Supplementary Appendix

"Ideology of Affluence: Rich Americans' Explanations for Inequality and Attitudes toward Redistribution"

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A1 Sampling Procedures

For our general population sample, we drew on YouGov's well-developed sampling and weighting procedure (Brick, 2011; Rivers, 2007), which has been shown to outperform other opt-in panel vendors (Kennedy et al., 2016). This procedure consists of three major steps: development of the sampling frame, quota sampling, and pre-processing based on matching. We relied on YouGov's standard in-house sampling frame, which contains information on gender, age, race, education, party identification, political ideology, and political interest. The demographic portion of the sampling frame is constructed by stratified sampling from the full 2010 American Community Survey, with selection within strata by weighted sampling with replacements. Data on voter registration status and turnout are matched to this frame using the November 2010 Current Population Survey. Data on political interest and party identification are then matched to this frame from the 2007 Pew Religious Life Survey. YouGov then quota sampled against this sampling frame. Finally, the matching pre-processing step selected from all the completed interviews (a number larger than the final sample size) the subset of cases most similar to the sociodemographic distribution of the sampling frame, based on propensity score matching.

For the affluent sample, we worked with YouGov to develop a custom sampling frame, based on the information on gender, age, race, and education of respondents in the 2015 ACS with more than \$350,000 in family income. We did not employ quota sampling because we sought to maximize the already-limited number of available respondents who satisfied our definition of affluent. However, YouGov did perform pre-processing based on matching against this custom sampling frame. YouGov also paid attention to geographic diversity, to avoid over-sampling from areas with high concentration of the affluent, such as New York or Silicon Valley.

A2 Quality of Self-Reported Financial Information

The quality of our data depends on the veracity of the economic and financial information provided by panelists to YouGov, particularly in our affluent sample. Eliciting information about personal finances has long been recognized as a sensitive topic in survey research (Tourangeau and Yan, 2007), prone to higher rates of item non-response (Riphahn and Serfling, 2005; Yan et al., 2010), and potentially greater measurement error than other non-sensitive topics (Moore and Welniak, 2000). However, we offer several reasons why we believe our self-reported financial data are trustworthy.

First, compared to other modes of interview, self-administered web-based questionnaires have been shown to decrease social desirability bias, reduce item nonresponse, and elicit more truthful and precise answers on sensitive questions (Denscombe, 2009; Hsu and McFall, 2015; Tourangeau and Yan, 2007). Second, repeated participation in surveys, as in the YouGov online panel, can reduce measurement error in general (Struminskaya, 2016), and for survey items capturing self-reported income in particular (Cantor, 2008), as respondents better trust the interview process. Hence, both the administration mode of our survey and the repeated interactions between our respondents and YouGov likely alleviate the most common issues associated with surveys relying on self-reported financial information.

Third, repeated responses to different surveys by the same panelists also enhanced our and YouGov's ability to monitor inconsistent responses to detect falsifiers. Indeed, we flagged several cases with suspicious response patterns in our survey; after investigating their response patterns

¹See: https://today.yougov.com/topics/finance/articles-reports/2016/05/13/pew-research-yougov

in prior surveys, YouGov replaced eleven observations among the affluent (2.4 percent) with new observations.

Fourth, together with YouGov, we used a rigorous procedure to screen the affluent respondents. Our questionnaire started with the same income and asset questions YouGov regularly asks of all panelists. (These questions are reproduced in Section A8.2 below; they were designed in an unfolding structure, with a pop-up for the seven highest categories, which tends to reduce item nonresponse; see Yan et al. 2010.) Among the affluent, only the respondents who provided the same information in our survey as in YouGov's records were allowed to complete the survey. While this likely eliminated some respondents with legitimate changes in income or assets over time, it also minimized measurement error by reducing the risk of intentional misreports.

A3 Comparison of Our Affluent Sample to Other Sources

A3.1 Coverage of Highly Affluent

Table A1 compares the coverage of the affluent in our survey to three well-known surveys conducted at a similar time: the 2016 American National Election Study (ANES), the 2016 Cooperative Congressional Election Study (CCES), and the 2016 General Social Survey (GSS).

Our survey is the only one that allows for distinguishing the very rich—those in the top 1% (above \$750,000 in family income)—from the rest. As we show in the article, this group often exhibits distinct beliefs and attitudes, even from the rest of the top 5%, the upper middle class, and particularly from the general population. Also, our survey contains a considerably larger sample of the affluent than either the ANES or the GSS. The CCES, on the other hand, contains a sizeable sample of respondents in the top 5% of the income distribution, owing to its large sample size in general. However, it does not contain any survey questions on respondents' attributions for success, drive to succeed, and IQ or questions on economic or social welfare policy of interest to us. The ANES and GSS similarly contain few items probing respondents' causal attributions.

A3.2 Financial Characteristics

Our sample is similar on important financial characteristics to the equivalently defined sample of affluent American households in the 2016 Survey of Consumer Finances. The SCF is the most detailed source of financial information on U.S. households, and it also includes a large oversample of the affluent. As shown in Figure A1, our sample has a reasonably similar distribution to that in the SCF of family income (for gross financial assets above \$2 million; see panel a), gross financial assets (for income above \$350,000; panel b), and liabilities (panel c), as well as a similar composition of the main sources of wealth (panel d).² The main discrepancies are that our sample contains more respondents reporting large gross financial assets, and fewer respondents reporting large family income. This is partly because respondents in our sample are on average older, with a somewhat higher share of affluent respondents with lower incomes and wealth derived from retirement accounts (that said, only a third of our respondents in the top 5% are retired).

 $^{^{2}}$ Our general population sample also shows similar distributions of these characteristics as the overall sample in the SCF.

A3.3 Geographic Coverage

Our affluent sample is also geographically diverse. The black circles in the upper panel of Figure A2 show the geographical location of each respondent in the affluent sample, based on zipcode information collected by YouGov. The lower panel shows the county-level average household income across the U.S., based on the data from the 2016 American Community Survey. Darker shades indicate counties with higher average household income. The two panels show that our affluent respondents are dispersed across the U.S. and not concentrated in a few geographic areas. Moreover, the affluent are drawn predominantly from higher-income counties, for example, San Mateo, Santa Clara, San Diego, or Orange County in California; Morris and Somerset in New Jersey; Palm Beach in Florida; Fairfeld in Connecticut; Montgomery County in Maryland; or Westchester and New York County (which includes Manhattan) in New York. Our sample also includes respondents from lower density areas or interior regions with average income above the national average, such as Hamilton County in Ohio, St. Louis in Missouri, Maricopa County in Arizona, Davidson in Tennessee, or Salt Lake County in Utah.

A3.4 Industry Coverage

Our affluent sample is also drawn from a variety of industries. Table A2 compares the industry breakdown in our affluent sample and in the 2016 Current Population Survey (CPS). The CPS, which is census-based, is the most detailed source of employment data for the U.S. population, including for the affluent.³ We use the industry categories reported in the CPS.⁴ Table A2 shows that the industry breakdown is quite similar between the two sources (the only noticeable differences being for public administration and IT).

A3.5 Political Characteristics

Our affluent sample is further similar on key political characteristics to samples of high-income respondents in other large-scale public opinion surveys discussed above. Table A3 compares the distribution of party ID, ideology, and several political attitudes among respondents with more than \$250,000 in family income in our sample to the distributions in comparable samples in the 2016 ANES and 2016 CCES. The upper panel shows that our sample has a similar share of Democrats and Republicans, liberals and conservatives as in the high-income samples in the ANES and CCES.⁵

The lower panel shows that our affluent respondents hold similar political attitudes based on reasonably comparable items in our survey and in the ANES and CCES (where applicable). Our

³The CPS only records household income, but not financial assets. For comparability, we therefore analyze the industry breakdown among top income earners in our survey, disregarding assets. Moreover, the income data in the CPS are top-coded. Rather than examining the industry breakdown among respondents above a certain monetary threshold in the CPS, we take the top 5% in terms of top-coded household income. In our survey, we report the industry breakdown among respondents with more than \$250,000 in household income, which roughly corresponds to the top 5% in terms of household income in the U.S.

⁴The industry information in our survey comes from an open-ended question asking respondents to state their industry and position. We coded these answers based on the CPS industry categories.

⁵For party ID, all three surveys contained a standard 7-point scale item. Identifiers of each party include strong and "not very strong" identifiers. For ideology, our survey and the CCES contain identical 5-point scale items (from "Very liberal/conservative" to "liberal/conservative" to "Moderate"). We code those responding "Very conservative/liberal" and "conservative/liberal" as conservative/liberal. The NES contains a 7-point ideology item (item V162171; from "Extremely liberal/conservative" to "Liberal/conservative" to "slightly liberal/conservative" to "Moderate"). Slightly liberal/conservative and moderates are considered moderate.

affluent respondents exhibit very similar rates of distrust of government, attitudes toward the role of government in providing health care, public education, and guaranteeing jobs, and the extent to which they think income inequality should be reduced.⁶

A4 Construction of the Income/Wealth Variable

In the analysis, our key explanatory variable divides our respondents into four income/wealth groups: general population, upper middle class (approx. 80-95%), affluent (95-99%), and highly affluent (top 1%). We started by creating five categories of income and gross financial assets separately based on our binned income and asset variables: 0-80th percentile (assigning an income or wealth score of zero), 80-90th (income or wealth score of one), 90-95th (score of two), 95-99th (score of three), and above 99th (score of four). We then summed the income and asset score for each individual and assigned respondents to four groups as follows: general population (scores 0-2), upper middle class (3-4), affluent (5-6), and the top 1% (7-8). By this logic, for example, the top 1% contains respondents who reported both income and assets in the top 1%, or who have at least one of the two categories in the top 1% and the other in the top 5%. A similar logic applies for the other income/wealth groups.

This key variable is a measure of economic class based on an objective criterion. Such objective measures are commonly used in the relevant literature (e.g. Gilens, 2012). Alternatively, beliefs and attitudes may be more closely associated with subjective perceptions of economic class (e.g. Brown-Iannuzzi et al., 2015). As shown in Figure A3, our objective measure is strongly associated with our respondents' subjective self-placement on a 0-100 income scale. (The correlation between our (binned) objective measure and the subjective measure is .75, significant at p < .001.) While there is some inevitable variation, respondents assigned to one of the top three categories of the objective measure clearly perceive themselves on average much closer to the top of the income distribution than respondents placed among the "general population." Moreover, those in the "top 1%" also clearly stand out compared to the other two affluent groups (those objectively placed in the 95-99th percentile range or those who could be considered upper middle class). We therefore consider our objective measure a reasonable summary of subjective class perceptions as well.

A5 Full Tabular Results Referenced in the Text

Tables A4-A8 show the full coefficient estimates for the results discussed in the text.

⁶The question wording for the trust item is identical in our survey and in the 2016 ANES (item V161215). The remaining questions differ somewhat. For the "role of government" items, our survey asked respondents to rate on a 7-point scale the ideal responsibility of government in each domain (health care, schools, jobs; see Section A8 below for exact wording), with 1 being no responsibility "at all," and 7 being "entirely the government's responsibility." For the table, responses 1-2 were coded as 1, and zero otherwise. The items in the ANES (V162193 on health care, V161206 on schooling, and V161189 on jobs) and the CCES (CC16.426.2 on health care, CC16.426.3 on jobs) ask whether respondents favor the government spending more or less money on these programs. Favoring less spending is coded as 1, and zero otherwise. For inequality tolerance, our survey asks whether a society should aim to equalize incomes, with 1 being "strongly disagree" and 7 being "strongly agree." Responses 1-2 are coded as 1 in the table. In the ANES, the most comparable item asks whether respondents favor or oppose the government reducing income inequality. The "oppose" responses are coded as 1.

A6 Additional Results

A6.1 Additional Controls

Results with additional control variables for a subset of the analyses are shown in Tables A9-A12.⁷ Given that individuals' causal attributions for inequality (particularly the genetic attributions) could be influenced by their faith in science, we add controls for beliefs in evolution and trust in the scientific community. Because genetic beliefs about drive and IQ have historically been associated with prejudice and racism, we add a control variable measuring racial prejudice. We also add controls for party ID, political interest, and the main source of wealth, as potential confounds for income/wealth. In all cases, our results are substantively unchanged when these additional controls are added.

Figures 2 and 3 in the text showed that the association between political attitudes and, respectively, first-order attributions and second-order attributions, is generally stronger among the affluent (those in the top 5%) than among others. These patterns can possibly be explained by differences in political sophistication correlated with affluence. Figures A4 and A5 below replicate the same analyses but also include an interaction between political interest—as a proxy for political sophistication—and causal attributions. Substantively, the results remain unchanged.

A6.2 Alternative Interactive Analysis

Figures 2 and 3 in the text show the results from specifications that include the standard linear interaction terms between the income/wealth groups and the attribution variables (first-order attributions in Figure 2, second-order attributions in Figure 3). As recently pointed out by Hainmueller et al. (2019), these specifications may be problematic if: (a) the moderating variables attributions—are unevenly distributed across different income/wealth groups; or (b) more flexiblymodelled interactive effects substantially depart from linearity. To guard against these concerns, we follow the recommendations of Hainmueller et al. (2019) and perform an alternative interactive analysis. Because some of our moderators, most notably the first-order dispositional attributions and the second-order choice attributions, are sparse at the lower end of our original 1-7 scale (and particularly among the affluent), we bin the moderators into three categories (1-3, 4-5, 6-7) to avoid model extrapolation. Further, to avoid constraining the interaction effects to be linear, we interact our top 5% and upper middle class income/wealth group dummies (with the general population group as the baseline) with dummies of the newly created binned attributions variables (with the lowest attribution bin as the baseline). The results based on these specifications are shown in Table A13 for the first-order attributions, and Table A14 for the second-order attributions. Looking across the main and interaction terms, the results with these modified specifications are qualitatively similar to those in the text: the association between attributions and attitudes is more pronounced among the affluent (the top 5%), particularly for the dispositional first-order attributions, and the choice and genetic second-order attributions.

⁷Other results are substantively similarly insensitive to additional controls. We omit them to keep the presentation of results to a reasonable length.

⁸Political interest is measured with a standard 4-point item on the tendency to follow political news, with 1 being "most of the time" and 4 being "hardly at all."

A7 Weighting and Weighted Analyses

Table A15 compares the socio-demographic characteristics of our general population and affluent samples to the national random sample from the 2015 American Community Survey (ACS). We compare our general population sample to all the respondents in the 2015 ACS; the affluent sample is compared to the respondents in the ACS reporting more than \$250,000 in family income (the ACS does not contain data on assets). As can be seen in the affluent panel (columns 4, 5 and 6), our affluent sample over-represents male, older, and highly educated respondents. (Note, however, that when comparing our affluent sample to respondents in the ACS with personal, rather than family income above \$250,000, the imbalances are considerably smaller. It is possible that at least some of our respondents reported personal instead of family income, even though the survey question sought to elicit the latter. It is also possible that our screening procedure for the affluent—eliminating anyone whose reported income bin differed from the most recent previous self-report—was responsible for some of the observed imbalances, to the extent that financial situation is more likely to change for the affluent who are female, younger, and less educated.)

In addition to controlling for these and other demographic characteristics in all the analyses, we worked with YouGov to developed custom weights to address these imbalances. YouGov first developed separate weights for the general population and the affluent samples. The weights for the general population sample balance the distribution of gender, age, race, education, party identification, ideology, and political interest against YouGov's sampling frame (see Section A1). The weights for the affluent sample balance the distribution of gender, age, race, and education relative to the rich portion of the 2015 ACS, and were further post-stratified on marital status, income and gross financial assets based on the information from the 2013 Survey of Consumer Finances. These separate weights were subsequently combined and further re-balanced with respect to the distribution of gender, age, race, and education in the overall U.S. population based on the 2015 ACS. Note that while this combined weight balances the socio-demographics in each sample, it does not shrink the affluent oversample to its true share of the population in terms of income and wealth. Our resultant samples, when weighted with the combined weight, are reasonably representative of the socio-demographic characteristics of each target population, as seen in the last column of each panel in Table A15.

As noted in the text, while the weights balance the socio-demographic characteristics of our affluent sample relative to the ACS benchmark, they considerably worsen the balance in crucial financial characteristics relative to the SCF (as well as in the industry breakdown), by over-weighting the extremes of the income and asset ranges, particularly at the lower end. ¹⁰ Our view is that the balance in terms of financial and industry characteristics is more important than with respect to the socio-demographics, given that the affluent are primarily defined based on their financial (and employment) characteristics. Since we have shown in Section A3 that our unweighted data are quite similar on a number of other dimensions to other sources on the affluent population, we opt to focus on unweighted results in the main text.

That said, Tables A16 and A17 and Figures A6 and A7 replicate with weighted data the key findings shown in the text.¹¹ Our key results are substantively unchanged, with the only difference

⁹The American Community Survey draws a 1% random sample based on the national census.

 $^{^{10}}$ The balance in the socio-demographic characteristics of our general population sample also worsens, as seen in Table A15.

¹¹Because of small samples and multiple interactions, for Figures A6 and A7, we exclude observations with very large weights (above the 95th percentile).

being somewhat noisier results for the association between affluence and the first-order attributions (Table A16).

A8 Survey Questionnaire

A8.1 Sources for Key Items

Our key survey items draw on widely-used items in prior surveys. Table A18 lists the sources.

A8.2 Financial Survey Items

Household Income

Thinking back over the last year, what was your family's annual income?

- Less than \$10,000
- \$10,000 \$19,999
- \$20,000 \$29,999
- \$30,000 \$39,999
- \$40,000 \$49,999
- \$50,000 \$59,999
- \$60,000 \$69,999
- \$70,000 \$79,999
- \$80,000 \$99,999
- \$100,000 \$119,999
- \$120,000 \$149,999
- \$150,000 or more
- Prefer not to say

If a respondent chose "\$150,000 or more," a pop-up window opened with the following options:

- \$150,000 \$199,999
- \$200,000 \$249,999
- \$250,000 \$349,999
- \$350,000 \$499,999
- \$500,000 \$749,999
- \$750,000 \$1 million
- More than \$1 million

Gross Liquid Assets

What is the total value of your investable assets? This includes all cash, savings, mutual funds, stocks, bonds, retirement accounts (such as IRAs, 401(k)s, 403(b)s, etc.), and all other types of investments, but excludes your home and other real estate value.

- Less than \$250,000
- \$250,000 to under \$500,000
- \$500,000 to under \$750,000
- \$750,000 to under \$1,000,000
- \$1-2 million
- \$2-5 million
- More than \$5 million
- Prefer not to answer

If a respondent chose "More than \$5 million," a pop-up window opened with the following options:

- \$5-10 million
- \$10-25 million
- \$25-50 million
- More than \$50 million

Source of Wealth

What has been the main source of your household's wealth?

- Inheritance or family assets
- Salary
- Income from own business
- Property
- Lottery
- Other (please specify)
- I prefer not to answer

A8.3 Causal Attributions for Success

- Please indicate on a scale from 1 to 7 for each of the following factors how important you think it is for getting ahead in life:
 - Hard work
 - Coming from a wealthy family

- Being lucky
- Being intelligent¹²

Answer choices: Not important at all (1) ... Extremely important (7)

A8.4 Causal Attributions for Drive to Succeed and IQ

- In your view, how important are the following factors in explaining the difference between people who have a strong drive to succeed [high IQ] and those who don't have any drive to succeed at all [have low IQs]?
 - People's genes or other in-born characteristics
 - The way people are raised, their experiences, or other aspects of their environment
 - People's free will, i.e., the independent choices they make in life.

Answer choices: Not important at all (1) ... Extremely important (7)

A8.5 Political Attitudes

- Please indicate to what extent you agree or disagree with the following statements:
 - The differences in incomes in the US are too large
 - A society should aim to equalize incomes

Answer choices: Strongly disagree (1) ... Strongly agree (7)

- Please indicate on a scale from 1 to 7 how much responsibility you think government should have:
 - To ensure that all children can go to good schools
 - To ensure a job for everyone who wants one
 - To ensure adequate health care

Answer choices: Not the government's responsibility at all (1) ... Entirely the government's responsibility (7)

- The effective income tax rate for the top category of annual household income above \$467,000 is currently 33%. That means, for example, that a family earning \$500,000 pays \$165,000 in taxes. In your opinion, should the top income tax rate be higher, the same, or lower? Answer choices: Much lower (1) ... Much higher (5)
- The Federal Estate Tax applies when a deceased person leaves more than \$5.45 million in wealth to his or her heirs. Currently, the effective federal estate tax rate is 17%. That means, for example, that on an inheritance worth \$10 million, an heir pays \$1.7 million in taxes. In your opinion, should the federal estate tax rate be higher, the same, or lower?

Answer choices: Much lower (1) ... Much higher (5)

¹²The battery included one additional item ("having connections"), but we did not use it because it does not lend itself to a clear categorization into either dispositional or situational first-order attributions.

A8.6 Questionnaire Structure

Table A19 shows the high-level structure of the full questionnaire. Questions in bold were used in this study. Other items are used in related projects.

A8.7 Correlations between First- and Second-Order Attributions

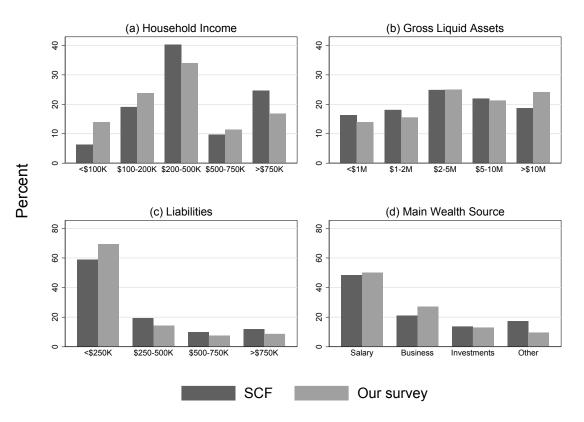
Table A20 shows the correlations between the causal attributions for success (in columns) and the causal attributions for drive to succeed and IQ (in rows). The correlations are generally low, suggesting that, as intended, the two question batteries capture reasonably distinct concepts of first-order and second-order attributions.

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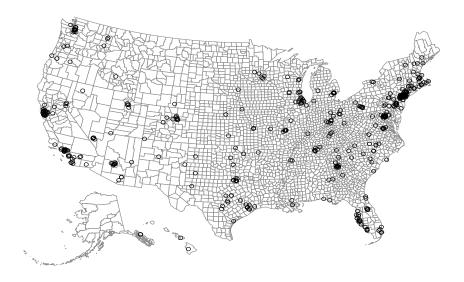
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Figure A1: Affluent sample financial characteristics compared to the SCF

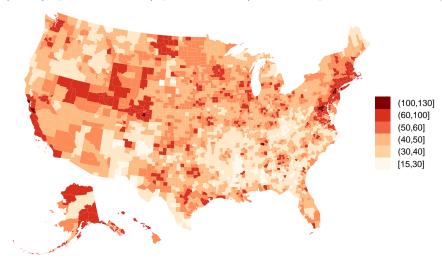


The figure compares the distribution of financial characteristics in our sample and the equivalently defined sample in the 2016 SCF. To match our sampling definition of the affluent, panel (a) restricts each sample to respondents with gross liquid assets above \$2 million; panel (b) to respondents with family income above \$350,000; panels (c) and (d) to respondents with either income or wealth above the respective cutoffs. The SCF totals incorporate SCF-provided population weights.

Figure A2: Geographical coverage of affluent respondents



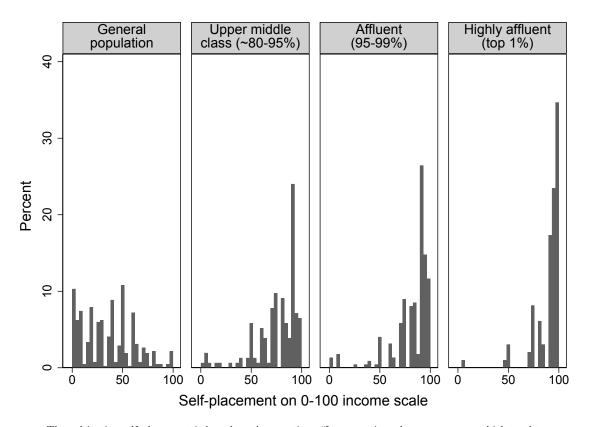
(a) Geographical location (zipcode centroid) of each respondent in our survey



(b) Average county-level household income

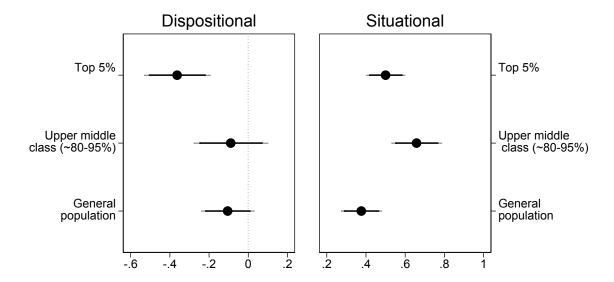
Each circle in panel (a) indicates the zipcode of a respondent from our affluent sample. One respondent did not provide this information. Panel (b) shows the average county-level household income, based on the data from the 2016 American Community Survey. Darker shades indicate higher average income. The shading legend, expressed in dollars (thousands), is indicated in the figure.

Figure A3: Objective and subjective measures of affluence



The subjective self-placement is based on the question: "In our society there are groups which tend to be toward the top and groups which tend to be toward the bottom of the income scale. If 1 equaled the bottom of the scale and 100 equaled the top of the scale, where would you put yourself now on this scale?" The categories of the objective measure of affluence, indicated in the header of each panel, are described in Section A4.

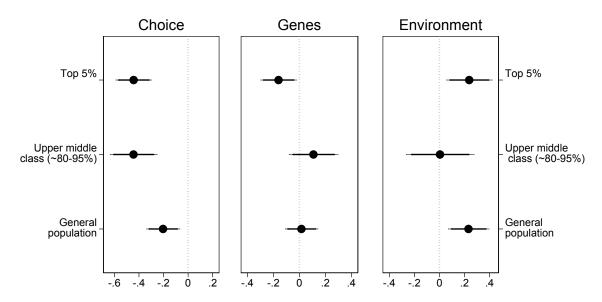
Figure A4: Affluence, first-order attributions, and political attitudes—adding attribution interactions with political interest



Association between one-unit increase in attribution and economic liberalism

The dependent variable is the average of three composite variables measuring political attitudes (inequality, role of government, taxes), as described in the text, with a range 1-7. Higher values indicate greater liberalism. The x-axis shows the effect of a one-unit increase in the attribution, estimated separately for each income/wealth group. In this analysis, the top 1% and the affluent (95-99%) income/wealth groups are joined together. The "Dispositional" attributions variable (left panel) is an average of responses about the importance of "hard work" and "intelligence" for getting ahead in life. The "Situational" attributions variable (right panel) is an average of responses about the importance of "luck" and "family background" for getting ahead in life. Both variables are on a 1-7 scale, with higher values indicating greater perceived importance of each set of factors. The thicker caps are the 90% confidence intervals; the thinner caps the 95% confidence intervals. All estimates are derived from a model that also includes controls for age, gender, race (white vs. non-white), marital and retirement status, education, religiosity, as well as the interactions between both sets of attributions and political interest.

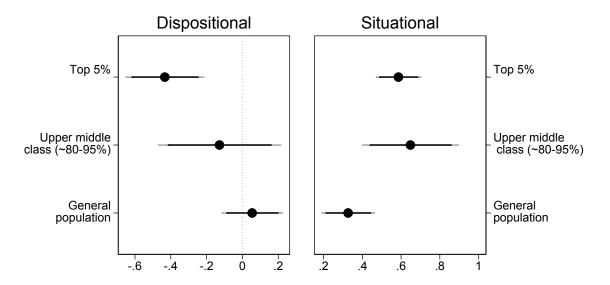
Figure A5: Affluence, second-order attributions, and political attitudes—adding attribution interactions with political interest



Association between one-unit increase in attribution and economic liberalism

The dependent variable is the average of three composite variables measuring political attitudes (inequality, role of government, taxes), as described in the text, with a range 1-7. Higher values indicate greater liberalism. The x-axis shows the effect of a one-unit increase in the attribution, estimated separately for each income/wealth group. In this analysis, the top 1% and the affluent (95-99%) income/wealth groups are joined together. The "Choice" attribution variable is an average of responses about the importance of individual choice in a person's (a) drive to succeed, and (b) IQ; variables "Genes" and "Environment" are equivalently defined, for genetic and environmental attributions, respectively. All three variables are on a 1-7 scale, with higher values indicating greater perceived importance of each factor. The thicker caps are the 90% confidence intervals; the thinner caps the 95% confidence intervals. All estimates are derived from a model that includes controls for age, gender, race (white vs. non-white), marital and retirement status, education, religiosity, as well as the interactions between each set of attributions and political interest.

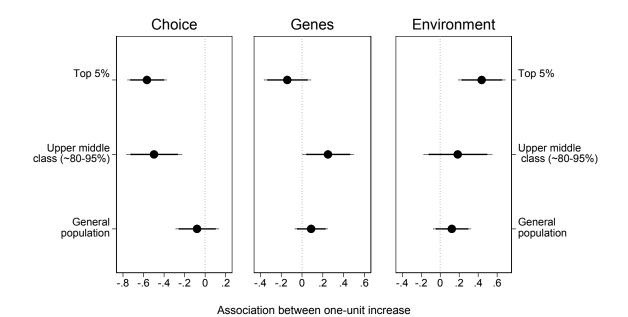
Figure A6: Affluence, first-order attributions, and political attitudes—weighted results



Association between one-unit increase in attribution and economic liberalism

The dependent variable is the average of three composite variables measuring political attitudes (inequality, role of government, taxes), as described in the text, with a range 1-7. Higher values indicate greater liberalism. The x-axis shows the effect of a one-unit increase in the attribution, estimated separately for each income/wealth group. In this analysis, the top 1% and the affluent (95-99%) are joined together. The attribution variables are also described in the notes to previous tables and figures, and are on a 1-7 scale, with higher values indicating greater perceived importance of each set of factors. The thicker caps are the 90% confidence intervals; the thinner caps the 95% confidence intervals. All estimates are derived from a model that also includes controls for age, gender, race (white vs. non-white), marital and retirement status, education, and religiosity. The analysis applies the custom socio-demographic weights described in Section A7.

Figure A7: Affluence, second-order attributions, and political attitudes—weighted results



The dependent variable is the average of three composite variables measuring political attitudes (inequality, role of government, taxes), as described in the text, with a range 1-7. Higher values indicate greater liberalism. The x-axis shows the effect of a one-unit increase in the attribution, estimated separately for each income/wealth group. In this analysis, the top 1% and the affluent (95-99%) are joined together. The attribution variables are described in the notes to previous tables and figures, and are on a 1-7 scale, with higher values indicating greater perceived importance of each set of factors. The thicker caps are the 90% confidence intervals; the thinner caps the 95% confidence intervals. All estimates are derived from a model that also includes controls for age, gender, race (white vs. non-white), marital and retirement status, education, and religiosity. The analysis applies the custom socio-demographic weights described in Section A7.

in attribution and economic liberalism

Table A1: Coverage of affluent in our survey and other surveys

	Our survey	ANES 2016	CCES 2016	GSS 2016
Highest income category	\$1,000,000	\$250,000	\$500,000 ^a	\$170,000
Sample size	900	$4,\!271$	64,600	$2,\!867$
Respondents above \$250,000	277	145	797	N/A
Respondents above \$500,000	167	N/A	177	N/A
Respondents above \$750,000	87	N/A	N/A	N/A
Information about financial assets	Yes	No	No	No

a. The 2016 CCES contains two top-coded categories: above \$500,000 and above \$150,000. Respondents could volunteer either response when both are applicable. In the respondent counts in the rest of the table, we exclude the 162 respondents who chose "above \$150,000," since we cannot classify them properly.

Table A2: Employment by industry in our sample and in the Current Population Survey

	CPS 2016	Our survey
Professional and business services	24.1	23.2
Education and health services	23.8	19.2
Financial activities	12.7	13.6
Wholesale and retail trade	9.1	6.8
Manufacturing	8.7	10.7
Leisure and hospitality	4.7	7.3
Public administration	4.3	1.7
Construction	4.1	4.5
Transportation and utilities	3.7	4.0
Information	3.4	8.5
Agriculture	1.4	0.6

All entries represent percentages. The first column reports the industry breakdown among respondents in the Current Population Survey (CPS) belonging to the top 5% in terms of household income. For comparability, the second column reports the industry breakdown among respondents in our survey with household income above \$250,000. In the CPS, we apply the household-level weights to calculate the industry shares. The shares in our survey sample are unweighted. In our survey, 23% of eligible respondents (those not retired) did not provide this information.

Table A3: Ideology, PID, and political attitudes among the affluent in our survey, ANES, and CCES

	Our survey	ANES 2016	CCES 2016
Ideology & PID			
Democrat	34.4	33.6	38.1
Republican	31.6	35.2	24.5
Liberal	29.5	26.2	32.9
Conservative	40.3	42.6	29.2
Political attitudes			
Low trust in gov't	85.3	91.9	N/A
Smaller role of gov't—health care	21.9	23.6	21.6
Smaller role of gov't—education	9.4	8.9	12.7
Smaller role of gov't—jobs	38.8	42.3	N/A
Inequality tolerance	43.5	48.0	N/A

All entries represent percentages. For party ID, all three surveys contained a standard 7-point scale item. Identifiers of each party include "strong" and "not very strong" identifiers. For ideology, our survey and the CCES contain identical 5-point scale items (from "Very liberal/conservative" to "liberal/conservative" to "Moderate"). We code those responding "Very conservative/liberal" and "conservative/liberal" as conservative/liberal. The NES contains a 7-point ideology item (item V162171; from "Extremely liberal/conservative" to "Liberal/conservative" to "slightly liberal/conservative" to "Moderate"). Slightly liberal/conservative and moderates are considered moderate. The question wording for the trust item is identical in our survey and in the 2016 ANES (item V161215). The remaining questions differ somewhat. For the "role of government" items, our survey asked respondents to rate on a 7-point scale the extent of responsibility of government in each domain (health care, schools, jobs; see Section A8 below for exact wording), with 1 being no responsibility "at all," and 7 being "entirely the government's responsibility." For the table, responses 1-2 were coded as 1, and zero otherwise. The items in the ANES (V162193 on health care, V161206 on schooling, and V161189 on jobs) and the CCES (CC16_426_2 on health care, CC16_426_3 on jobs) ask whether respondents favor the government spending more or less money on these programs. Favoring less spending is coded as 1, and zero otherwise. For inequality tolerance, our survey asks whether a society should aim to equalize incomes, with 1 being "strongly disagree" and 7 being "strongly agree." Responses 1-2 are coded as 1 in the table. In the ANES, the most comparable item asks whether respondents favor or oppose the government to reduce income inequality. The "oppose" responses are coded as 1.

Table A4: Affluence and first-order attributions—full results

	Dispositional	Situational	Difference
Economic class			
Highly affluent (top 1%)	0.53*** (0.13)	-0.12 (0.20)	0.66*** (0.25)
Affluent (95-99%)	0.27** (0.12)	-0.04 (0.17)	0.32 (0.21)
Upper middle class (\sim 80-95%)	0.24* (0.13)	-0.05 (0.17)	0.29 (0.21)
Socio-demographic controls	, ,	, ,	, ,
Age	0.01*** (0.00)	-0.00 (0.00)	0.01** (0.01)
Female	0.10 (0.08)	-0.01 (0.11)	0.12 (0.14)
White	0.02 (0.12)	0.35** (0.16)	-0.34* (0.19)
Retired	-0.01 (0.08)	-0.05 (0.12)	$0.05 \\ (0.15)$
Married	$0.08 \\ (0.08)$	-0.31*** (0.11)	0.40*** (0.14)
Education-High school	-0.44** (0.19)	-0.37 (0.47)	-0.10 (0.46)
Education–Some college	-0.64*** (0.20)	-0.34 (0.48)	-0.30 (0.46)
Education-2-year college	-0.62*** (0.23)	-0.10 (0.50)	-0.52 (0.51)
Education-4-year college	-0.65*** (0.19)	-0.10 (0.48)	-0.56 (0.46)
Education-Post-grad	-0.66*** (0.19)	$0.09 \\ (0.47)$	-0.77* (0.45)
Region-Northeast	-0.21** (0.10)	0.21 (0.14)	-0.42** (0.18)
Region-Midwest	0.01 (0.08)	-0.18 (0.15)	0.16 (0.18)
Region-West	-0.16* (0.09)	0.12 (0.13)	-0.28* (0.17)
Church attendance	-0.04** (0.02)	0.18*** (0.03)	-0.23*** (0.04)
Constant	6.11*** (0.26)	3.92*** (0.51)	2.21*** (0.53)
N	889	890	888

^{*} p < 0.1, *** p < 0.05, **** p < 0.01. Robust standard errors in parentheses. The "Dispositional" attributions variable (column 1) is an average of responses about the importance of "hard work" and "intelligence" for getting ahead in life. The "Situational" attributions variable (column 2) is an average of responses about the importance of "luck" and "family background" for getting ahead in life. Both variables are on a 1-7 scale, with higher values indicating greater perceived importance of each set of factors. The "Difference" variable (column 3) is the difference between the "dispositional" and "situational" attributions. The first three estimates in each column represent coefficients on indicator variables for each income/wealth group (the general population group is the excluded category).

Table A5: Affluence and second-order attributions—full results

	Choice	Genes	Environment	Dispositional (1st order and choice (2nd order)
Economic class				
Highly affluent (top 1%)	0.32* (0.17)	0.43** (0.17)	0.08 (0.15)	0.47*** (0.12)
Affluent (95-99%)	0.07 (0.15)	-0.01 (0.16)	-0.02 (0.13)	0.18 (0.11)
Upper middle class ($\sim 80-95\%$)	0.17 (0.15)	-0.15 (0.16)	-0.09 (0.13)	0.22* (0.12)
Socio-demographic controls				
Age	$0.00 \\ (0.00)$	$0.00 \\ (0.00)$	0.00 (0.00)	0.01** (0.00)
Female	0.17* (0.09)	0.18* (0.10)	0.15* (0.08)	0.13* (0.07)
White	-0.14 (0.12)	0.31** (0.15)	0.07 (0.13)	-0.05 (0.10)
Retired	-0.02 (0.11)	-0.12 (0.12)	0.04 (0.10)	-0.03 (0.07)
Married	0.11 (0.09)	-0.13 (0.10)	-0.14 (0.09)	$0.09 \\ (0.07)$
Education–High school	$0.05 \\ (0.30)$	$0.09 \\ (0.47)$	-0.14 (0.41)	-0.18 (0.20)
Education–Some college	-0.29 (0.31)	$0.25 \\ (0.47)$	-0.19 (0.41)	-0.48** (0.21)
Education-2-year college	-0.02 (0.33)	0.14 (0.48)	-0.32 (0.43)	-0.29 (0.22)
Education-4-year college	-0.37 (0.31)	$0.08 \\ (0.47)$	0.07 (0.41)	-0.52*** (0.20)
Education-Post-grad	-0.53* (0.31)	0.27 (0.47)	$0.00 \\ (0.41)$	-0.61*** (0.21)
Region-Northeast	-0.40*** (0.12)	-0.15 (0.13)	-0.05 (0.10)	-0.30*** (0.09)
Region-Midwest	-0.23** (0.11)	-0.12 (0.13)	-0.02 (0.10)	-0.09 (0.08)
Region-West	-0.19* (0.11)	-0.19 (0.12)	0.01 (0.10)	-0.16** (0.08)
Church attendance	-0.09*** (0.02)	0.02 (0.03)	-0.04* (0.02)	-0.06*** (0.02)
Constant	5.89*** (0.37)	4.25*** (0.52)	5.75*** (0.49)	6.00*** (0.25)
N	881	885	887	872

^{*} p < 0.1, *** p < 0.05, **** p < 0.01. Robust standard errors in parentheses. The "Choice" attribution variable (column 1) is an average of responses about the importance of individual choice in a person's drive to succeed and IQ; variables "Genes" (column 2) and "Environment" (column 3) are equivalently defined, respectively. All three variables are on a 1-7 scale, with higher values indicating greater perceived importance of each factor. The dependent variable in column 4 is the average of responses to the dispositional first-order attributions (see Table A4) and the second-order choice attributions (shown in column 1). The first three estimates in each column represent coefficients on indicator variables for each income/wealth group (the general population group is the excluded category).

Table A6: Affluence and political attitudes—full results

	Inequality	Role of gov't	Taxes	Combined
Economic class				
Highly affluent (top 1%)	-1.05***	-0.48**	-1.17***	-0.85***
	(0.25)	(0.23)	(0.24)	(0.21)
Affluent (95-99%)	-0.83***	-0.31	-0.95***	-0.64***
	(0.21)	(0.20)	(0.21)	(0.18)
Upper middle class ($\sim 80-95\%$)	-0.95***	-0.59***	-0.77***	-0.75***
	(0.22)	(0.21)	(0.22)	(0.19)
Socio-demographic controls				
Age	-0.01	-0.01	-0.00	-0.01
	(0.01)	(0.01)	(0.01)	(0.00)
Female	0.53***	0.49***	0.20	0.45***
	(0.14)	(0.13)	(0.13)	(0.11)
White	-0.45**	-0.41**	0.14	-0.30*
	(0.19)	(0.18)	(0.20)	(0.16)
Retired	0.01	0.07	0.05	0.05
	(0.17)	(0.15)	(0.16)	(0.14)
Married	-0.27*	-0.11	-0.14	-0.16
	(0.15)	(0.13)	(0.14)	(0.12)
Education–High school	-0.15 (0.45)	-0.28 (0.47)	0.11 (0.61)	-0.40 (0.41)
Education-Some college	-0.23	-0.14	0.41	-0.29
Education Some conege	(0.45)	(0.47)	(0.61)	(0.41)
Education-2-year college	-0.05	-0.09	0.67	-0.14
	(0.49)	(0.50)	(0.63)	(0.44)
Education-4-year college	0.13	-0.14	0.64	-0.12
	(0.45)	(0.47)	(0.62)	(0.41)
Education-Post-grad	0.54	0.33	1.05*	0.32
	(0.45)	(0.47)	(0.62)	(0.41)
Region-Northeast	0.18	0.28*	0.15	0.21
	(0.18)	(0.16)	(0.17)	(0.14)
Region-Midwest	0.02	0.10	-0.06	0.03
	(0.18)	(0.16)	(0.17)	(0.14)
Region-West	0.01	-0.05	-0.06	-0.04
	(0.18)	(0.16)	(0.16)	(0.15)
Church attendance	0.28***	0.22***	0.27***	0.25***
7	(0.04)	(0.04)	(0.04)	(0.03)
Constant	4.12***	4.33***	2.20***	3.98***
V	$\frac{(0.56)}{890}$	$\frac{(0.53)}{891}$	$\frac{(0.68)}{871}$	(0.48)

^{*} p < 0.1, *** p < 0.05, **** p < 0.01. Robust standard errors in parentheses. The "Inequality" variable (column 1) is the average of responses to two questions: whether differences in income in the U.S. are too large, and whether incomes should be equalized (range: 1-7). The "Role of gov't" variable (column 2) is the average of responses to three questions on the role of government in providing: quality schools for all children; a job for those in need of one; and adequate health care (range: 1-7). The variable "Taxes" (column 3) is the average of responses to two questions: whether the top income and the estate tax rates should be higher (original range: 1-5, rescaled to 1-7). The "Combined" variable (column 4) is the average of the previous three dependent variables (range: 1-7). Higher values indicate greater economic liberalism for all four dependent variables. The first three estimates in each column represent coefficients on indicator variables for each income/wealth group (the general population group is the excluded category).

Table A7: Affluence, attributions for success, and political attitudes—full results

	Coef	SE
Attributions		
Dispositional (work, IQ)	-0.07	0.06
Situational (luck, family)	0.33***	0.05
Economic class		
Top 5%	0.49	0.73
Upper middle class ($\sim 80-95\%$)	-2.42***	0.74
$Attributions \times economic class$		
Dispositional \times top 5%	-0.34***	0.10
Dispositional \times upper middle class	0.01	0.10
Situational \times top 5%	0.22***	0.07
Situational \times upper middle class	0.37***	0.08
Socio-demographic controls		
Age	-0.00	0.00
Female	0.44***	0.10
White	-0.42***	0.15
Retired	0.02	0.12
Married	-0.03	0.11
Education-High school	-0.34	0.42
Education—Some college	-0.24	0.42
Education-2-year college	-0.22	0.44
Education-4-year college	-0.19	0.42
Education-Post-grad	0.16	0.42
Region-Northeast	0.02	0.13
Region-Midwest	0.06	0.13
Region-West	-0.16	0.13
Church attendance	0.16***	0.03
Constant	3.28***	0.68
N	888	

^{*} p < 0.1, *** p < 0.05, **** p < 0.01. Robust standard errors reported. These coefficients underlie the estimates shown in Figure 2 in the paper. The dependent variable is the average of three composite variables measuring political attitudes (inequality, role of government, taxes), as described in the text, with a range 1-7. Higher values indicate greater liberalism. The "Dispositional" attributions variable is an average of responses about the importance of "hard work" and "intelligence" for getting ahead in life. The "Situational" attributions variable is an average of responses about the importance of "luck" and "family background" for getting ahead in life. Both variables are on a 1-7 scale, with higher values indicating greater perceived importance of each set of factors. In this analysis, the top 1% and the affluent (95-99%) income/wealth groups are joined together. The general population group is the excluded category.

Table A8: Affluence, attributions for drive to succeed and IQ, and political attitudes—full results

	Coef	SE
Attributions		
Choice	-0.17**	0.07
Genes	0.05	0.06
Environment	0.23***	0.07
Economic class		
Top 5%	2.07***	0.77
Upper middle class ($\sim 80-95\%$)	0.71	1.45
Attributions \times economic class		
Choice \times top 5%	-0.33***	0.10
Choice \times upper middle class	-0.26**	0.13
Genes \times top 5%	-0.17*	0.09
Genes \times upper middle class	0.15	0.12
Environment \times top 5%	-0.03	0.11
Environment \times upper middle class	-0.13	0.18
Socio-demographic controls		
Age	-0.00	0.00
Female	0.44***	0.11
White	-0.30*	0.16
Retired	-0.03	0.13
Married	-0.13	0.11
Education-High school	-0.39	0.39
Education—Some college	-0.31	0.39
Education-2-year college	-0.11	0.41
Education-4-year college	-0.18	0.39
Education-Post-grad	0.21	0.39
Region-Northeast	0.06	0.14
Region-Midwest	0.01	0.14
Region-West	-0.11	0.15
Church attendance	0.23***	0.03
Constant	3.47***	0.60
N	873	

^{*} p < 0.1, ** p < 0.05, *** p < 0.05, *** p < 0.01. Robust standard errors reported. These coefficients underlie the estimates shown in Figure 3 in the paper. The dependent variable is the average of three composite variables measuring political attitudes (inequality, role of government, taxes), as described in the text, with a range 1-7. Higher values indicate greater liberalism. The "Choice" attribution variable is an average of responses about the importance of individual choice in a person's: (a) drive to succeed, and (b) IQ; variables "Genes" and "Environment" are equivalently defined, respectively. All three variables are on a 1-7 scale, with higher values indicating greater perceived importance of each factor. In this analysis, the top 1% and the affluent (95-99%) income/wealth groups are joined together. The general population group is the excluded category.

Table A9: Affluence and dispositional first-order attributions—additional specifications

	(1)		(2)		(3)		(4)	
	Coef	SE	Coef	SE	Coef	SE	Coef	SE
Economic class								
Highly affluent (top 1%)	0.53***	0.13	0.56***	0.14	0.52***	0.14	0.52***	0.14
Affluent (95-99%)	0.27**	0.12	0.30**	0.13	0.27**	0.13	0.29**	0.12
Upper middle class (~80-95%)	0.24*	0.13	0.26*	0.14	0.23	0.14	0.28**	0.13
Socio-demographic controls								
Age	0.01***	0.00	0.01**	0.00	0.01**	0.00	0.01	0.00
Female	0.10	0.08	0.12	0.08	0.14*	0.08	0.15	0.09
White	0.02	0.12	0.01	0.12	-0.00	0.13	-0.08	0.13
Retired	-0.01	0.08	-0.02	0.08	-0.02	0.08	0.01	0.08
Married	0.08	0.08	0.11	0.08	0.11	0.08	0.14*	0.08
Education-High school	-0.44**	0.19	-0.46**	0.20	-0.49**	0.23	-0.39	0.28
Education-Some college	-0.64***	0.20	-0.65***	0.21	-0.65***	0.23	-0.55*	0.29
Education-2-year college	-0.62***	0.23	-0.67***	0.24	-0.68**	0.27	-0.66**	0.32
Education-4-year college	-0.65***	0.19	-0.65***	0.20	-0.65***	0.23	-0.62**	0.28
Education-Post-grad	-0.66***	0.19	-0.67***	0.21	-0.66***	0.23	-0.63**	0.28
Region-Northeast	-0.21**	0.10	-0.19*	0.10	-0.20**	0.10	-0.16	0.10
Region-Midwest	0.01	0.08	0.05	0.08	0.04	0.08	0.04	0.09
Region-West	-0.16*	0.09	-0.15*	0.09	-0.18**	0.09	-0.16*	0.09
Church attendance	-0.04**	0.02	-0.03	0.03	-0.02	0.03	-0.02	0.03
Attitudinal controls								
Evolution-Evolved, natural selection			0.07	0.14	0.10	0.14	0.07	0.13
Evolution-Evolved, supreme being			0.16	0.15	0.20	0.16	0.16	0.15
Evolution–Existed in present state			0.06	0.16	0.08	0.16	-0.02	0.16
Trust in science			0.03	0.06	0.04	0.06	0.06	0.06
Racial segregation			0.05	0.03	0.03	0.03	0.04	0.04
Fairness to Whites			0.05*	0.03	0.05*	0.03	0.05*	0.03
Party ID								
Democrat					0.05	0.09	0.02	0.09
Republican					0.26***	0.08	0.28***	0.08
Additional controls								
Political interest–Most of time							0.30	0.53
Political interest–Some of time							0.37	0.52
Political interest–Now and then							-0.02	0.53
Wealth source—Own business							0.09	0.09
Wealth source—Inheritance							-0.07	0.18
Constant	6.11***	0.26	5.68***	0.37	5.58***	0.39	5.30***	0.65
N	889		865		848		804	

^{*} p < 0.1, ** p < 0.05, *** p < 0.01. Robust standard errors reported. The dependent variable is the "Dispositional" attribution for success in life, measured as the average of responses about the importance of "hard work" and "intelligence" for success (on a 1-7 scale). Higher values indicate greater perceived importance of these factors. The first three estimates in each column represent coefficients on indicator variables for each income/wealth group (the general population group is the excluded category).

Table A10: Affluence and dispositional vs. situational first-order attributions—additional specifications

	(1)		(2)		(3)		(4)	
	Coef	SE	Coef	SE	Coef	SE	Coef	SE
Economic class								
Highly affluent (top 1%)	0.66***	0.25	0.71***	0.24	0.59**	0.24	0.68***	0.25
Affluent (95-99%)	0.32	0.21	0.38*	0.21	0.29	0.20	0.35	0.22
Upper middle class (~80-95%)	0.29	0.21	0.24	0.21	0.17	0.21	0.25	0.22
Socio-demographic controls								
Age	0.01**	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Female	0.12	0.14	0.17	0.14	0.27*	0.14	0.34**	0.15
White	-0.34*	0.19	-0.30	0.20	-0.37*	0.21	-0.39*	0.22
Retired	0.05	0.15	0.03	0.15	0.00	0.15	0.01	0.16
Married	0.40***	0.14	0.45***	0.14	0.44***	0.14	0.48***	0.15
Education-High school	-0.10	0.46	-0.13	0.43	-0.22	0.50	-0.45	0.66
Education-Some college	-0.30	0.46	-0.19	0.43	-0.23	0.50	-0.52	0.66
Education-2-year college	-0.52	0.51	-0.45	0.50	-0.50	0.56	-0.88	0.71
Education-4-year college	-0.56	0.46	-0.38	0.43	-0.47	0.50	-0.84	0.65
Education-Post-grad	-0.77*	0.45	-0.44	0.43	-0.46	0.50	-0.84	0.65
Region-Northeast	-0.42**	0.18	-0.35*	0.18	-0.34*	0.18	-0.31*	0.18
Region-Midwest	0.16	0.18	0.19	0.17	0.18	0.17	0.12	0.18
Region-West	-0.28*	0.17	-0.27	0.16	-0.29*	0.17	-0.31*	0.17
Church attendance	-0.23***	0.04	-0.15***	0.05	-0.12**	0.05	-0.12**	0.05
Attitudinal controls								
Evolution-Evolved, natural selection			-0.05	0.21	0.02	0.22	-0.04	0.23
Evolution-Evolved, supreme being			0.16	0.23	0.18	0.24	0.15	0.24
Evolution–Existed in present state			-0.14	0.25	-0.09	0.26	-0.14	0.28
Trust in science			-0.43***	0.10	-0.32***	0.11	-0.29**	0.12
Racial segregation			0.04	0.07	-0.00	0.07	0.01	0.07
Fairness to Whites			0.18***	0.06	0.15***	0.06	0.16***	0.06
Party ID								
Democrat					-0.36**	0.16	-0.38**	0.17
Republican					0.65***	0.15	0.69***	0.16
Additional controls								
Political interest–Most of time							0.18	0.49
Political interest-Some of time							0.23	0.49
Political interest–Now and then							-0.53	0.60
Wealth source—Own business							0.06	0.18
Wealth source-Inheritance							-0.41	0.27
Constant	2.21***	0.53	2.64***	0.65	2.41***	0.72	2.55***	0.97
N	888		864		847		803	

^{*} p < 0.1, ** p < 0.05, *** p < 0.01. Robust standard errors reported. The dependent variable is the difference between the "dispositional" and "situational" attributions for success in life. Dispositional attributions are measured as the average of responses about the importance of "hard work" and "intelligence" for success. Situational attributions are measured as the average of responses about the importance of "luck" and "family background" for success. All attributions are measured on a 1-7 scale. The first three estimates in each column represent coefficients on indicator variables for each income/wealth group (the general population group is the excluded category).

Table A11: Affluence and choice second-order attributions—additional specifications

	(1)		(2)		(3)		(4)	
	Coef	SE	Coef	SE	Coef	SE	Coef	SE
Economic class								
Highly affluent (top 1%)	0.32*	0.17	0.38**	0.17	0.29*	0.16	0.31*	0.18
Affluent (95-99%)	0.07	0.15	0.12	0.15	0.05	0.15	0.06	0.15
Upper middle class (~80-95%)	0.17	0.15	0.18	0.15	0.10	0.15	0.17	0.14
Socio-demographic controls								
Age	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Female	0.17*	0.09	0.19**	0.09	0.24***	0.09	0.25***	0.10
White	-0.14	0.12	-0.17	0.12	-0.20	0.13	-0.29**	0.13
Retired	-0.02	0.11	-0.06	0.11	-0.06	0.10	-0.07	0.11
Married	0.11	0.09	0.17*	0.10	0.14	0.10	0.17*	0.10
Education-High school	0.05	0.30	0.34	0.33	0.15	0.40	0.20	0.55
Education-Some college	-0.29	0.31	0.08	0.33	-0.06	0.40	-0.06	0.55
Education-2-year college	-0.02	0.33	0.33	0.35	0.15	0.42	0.03	0.57
Education-4-year college	-0.37	0.31	0.05	0.33	-0.10	0.40	-0.14	0.55
Education-Post-grad	-0.53*	0.31	-0.01	0.34	-0.11	0.40	-0.16	0.55
Region-Northeast	-0.40***	0.12	-0.35***	0.11	-0.33***	0.11	-0.29**	0.12
Region-Midwest	-0.23**	0.11	-0.18	0.11	-0.17	0.11	-0.12	0.1
Region-West	-0.19*	0.11	-0.16	0.11	-0.19*	0.11	-0.17	0.11
Church attendance	-0.09***	0.02	-0.03	0.03	-0.02	0.03	-0.02	0.0
Attitudinal controls								
Evolution-Evolved, natural selection			-0.07	0.16	0.03	0.16	-0.03	0.18
Evolution-Evolved, supreme being			0.13	0.17	0.18	0.17	0.08	0.16
Evolution–Existed in present state			0.10	0.17	0.22	0.17	0.10	0.1'
Trust in science			-0.14**	0.07	-0.10	0.07	-0.15**	0.0'
Racial segregation			0.06	0.04	0.04	0.04	0.05	0.0^{4}
Fairness to Whites			0.13***	0.04	0.12***	0.04	0.12***	0.04
Party ID								
Democrat					-0.33***	0.11	-0.32***	0.11
Republican					0.13	0.10	0.11	0.10
Additional controls								
Political interest-Most of time							0.62*	0.32
Political interest-Some of time							0.50	0.33
Political interest-Now and then							0.50	0.36
Wealth source—Own business							0.01	0.15
Wealth source-Inheritance							-0.30	0.2
Constant	5.89***	0.37	5.30***	0.46	5.38***	0.51	5.12***	0.68
N	881		854		837		794	

^{*} p < 0.1, *** p < 0.05, *** p < 0.01. Robust standard errors reported. The dependent variable is the average of responses about the importance of choice in explaining differences in people's: (a) drive to succeed, and (b) IQ (both on a 1-7 scale). Higher values indicate greater perceived importance. The first three estimates in each column represent coefficients on indicator variables for each income/wealth group (the general population group is the excluded category).

Table A12: Affluence and genetic second-order attributions—additional specifications

	(1)		(2)		(3)		(4)	
	Coef	SE	Coef	SE	Coef	SE	Coef	SE
Economic class								
Highly affluent (top 1%)	0.43**	0.17	0.54***	0.17	0.55***	0.17	0.52***	0.18
Affluent (95-99%)	-0.01	0.16	0.05	0.16	0.07	0.16	0.07	0.16
Upper middle class ($\sim 80-95\%$)	-0.15	0.16	-0.05	0.17	-0.03	0.17	-0.02	0.16
Socio-demographic controls								
Age	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Female	0.18*	0.10	0.15	0.10	0.15	0.11	0.11	0.11
White	0.31**	0.15	0.27*	0.16	0.28*	0.16	0.24	0.17
Retired	-0.12	0.12	-0.17	0.12	-0.16	0.12	-0.11	0.13
Married	-0.13	0.10	-0.10	0.11	-0.11	0.11	-0.09	0.11
Education-High school	0.09	0.47	0.15	0.46	-0.01	0.38	-0.27	0.53
Education-Some college	0.25	0.47	0.30	0.46	0.12	0.39	-0.05	0.53
Education-2-year college	0.14	0.48	0.21	0.48	0.04	0.41	-0.15	0.55
Education-4-year college	0.08	0.47	0.11	0.46	-0.08	0.38	-0.30	0.52
Education-Post-grad	0.27	0.47	0.28	0.46	0.07	0.38	-0.12	0.52
Region-Northeast	-0.15	0.13	-0.14	0.13	-0.14	0.13	-0.10	0.13
Region-Midwest	-0.12	0.13	-0.04	0.13	-0.05	0.13	-0.02	0.13
Region-West	-0.19	0.12	-0.16	0.12	-0.16	0.13	-0.11	0.13
Church attendance	0.02	0.03	0.03	0.03	0.03	0.03	0.03	0.04
Attitudinal controls								
Evolution-Evolved, natural selection			-0.21	0.16	-0.16	0.16	-0.16	0.16
Evolution–Evolved, supreme being			-0.25	0.18	-0.22	0.18	-0.21	0.18
Evolution–Existed in present state			0.05	0.19	0.05	0.20	0.04	0.21
Trust in science			0.17**	0.08	0.15*	0.09	0.21**	0.09
Racial segregation			0.14***	0.05	0.13***	0.05	0.14***	0.05
Fairness to Whites			0.06	0.04	0.06*	0.04	0.05	0.04
Party ID								
Democrat					0.06	0.12	0.02	0.12
Republican					0.01	0.12	0.01	0.12
Additional controls								
Political interest-Most of time							0.07	0.38
Political interest-Some of time							0.25	0.38
Political interest-Now and then							0.26	0.42
Wealth source-Own business							0.20	0.14
Wealth source-Inheritance							0.24	0.19
Constant	4.25***	0.52	3.45***	0.63	3.67***	0.55	3.59***	0.75
N	885		859		843		798	

^{*} p < 0.1, *** p < 0.05, *** p < 0.01. Robust standard errors reported. The dependent variable is the average of responses about the importance of genes or other in-born characteristics in explaining differences in people's: (a) drive to succeed, and (b) IQ (both on a 1-7 scale). Higher values indicate greater perceived importance. The first three estimates in each column represent coefficients on indicator variables for each income/wealth group (the general population group is the excluded category).

Table A13: Affluence, first-order attributions, and political attitudes—alternative analysis

	Coef	SE
Economic class		
Top 5%	0.89**	0.40
Upper middle class ($\sim 80-95\%$)	-2.21***	0.56
Attributions		
Dispositional—medium	0.23	0.29
Dispositional-high	-0.10	0.29
Situational-medium	0.54***	0.17
Situational-high	1.30***	0.19
$\textbf{Attributions} \times \textbf{economic class}$		
Top $5\% \times dispositional-medium$	-1.92***	0.39
Top $5\% \times \text{dispositional-high}$	-2.09***	0.37
Upper middle class \times dispositional–medium	0.84	0.62
Upper middle class \times dispositional—high	1.09*	0.57
Top $5\% \times \text{situational-medium}$	0.72***	0.26
Top $5\% \times \text{situational-high}$	0.82***	0.28
Upper middle class \times situational–medium	0.44	0.31
Upper middle class \times situational-high	1.46***	0.32
N	888	

^{*} p < 0.1, *** p < 0.05, **** p < 0.01. Robust standard errors reported. The dependent variable is the average of three composite variables measuring political attitudes (inequality, role of government, taxes), as described in the text, with a range 1-7. Higher values indicate greater liberalism. The "Dispositional" attributions variable is an average of responses about the importance of "hard work" and "intelligence" for getting ahead in life. The "Situational" attributions variable is an average of responses about the importance of "luck" and "family background" for getting ahead in life. Both variables are on a 1-7 scale, with higher values indicating greater perceived importance of each set of factors. In this analysis, the top 1% and the affluent (95-99%) income/wealth groups are joined together. The general population group is the excluded category. All estimates are derived from a model that also includes controls for age, gender, race (white vs. non-white), marital and retirement status, education, and religiosity.

Table A14: Affluence, second-order attributions, and political attitudes—alternative analysis

	Coef	SE
Economic class		
Top 5%	0.81	0.62
Upper middle class (\sim 80-95%)	-0.18	1.04
Attributions		
Choice—medium	-0.26	0.28
Choice-high	-0.41	0.30
Genes-medium	0.23	0.21
Genes-high	0.24	0.24
Environment-medium	-0.08	0.30
Environment-high	0.37	0.30
$\textbf{Attributions} \times \textbf{economic class}$		
Top $5\% \times \text{choice-medium}$	-0.79**	0.38
Top $5\% \times \text{choice-high}$	-1.58***	0.41
Upper middle class \times choice–medium	-0.24	0.48
Upper middle class \times choice—high	-0.95*	0.50
Top $5\% \times \text{genes-medium}$	-0.36	0.32
Top $5\% \times \text{genes-high}$	-0.57*	0.35
Upper middle class \times genes–medium	0.23	0.40
Upper middle class \times genes-high	0.47	0.47
Top $5\% \times \text{environment-medium}$	-0.17	0.53
Top $5\% \times \text{environment-high}$	-0.08	0.53
Upper middle class \times environment–medium	-0.16	0.80
Upper middle class \times environment-high	-0.37	0.79
N	873	

^{*} p < 0.1, *** p < 0.05, **** p < 0.01. Robust standard errors reported. The dependent variable is the average of three composite variables measuring political attitudes (inequality, role of government, taxes), as described in the text, with a range 1-7. Higher values indicate greater liberalism. The "Choice" attribution variable is an average of responses about the importance of individual choice in a person's: (a) drive to succeed, and (b) IQ; variables "Genes" and "Environment" are equivalently defined, respectively. All three variables are on a 1-7 scale, with higher values indicating greater perceived importance of each factor. In this analysis, the top 1% and the affluent (95-99%) income/wealth groups are joined together. The general population group is the excluded category. All estimates are derived from a model that also includes controls for age, gender, race (white vs. non-white), marital and retirement status, education, and religiosity.

Table A15: Socio-demographic characteristics in our sample and in the American Community Survey

		General Population			Affluent		
	ACS	Our survey unweighted	Our survey weighted	ACS	Our survey unweighted	Our survey weighted	
Female	0.53	0.53	0.59	0.49	0.21	0.45	
White	0.78	0.80	0.66	0.86	0.92	0.85	
High school or less	0.70	0.68	0.82	0.29	0.08	0.26	
College	0.19	0.19	0.13	0.34	0.28	0.34	
Post-graduate	0.11	0.13	0.05	0.37	0.63	0.39	
Aged 18-44	0.43	0.37	0.47	0.34	0.07	0.26	
Aged 45-64	0.35	0.40	0.33	0.48	0.41	0.56	
Aged 65 or more	0.22	0.22	0.21	0.18	0.53	0.18	

The ACS estimates are based on the 1% (1-in-100) national random sample from the 2015 American Community Survey (ACS). The ACS general population sample includes all the respondents. The "affluent" ACS sample is limited to respondents with family income above \$250,000. The weighted YouGov samples employ custom socio-demographic weights described in Section A7 above. The "High school or less" category includes respondents who attended some college but did not graduate.

Table A16: Affluence and first-order attributions—weighted results

	Dispositional	Situational	Difference
Economic class			
Highly affluent (top 1%)	0.40* (0.21)	-0.10 (0.36)	0.50 (0.36)
Affluent (95-99%)	0.07 (0.24)	-0.11 (0.32)	0.17 (0.34)
Upper middle class ($\sim 80-95\%$)	-0.03 (0.23)	-0.16 (0.29)	0.13 (0.34)
Socio-demographic controls			
Age	$0.00 \\ (0.00)$	-0.01* (0.01)	0.01* (0.01)
Female	$0.05 \\ (0.12)$	$0.08 \\ (0.16)$	-0.03 (0.20)
White	$0.08 \\ (0.16)$	$0.25 \\ (0.21)$	-0.17 (0.25)
Retired	0.02 (0.15)	-0.07 (0.22)	0.09 (0.28)
Married	0.08 (0.12)	-0.24 (0.18)	0.33 (0.21)
Education–High school	-0.40* (0.23)	-0.32 (0.41)	-0.09 (0.42)
Education—Some college	-0.38* (0.21)	-0.67 (0.42)	0.29 (0.39)
Education—2-year college	-0.68** (0.34)	-0.49 (0.49)	-0.19 (0.47)
Education-4-year college	-0.33 (0.24)	-0.26 (0.44)	-0.07 (0.43)
Education-Post-grad	-0.39* (0.24)	-0.15 (0.44)	-0.24 (0.41)
Region-Northeast	-0.35* (0.20)	-0.01 (0.24)	-0.34 (0.30)
Region-Midwest	$0.06 \\ (0.12)$	-0.36 (0.23)	0.41 (0.27)
Region-West	-0.22 (0.14)	0.28 (0.21)	-0.50* (0.26)
Church attendance	-0.02 (0.03)	0.15*** (0.05)	-0.17*** (0.06)
Constant	6.22^{***} (0.32)	4.58*** (0.52)	1.65*** (0.57)
N	889	890	888

^{*} p < 0.1, ** p < 0.05, *** p < 0.01. Robust standard errors in parentheses, p-values in brackets. The dependent attribution variables, indicated in column headers, are on a 1-7 scale, and as described in the text and notes to previous tables and figures. Higher values indicate greater perceived importance of each set of factors. The first three estimates represent coefficients on indicator variables for each income/wealth group (the general population group is the excluded category). All models include controls for age, gender, race (white vs. non-white), marital and retirement status, education, and religiosity. All analyses employ the custom socio-demographic weights described in Section A7.

Table A17: Affluence and second-order attributions—weighted results

	Choice	Genes	Environment	Dispositional (1st order and choice (2nd order)
Economic class				
Highly affluent (top 1%)	0.75***	0.59**	0.11	0.62***
	(0.21)	(0.26)	(0.23)	(0.16)
Affluent (95-99%)	0.17 (0.18)	-0.14 (0.25)	-0.15 (0.20)	$0.11 \\ (0.18)$
Upper middle class ($\sim 80-95\%$)	0.27 (0.21)	-0.36 (0.26)	-0.16 (0.19)	0.12 (0.16)
Socio-demographic controls	(**==)	(**=*)	(0.20)	(3.23)
Age	0.00 (0.00)	0.01 (0.01)	-0.00 (0.01)	0.00 (0.00)
Female	0.25** (0.11)	0.02 (0.15)	-0.02 (0.11)	0.14 (0.09)
White	0.02 (0.14)	0.39* (0.20)	0.20 (0.16)	$0.06 \\ (0.12)$
Retired	-0.15 (0.17)	-0.28 (0.20)	0.12 (0.14)	-0.07 (0.12)
Married	-0.08 (0.12)	-0.21 (0.17)	-0.14 (0.13)	$0.03 \\ (0.10)$
Education–High school	0.12 (0.30)	0.39 (0.44)	$0.05 \\ (0.45)$	-0.17 (0.21)
Education–Some college	-0.09 (0.31)	0.63 (0.46)	0.11 (0.45)	-0.29 (0.20)
Education-2-year college	0.13 (0.32)	0.36 (0.46)	-0.21 (0.50)	-0.26 (0.26)
Education-4-year college	-0.23 (0.32)	0.15 (0.46)	0.39 (0.46)	-0.33 (0.21)
Education-Post-grad	-0.23 (0.35)	0.33 (0.48)	0.29 (0.48)	-0.36* (0.22)
Region-Northeast	-0.49*** (0.16)	-0.09 (0.21)	-0.27* (0.16)	-0.42*** (0.14)
Region-Midwest	-0.10 (0.16)	-0.12 (0.19)	-0.00 (0.15)	-0.01 (0.12)
Region-West	-0.07 (0.17)	0.02 (0.19)	0.09 (0.15)	-0.13 (0.12)
Church attendance	-0.08** (0.03)	-0.04 (0.05)	-0.04 (0.03)	-0.05* (0.03)
Constant	5.68*** (0.40)	4.26*** (0.60)	5.86*** (0.63)	5.99*** (0.27)
V	881	885	887	872

^{*} p < 0.1, *** p < 0.05, **** p < 0.01. Robust standard errors in parentheses, p-values in brackets. The dependent attribution variables, indicated in column headers, are on a 1-7 scale, and as described in the text and notes to previous tables and figures. Higher values indicate greater perceived importance of each set of factors. The first three estimates represent coefficients on indicator variables for each income/wealth group (the general population group is the excluded category). All models include controls for age, gender, race (white vs. non-white), marital and retirement status, education, and religiosity. All analyses employ the custom socio-demographic weights described in Section A7.

Table A18: Sources for our key survey items $\,$

Question	Source
Attributions for success	International Social Survey Programme (ISSP) Social Inequality Module (1987, 1992, 1999, 2009)
Attributions for drive to succeed and IQ	Beliefs about and Understanding of Genetics Study, University of Michigan School of Public Health (Christensen et al., 2010; Jayaratne, 2001)
Attitudes on inequality	
Differences in income are too large	ISSP Social Inequality Module (1987, 1992, 1999, 2009); General Social Survey (1987, 1992, 1996, 2000, 2008, 2010, 2012)
A society should aim to equalize income	Adapted from: Gallup (Survey of Americans' Perceptions of Inequality, Economy and Personal Finance, 2015); European Social Survey (Round 4) ^a
Attitudes on role of government (jobs, health care, schools) Attitudes on income and estate taxes	European Social Survey (round 4); Pew Research Center and Gallup ^b Adapted from: American National Election Study 2016;
	Page et al. (2011)

a. Also used in Almås et al. (2019).

b. In multiple surveys; for example: http://www.pewresearch.org/fact-tank/2017/01/13/more-americans-say-government-should-ensure-health-care-coverage/

Table A19: Structure of the questionnaire

Income and assets screener

Interview consent

Causal attributions for drive to succeed

Causal attributions for IQ

Group-based causal attributions for drive to succeed and IQ

Scientific knowledge and trust

Tax attitudes

Attitudes toward economic inequality

Attitudes toward role of government

Causal attributions for success

Current and ideal salary for various occupations

Current and past income scale self-placement

Trust in government

Racial prejudice

Charitable giving

Redistribution real-effort task

Sociodemographic battery

Questions in bold are used in this study. Other items are used in related projects.

Table A20: Correlations between first- and second-order attributions

	First-order attributions							
attributions	Work	IQ	Luck	Family				
Choice	0.33 0.08	0.15	-0.19	-0.18				
Genes	0.08	0.25	0.12	0.15				
Environment	0.11	0.17	0.06	0.10				

The entries in each cell are the correlation coefficients. The attributions for success are shown in columns; attributions for drive and IQ are shown in rows. Responses for drive and IQ were averaged for each of the attributions.