 1 denote higher inequality. Then, to take a closer look at the extremes of the income distribution, we explored the percentage of wealth, good educational resources, and healthy people that respondents allocated to the top and to the bottom 20%.

We used t-tests to compare the estimated and ideal distributions within each domain. This statistical tool allowed us to examine whether the *estimated* distribution of wealth was significantly different from the *ideal* distribution of wealth. We repeated the same procedure with the other two domains, namely, education and health. Given that the same participants took the survey about estimated and ideal distributions of wealth we conducted paired t-test to compare these two distributions. However, because data on the estimated distributions of education and health were collected in one survey and data on ideal distributions of education and health were collected in a different survey, we conducted unpaired t-test to compare the estimated distribution of education to the ideal distribution of education and the estimated

³ The Gini Index of health and education contains negative values as non-monotonous distributions were allowed in these two domains as people may wish to assign more health and education to the poorer quintiles than to the richer quintiles. The distributions of all measures can be found in the Appendix.

distribution of health to the ideal distribution of health. The same type of tests was conducted using the Gini Index of each distribution, the percentage of resources allocated to the top 20%, and the percentage of resources allocated to the bottom 20% (Table 1).

To understand how the estimated (and ideal) distributions differed across the three domains we also used t-test. In this case, we used unpaired t-tests to compare the estimated distribution of wealth to the estimated distributions of health and education and paired t-test to compare the estimated distribution of education to the estimated distribution of health. We repeated the same procedure with the ideal distributions of the three domains. The same type of tests was conducted using the Gini Index of each distribution, the percentage of resources allocated to the top 20%, and the percentage of resources allocated to the bottom 20% (Table 2).

Finally, to explore whether there were differences in the estimated and ideal distribution of the three domains among demographic groups we used regression analyses. These models used the Gini Index as the dependent variable and different demographic characteristics as independent variables (Table 3).

Results

Figure 1 shows the estimated and ideal distributions of wealth, good educational resources, and good health status. Respondents estimated the distribution of wealth, good educational resources, and good health status in the United States to be unequal. Respondents believed that the richest quintile held 50% of the wealth and that the poorest quintile held 6% of the wealth. Respondents created an ideal distribution of wealth more equitable allocating 38% of wealth to the richest quintile. However, this ideal distribution reflected respondents' preference for some inequality: respondents allocated only 10% of wealth to the poorest quintile. Moving away from the wealth domain, respondents thought that the richest quintile

owned 29.77% of good educational resources and had 24% of healthy people. Similarly, respondents estimated that the poorest quintile held 11.52% of good educational resources and had 14.41% of healthy people. However, respondents overall created almost perfectly egalitarian distributions of good educational resources and good health status: respondents allocated 22.62% of good educational resources and 21.63% of healthy people to the richest quintile and 17.48% of good educational resources and 16.94% of healthy people to the poorest quintile. The ideal distributions in these two domains reflected more equality than the ideal distribution of wealth.

[Figure 1]

Estimated vs ideal distributions of the same domain

T-tests were used to explore whether the estimated distributions were significantly different from the ideal distributions within the three domains, namely, wealth, education, and health. Results showed that people desired distributions across all domains that were more equal than they estimated the distributions in the United States to be. Across all domains, the mean Gini Index of the estimated distributions was significantly larger than the mean Gini Index of the ideal distributions (Table 1, Panel A). As expected, respondents estimated that the top 20% of the income distribution had a *higher* percentage of wealth, good educational resources, and healthy people than they thought the top 20% should have (Table 1, Panel B). Respondents estimated that the bottom 20% of the income distribution had a *lower* percentage of wealth, good educational resources, and healthy people than they thought the bottom 20% should have (Table 1, Panel C).

[Table 1]

Estimated vs ideal distributions across domains

Additional t-tests were conducted to examine whether the estimated and ideal distributions were significantly different across the three domains. The statistical results presented in Table 2 show that, represented by the Gini Index, the estimated distribution of wealth was significantly more unequal than the estimated distribution of good educational resources and good health status. Similarly, the ideal distribution of wealth was significantly more unequal than the ideal distribution of education and health. In addition, respondents estimated good educational resources to be more unequally distributed than good health status whereas the ideal distributions in these two domains did not differ significantly from each other (Table 2, Panel A).

The percentage of resources that respondents allocated to the rich (top 20%) both in the estimated and ideal distributions differed significantly across domains. Specifically, respondents believed that the top 20% had and should have significantly *more* wealth than education and health. Respondents estimated that in the top 20% the level of access to good educational resources was greater than the percentage of healthy people. The ideal percentages of education and health in the top 20% also differed significantly from each other although the effect size was small ($d = 0.12$; Table 2, Panel B).

We then explored the percentage of wealth, education, and health that respondents believed that the poor (bottom 20%) had and should have. We found that the estimated and ideal percentages differed significantly across domains. Respondents believed that the bottom 20% had and should have significantly *less* wealth than education and health. Respondents estimated that in the bottom 20% the percentage of healthy people was greater than the percentage of good educational resources. The ideal allocation of good educational resources

and good health status to the poor also differed significantly from each other although the size of this effect was small ($d = 0.07$; Table 2, Panel C).

[Table 2]

Consensus among demographic groups

Table 3 shows regression analyses that explore whether there are differences in the estimated and ideal distribution of the three domains among demographic groups. Men and higher-income individuals estimated that the distribution of wealth was more unequal than did women and lower-income individuals. However, the ideal distribution of wealth did not differ significantly between men and women and higher-income people and republicans desired more unequal distributions of wealth than did lower-income people and democrats. Men estimated good educational resources to be more equally distributed than did women and republicans desired more unequal distributions of good educational resources than did democrats. Women and higher-income individuals estimated that the distribution of good health status was more equal than did men and lower-income individuals. The ideal distributions of good health status did not differ significantly across demographic groups.

[Table 3]

Notwithstanding these expected differences (see McCall & Kenworthy, 2009; Napier & Jost, 2008), there was more consensus than disagreement among these demographic groups. Figure 2 shows the estimated and ideal distributions of wealth, good educational resources, and good health status broken up by different demographic groups. Across the three domains, respondents of all demographic groups desired distributions that were more

equal than they estimated the distributions in the United States to be. Despite desiring more equal distributions all groups preferred some inequality.

[Figure 2]

Discussion and conclusions

To elicit people's preferences for the distribution of resources in society we used an approach that is based on principles of justice. Following Rawls' method to design a just society, we used the "veil of ignorance" and asked people to distribute resources across five income quintiles considering that their place in the income distribution would be randomly assigned. We explored people's perceptions and preferences for the distribution of wealth, education, and health with a nationally representative sample of more than 5,000 US respondents. We found that people have different preferences across these three domains: People accept more inequality in wealth than in education and health and desire distributions of good educational resources and good health status that are almost perfectly egalitarian. These findings shed new light on how redistributive policies could be designed and highlight psychological and behavioural implications that policymakers should take into account to enhance policy support.

Our study shows high consensus among respondents of different demographic groups. This finding suggests that Rawls' "veil of ignorance" (Rawls, 1971) could be a sensible approach to elicit the way people would design the society they live in (see also Huang, Greene, & Bazerman, 2019). Policymakers could implement this approach at the moment of designing redistributive policies. This study also suggests that researchers and policymakers should explore people's preferences for the distribution of resources other than wealth to avoid generalizing people's preferences for the distribution of wealth to other resources.

Domains could be examined separately or classified according to different criteria, for instance, the level of personal responsibility (i.e., how much influence one has in getting access to the resource). Resources such as transport, clean water, and clean air may involve less personal responsibility whereas employment may involve a higher level of personal responsibility. People may prefer more equal distributions when the level of responsibility is low.

Although the main goal of this study is far from understanding why people prefer one distribution over another, we discuss some possibilities. Respondents did not create equal distributions of wealth even when they knew that they had an equal chance of ending up in the richest and poorest quintile. The optimistic beliefs about upward social mobility that US citizens have (Alesina, Di Tella, & MacCulloch, 2004) and the lack of situational attributions for poverty (the idea that poverty depends on forces beyond one's control) (Piff et al., 2020) may drive people's preferences for inequality in wealth. System justification and the American Dream ideology could further help explain why people prefer inequality in the wealth domain: it may seem fair to assign more wealth to the highest quintile, those who worked hard to be at the top of the income distribution (Jost & Hunyady, 2005; Savani & Rattan, 2012; see also Jost, 2017; Jost, Banaji, & Nosek, 2004). In contrast, people endorse more egalitarian preferences with regard to good educational resources and good health status by creating almost perfectly equal distributions in these two domains. The notion of equality of opportunities may motivate these preferences. Another possibility is that in capitalistic societies like the one explored here income inequality necessarily exists. However, the distribution of good education and health benefits is likely to be a policy choice. Policymakers can provide every citizen with the same amount of good educational resources and health benefits regardless of their income. This plausible scenario may help explain why people prefer more inequality in wealth than in education and health.

The results of this study also have psychological and behavioural implications. Wealth inequality, a domain in which people prefer some inequality, has detrimental effects on people's well-being (Wilkinson & Pickett, 2017). Inequality in education and health, domains in which people prefer more egalitarian distributions, may have even stronger negative consequences on people's well-being. Policymakers should consider people's preferences across domains when informing citizens about the impact of their redistributive policies. Informing people that their financial resources will improve people's educational opportunities and health status may increase acceptance of redistributive policies and encourage positive reactions to such policies (e.g., tax compliance). Future research should explore these possibilities.

One potential criticism of this research is that our measure of good health status may reflect various practical implications. For example, from a policy perspective, good health status (i.e., being healthy) may be translated into access to quality healthcare, and the number of hospitals in the city where people live (see Jordan, 2013 for a discussion about the measurement of health-related policy outcomes). Another concern may be that the use of different questions to elicit people's preferences for redistribution may yield different results (see Swan, Chambers, Heesacker, & Nero, 2017). Future research should test the research questions explored here using alternative measures.

Despite these limitations, our study contributes to the debate on how to elicit people's preferences for redistribution and how to design redistributive policies. Policymakers should take the findings of this research into account to increase acceptance of their policies.

References

- Alesina, A., & Angeletos, G. (2005). Fairness and redistribution. *The American Economic Review*, 95(4).
- Alesina, Alberto, Di Tella, R., & MacCulloch, R. (2004). Inequality and happiness: Are Europeans and Americans different? *Journal of Public Economics*, 88, 2009–2042.
<https://doi.org/10.1016/j.jpubeco.2003.07.006>
- Bailey, M. J., & Dynarski, S. M. (2011). Gains and gaps: Changing inequality in U.S. college entry and completion. In G. J. Duncan & R. J. Murnane (Eds.), *Whither Opportunity? Rising Inequality and the Uncertain Life Chances of Low-Income Children*. Russell Sage Foundation.
- Bussemeyer, M. R., Lergetporer, P., & Woessmann, L. (2018). Public opinion and the political economy of educational reforms: A survey. *European Journal of Political Economy*, 53(August 2017), 161–185. <https://doi.org/10.1016/j.ejpoleco.2017.08.002>
- Charness, G., & Rabin, M. (2002). Understanding social preferences with simple tests. *The Quarterly Journal of Economics*, 117(3), 817–869.
<https://doi.org/10.1162/003355302760193904>
- Chow, R. M., & Galak, J. (2012). The effect of inequality frames on support for redistributive tax policies. *Psychological Science*, 23(12), 1467–1469.
<https://doi.org/10.1177/0956797612450035>
- Cruces, G., Perez-Truglia, R., & Tetaz, M. (2013). Biased perceptions of income distribution and preferences for redistribution: Evidence from a survey experiment. *Journal of Public Economics*, 98, 100–112. <https://doi.org/10.1016/j.jpubeco.2012.10.009>
- Davies, J. ., Sandstrom, S., Shorrocks, A., & Wolf, E. (2009). The global pattern of household wealth. *Journal of International Development*, 21, 1111–1124.
<https://doi.org/10.1002/jid>

- Henrich, J., Boyd, R., Bowles, S., Camerer, C., Fehr, E., Gintis, H., & McElreath, R. (2001). In search of homo economicus: Behavioral experiments in 15 small-scale societies. *American Economic Review*, *91*(2), 73–78. <https://doi.org/10.1257/aer.91.2.73>
- Huang, K., Greene, J. D., & Bazerman, M. (2019). Veil-of-ignorance reasoning favors the greater good. *Proceedings of the National Academy of Sciences of the United States of America*, *116*, 23989–23995.
- Inoue, A., Zenkyo, M., & Sakamoto, H. (2020). Making the Veil of Ignorance work: Evidence from survey experiments. *Oxford Studies in Experimental Philosophy*, *4*.
- Jordan, J. (2013). Policy feedback and support for the welfare state. *Journal of European Social Policy*, *23*(2), 134–148. <https://doi.org/10.1177/0958928712471224>
- Jost, J. T. (2017). Ideological asymmetries and the essence of Political Psychology. *Political Psychology*, *38*(2), 167–208. <https://doi.org/10.1111/pops.12407>
- Jost, J. T., Banaji, M. R., & Nosek, B. A. (2004). A decade of system justification theory: Accumulated evidence of conscious and unconscious bolstering of the status quo. *Political Psychology*, *25*(6), 881–919. <https://doi.org/10.1111/j.1467-9221.2004.00402.x>
- Jost, J. T., & Hunyady, O. (2005). Antecedents and consequences of system-justifying ideologies. *Current Directions in Psychological Science*, *14*(5), 260–265.
- Kelley, J., & Evans, M. D. R. (1993). The legitimation of inequality: Occupational earnings in nine nations. *American Journal of Sociology*, *99*(1), 75–125.
- McCall, L. (2013). *The undeserving rich: American beliefs about inequality, opportunity, and redistribution*. Cambridge Univ Press, Cambridge, UK.
- McCall, L., Burk, D., Laperrière, M., & Richeson, J. A. (2017). Exposure to rising inequality shapes Americans' opportunity beliefs and policy support. *Proceedings of the National Academy of Sciences*, *114*(36), 201706253. <https://doi.org/10.1073/pnas.1706253114>
- McCall, L., & Kenworthy, L. (2009). Americans' social policy preferences in the era of

- rising inequality. *Perspectives on Politics*, 7(3), 459–484.
<https://doi.org/10.1017/S1537592709990818>
- McCarty, N., Poole, K. T., & Rosenthal, H. (2006). *Polarized America: The dance of ideology and unequal riches*. Cambridge, MA: MIT Press.
- Mitchell, G., Tetlock, P. E., Newman, D. G., & Lerner, J. S. (2003). Experiments behind the Veil: Structural influences on judgments of social justice. *Political Psychology*, 24(3), 519–547.
- Napier, J. L., & Jost, J. T. (2008). Why are conservatives happier than liberals? *Psychological Science*, 19(6), 565–573.
<https://doi.org/http://www.jstor.org/stable/40064955>
- Norton, M. I., & Ariely, D. (2011). Building a better America — One wealth quintile at a time. *Perspectives on Psychological Science*, 6(1), 9–12.
<https://doi.org/10.1177/1745691610393524>
- Osberg, L., & Smeeding, T. (2006). “Fair” inequality? Attitudes toward pay differentials: The United States in comparative perspective. *American Sociological Review*, 71, 450–473.
<https://doi.org/10.4324/9780203881972>
- Pew Research Center. (2015). *A deep dive into party affiliation*.
- Pfeffer, F. T., Danziger, S., & Schoeni, R. F. (2013). Wealth disparities before and after the Great Recession. *The Annals of the American Academy of Political and Social Science*, 650, 98–123. <https://doi.org/10.1177/0002716213497452>
- Piff, P. K., Wiwad, D., Robinson, A. R., Aknin, L. B., Mercier, B., & Shariff, A. (2020). Shifting attributions for poverty motivates opposition to inequality and enhances egalitarianism. *Nature Human Behaviour*. <https://doi.org/10.1038/s41562-020-0835-8>
- Piketty, T., Saez, E., & Zucman, G. (2018). Distributional national accounts: methods and estimates for the United States. *The Quarterly Journal of Economics*, 133(2), 553–609.

<https://doi.org/10.1093/qje/qjs020>.Advance

Rawls, J. (1971). *A theory of justice*. Cambridge, MA: Harvard University Press.

Savani, K., & Rattan, A. (2012). A choice mind-set increases the acceptance and maintenance of wealth inequality. *Psychological Science*, *23*(7), 796–804.

<https://doi.org/10.1177/0956797611434540>

Sørensen, R. J. (2013). Does aging affect preferences for welfare spending? A study of peoples' spending preferences in 22 countries, 1985-2006. *European Journal of Political Economy*, *29*(1), 259–271. <https://doi.org/10.1016/j.ejpoleco.2012.09.004>

Starmans, C., Sheskin, M., & Bloom, P. (2017). Why people prefer unequal societies. *Nature Human Behaviour*, *1*(4), 1–7. <https://doi.org/10.1038/s41562-017-0082>

Swan, L. K., Chambers, J. R., Heesacker, M., & Nero, S. S. (2017). *How should we measure Americans' perceptions of socio-economic mobility?* *12*(5), 507–515.

U.S. Census Bureau. (2015). American Community Survey. 2011—2015 ACS 5-Year Data Profile. Retrieved from <https://www.census.gov/acs/www/data/data-tables-and-tools/data-profiles/2015>

United States Government Accountability Office. (2019). *Income and wealth disparities continue through old age*. Retrieved from <https://www.gao.gov/assets/710/700836.pdf>

van Oorschot, W. (2000). Who should get what, and why? On deservingness criteria and the conditionality of solidarity among the public. *Policy and Politics*, *28*(1), 33–48.

<https://doi.org/10.1332/0305573002500811>

Wendt, C., Kohl, J., Mischke, M., & Pfeifer, M. (2010). How do Europeans perceive their healthcare system patterns of satisfaction and preference for state involvement in the field of healthcare. *European Sociological Review*, *26*(2), 177–192.

<https://doi.org/10.1093/esr/jcp014>

Wilkinson, R. G., & Pickett, K. E. (2017). *The enemy between us: The psychological and*

social costs of inequality. *European Journal of Social Psychology*, 47(1), 11–24.

<https://doi.org/10.1002/ejsp.2275>

World Health Organization. (2020). Constitution. Retrieved August 19, 2020, from

<https://www.who.int/about/who-we-are/constitution>

Additional Information

Competing Interests: The authors declare no competing interests.

Materials, data, and code availability: We have reported all measures, conditions, data exclusions, and sensitivity analyses. Survey materials can be found in the Appendix. Data and code for replication are available through the Open Science Framework (OSF)

https://osf.io/g5nvj/?view_only=a292694e00e64169b77a7e01dc027f06

Authors bios

Lucía Macchia, PhD, is a postdoctoral Research Fellow at the Women and Public Policy Program at the Harvard Kennedy School and a Research Affiliate at the Wellbeing Research Centre at the University of Oxford.

Dan Ariely, PhD, is a Professor at Duke University. He is the author of *Predictably Irrational*.

Tables and figures

Figure 1: Estimated and ideal distributions of wealth, good educational resources, and good health status.

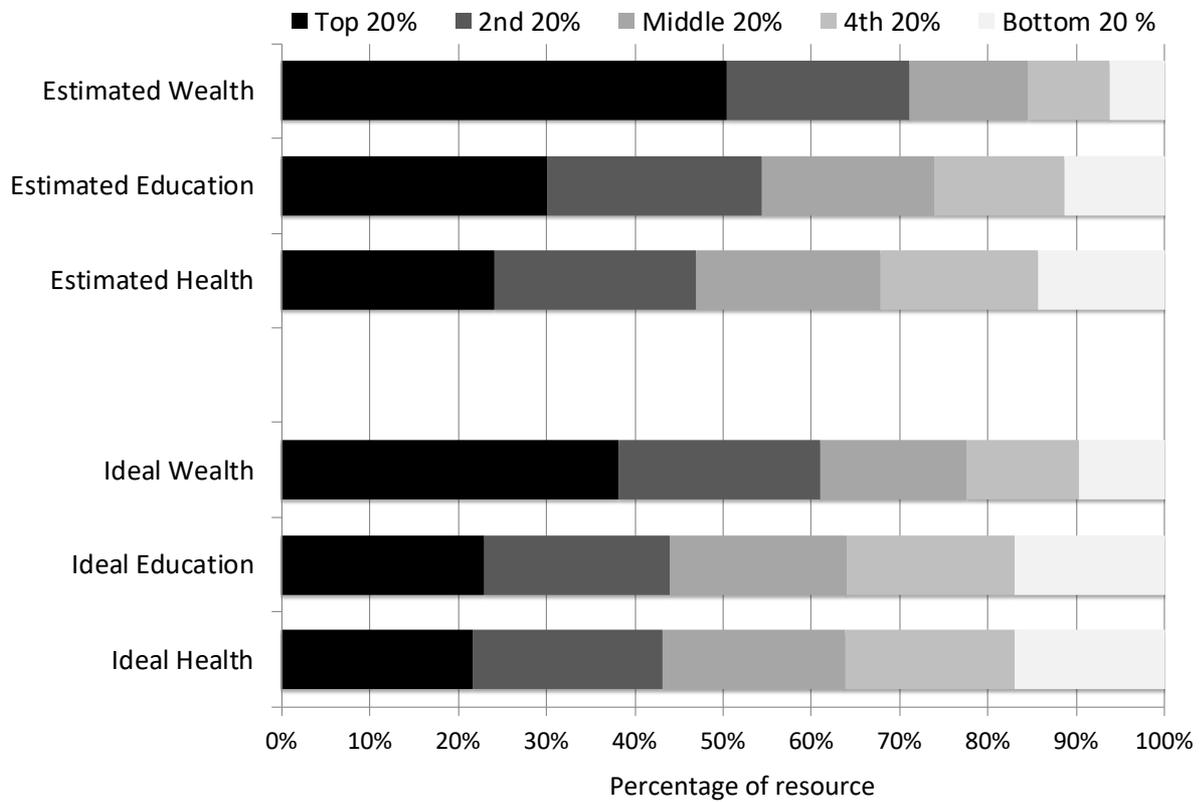


Table 1: Comparison of estimated and ideal distributions of the same domain.

<i>Panel A: Gini Index</i>			
	Mean estimated	Mean ideal	t-test
Wealth	0.399	0.268	$t(2723) = 29.489, p < .001; d = 0.63$
Education	0.183	0.05	$t(2292.3) = 18.739, p < .001; d = 0.77$
Health	0.096	0.047	$t(2275.3) = 10.994, p < .001; d = 0.45$

<i>Panel B: % of resources allocated to the top 20%</i>			
	Mean estimated	Mean ideal	t-test
Wealth	50.37	38.25	$t(2723) = 29.589, p < .001; d = 0.62$
Education [±]	29.77	22.62	$t(2401) = 18.711, p < .001; d = 0.76$
Health	23.99	21.63	$t(2289.4) = 10.057, p < .001; d = 0.41$

<i>Panel C: % of resources allocated to bottom 20%</i>			
	Mean estimated	Mean ideal	t-test
Wealth	6.27	9.69	$t(2723) = -24.846, p < .001; d = 0.55$
Education	11.52	17.48	$t(2250.8) = -18.194, p < .001; d = 0.75$
Health	14.41	16.94	$t(2297) = -11.117, p < .001; d = 0.46$

Note: Wealth estimated vs ideal: Paired t-test. Education estimated vs ideal: Unpaired t-test. Health estimated vs ideal: Unpaired t-test.

[±]T-test accounted for equality of variances across the two distributions that were compared. All other t-tests accounted for inequality of variances as the variance of the distributions that were compared differed significantly from each other. These variances can be found in Table A.1 in the Appendix. *d* denotes the Cohen's *d* effect size.

Table 2: Comparison of estimated and ideal distributions across domains.

<i>Panel A: Gini Index</i>			
	Mean wealth	Mean education	Unpaired t-test
Estimated	0.399	0.183	$t(3111.4) = 35.343, p < .001; d = 1.09$
Ideal	0.268	0.05	$t(2346.8) = 32.78, p < .001; d = 1.11$
	Mean wealth	Mean health	Unpaired t-test
Estimated	0.399	0.096	$t(3977.2) = 60.947, p < .001; d = 1.65$
Ideal	0.268	0.047	$t(3483.3) = 42.562, p < .001; d = 1.22$
	Mean health	Mean education	Paired t-test
Estimated	0.096	0.183	$t(1263) = -27.945, p < .001; d = 0.64$
Ideal	0.047	0.05	$t(1138) = -0.820, p = .412; d = 0.021$
<i>Panel B: % of resources allocated to the top 20%</i>			
	Mean wealth	Mean education	Unpaired t-test
Estimated	50.37	29.77	$t(3970.7) = 43.106, p < .001; d = 1.14$
Ideal	38.25	22.62	$t(3611.6) = 35.354, p < .001; d = 0.99$
	Mean wealth	Mean health	Unpaired t-test
Estimated	50.37	23.99	$t(3395.1) = 61.275, p < .001; d = 1.49$
Ideal	38.25	21.63	$t(3755.9) = 43.423, p < .001; d = 1.09$
	Mean health	Mean education	Paired t-test
Estimated	23.99	29.77	$t(1263) = -32.518, p < .001; d = 0.77$
Ideal	21.63	22.62	$t(1138) = -4.677, p < .001; d = 0.12$
<i>Panel C: % of resources allocated to bottom 20%</i>			
	Mean wealth	Mean education	Unpaired t-test
Estimated	6.27	11.52	$t(2028.6) = -22.373, p < .001; d = 0.83$
Ideal	9.69	17.48	$t(1724.2) = -27.426, p < .001; d = 1.08$
	Mean wealth	Mean health	Unpaired t-test
Estimated	6.27	14.41	$t(2706.6) = -43.964, p < .001; d = 1.44$
Ideal	9.69	16.94	$t(5437.7) = -33.776, p < .001; d = 1.14$
	Mean health	Mean education	Paired t-test
Estimated	14.41	11.52	$t(1263) = 19.818, p < .001; d = 0.45$
Ideal	16.94	17.48	$t(1138) = -2.867, p = .004; d = 0.07$

Note: All t-tests accounted for inequality of variances as the variance of the distributions that were compared differed significantly from each other. These variances can be found in Table A.2 in the Appendix. d denotes the Cohen's d effect size.

Figure 2: Estimated and ideal distributions of wealth, good educational resources, and good health status of respondents of different demographic groups.

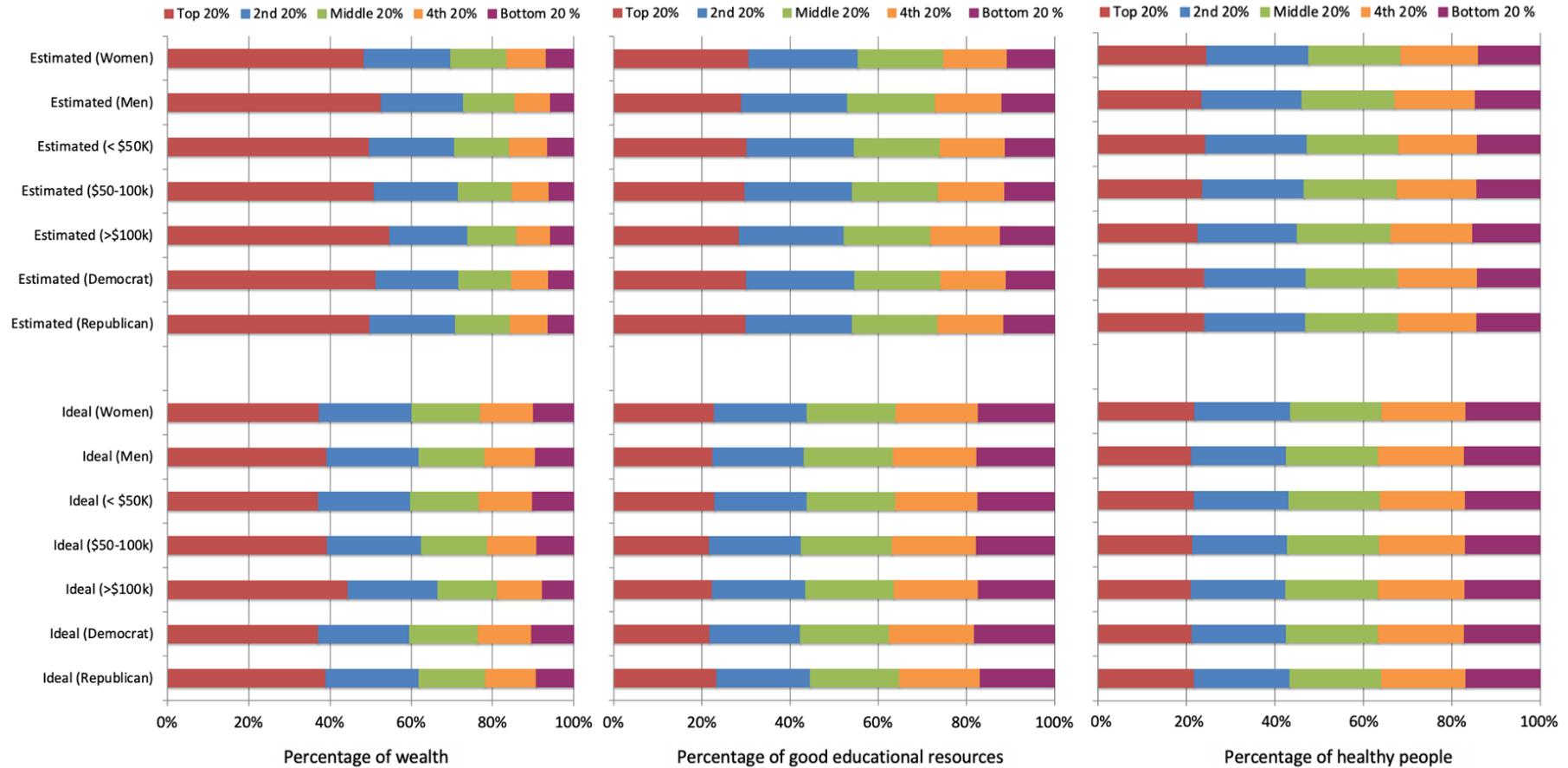


Table 3: Estimated and ideal distributions across demographic groups.

Dependent variable: Gini Index

	Wealth		Education		Health	
	Estimated	Ideal	Estimated	Ideal	Estimated	Ideal
Male (<i>Ref.: Female</i>)	0.038*** (0.008)	0.011 (0.008)	-0.027** (0.009)	-0.010 (0.011)	-0.015* (0.006)	-0.013 (0.007)
Personal income	0.005* (0.002)	0.013*** (0.002)	-0.004 (0.003)	-0.001 (0.003)	-0.005** (0.002)	0.001 (0.002)
Political orientation - Republican (<i>Ref.: Democrat</i>)	-0.013 (0.008)	0.025** (0.008)	-0.004 (0.009)	0.031** (0.011)	0.002 (0.006)	0.010 (0.007)
Constant	0.378*** (0.008)	0.218*** (0.008)	0.207*** (0.010)	0.040*** (0.011)	0.115*** (0.006)	0.045*** (0.007)
Observations	2,672	2,672	1,255	1,131	1,255	1,131
R ²	0.012	0.021	0.010	0.008	0.016	0.005

Note: *p<0.05; **p<0.01; ***p<0.001. Table shows Ordinary Least Squares coefficients and standard errors in parentheses.