Supplemental Information

Voter Preferences as a Source of Descriptive (Mis)Representation by Social Class

Reto Wüest[*] and Jonas Pontusson[†]

---

[*] Reto Wüest (reto.wueest@uib.no), Department of Comparative Politics, University of Bergen, Norway. Corresponding Author.

[†] Jonas Pontusson (jonas.pontusson@unige.ch), Department of Political Science and International Relations, University of Geneva, Switzerland.

Contents

1 Combining Citizen Evaluations of Candidate Empathy and Competence Into a Single Preference Ordering

Based on research in social psychology (Fiske et al. 2002; Fiske, Cuddy and Glick 2007; Russell and Fiske 2008) and political science (Stewart and Clarke 1992; McCurley and Mondak 1995; Funk 1996, 1999), we expect that citizens evaluate the personality of political candidates along two primary dimensions: empathy and competence. Combining these evaluations into a single preference ordering over candidates raises the question how citizens weigh candidates' positions on each dimension. Let $l \in \{\mathrm{UMC}, \mathrm{LMC}, \mathrm{SWC}, \mathrm{RWC}\}$ denote the class profile of a candidate, $u_e(l)$ the utility that citizens derive from the perceived position of a candidate with profile l on the empathy dimension, $u_c(l)$ the utility that they derive from the perceived position of a candidate with profile l on the competence dimension, and $u(l) = u_e(l) + u_c(l)$ the overall utility. Table S1 shows the utilities that citizens derive from each profile on the empathy and competence dimensions as well as the overall utility associated with each profile. We assume that $\alpha_e > \beta_e > \gamma_e \geq 0$ and $\alpha_c > \beta_c > \gamma_c \geq 0$.

Table S1: Citizens' Utility Functions

Class profile l	$u_e(l)$	$u_c(l)$	$u(l)$
UMC	γ_e	α_c	$\gamma_e + \alpha_c$
LMC	α_e	β_c	$\alpha_e + \beta_c$
SWC	α_e	β_c	$\alpha_e + \beta_c$
RWC	β_e	γ_c	$\beta_e + \gamma_c$

Our Hypothesis 1 states that, on average, citizens prefer skilled working-class and lower middle-class candidates over routine working-class and upper middle-class candidates. Hence, this hypothesis requires that

$$u(\mathrm{SWC}), u(\mathrm{LMC}) > u(\mathrm{RWC}), \tag{1}$$
$$u(\mathrm{SWC}), u(\mathrm{LMC}) > u(\mathrm{UMC}), \tag{2}$$

or, substituting the parameters given in Table S1 into Inequalities (1) and (2),

$$\alpha_e + \beta_c > \beta_e + \gamma_c, \tag{3}$$
$$\alpha_e + \beta_c > \gamma_e + \alpha_c. \tag{4}$$

Inequality (3) holds due to our assumption that $\alpha_e > \beta_e > \gamma_e \geq 0$ and $\alpha_c > \beta_c > \gamma_c \geq 0$. Inequality (4) holds if $\alpha_e - \gamma_e > \alpha_c - \beta_c$. This condition is likely to be satisfied since

research indicates that although empathy and competence are both fundamental to social perception, empathy judgments carry more weight in people's evaluations of others than competence judgments (Fiske, Cuddy and Glick 2007).

Our Hypothesis 2 posits that middle-class citizens are not biased against upper middle-class candidates relative to skilled working-class and lower middle-class candidates. The reasoning behind this hypothesis is that middle-class citizens might have goals and educational backgrounds that are similar to the goals and educational backgrounds of upper middle-class candidates. As a consequence, they might evaluate upper middle-class candidates more favorably relative to skilled working-class and lower middle-class candidates than working-class citizens do. In terms of their utility function, middle-class citizens now derive utility $u_e^{\text{MC}}(\text{UMC}) = \gamma_e + \delta_e$ on the empathy dimension and utility $u_c^{\text{MC}}(\text{UMC}) = \alpha_c + \delta_c$ on the competence dimension from upper middle-class candidates, where $\delta_e, \delta_c > 0$. In this scenario, Inequality (2) holds if $\alpha_e - \gamma_e - \delta_e > \alpha_c - \beta_c + \delta_c$, which becomes increasingly unlikely as δ_e and δ_c increase.

2 Candidate Attributes and Attribute Levels

Table S2 describes the attributes, attribute levels, and randomization restrictions we used to randomly generate the candidate profiles in our conjoint experiment.

Table S2: Attributes and Possible Values in the Candidate Choice Experiment

Attribute	Possible values	Randomization restriction
Gender	• Male	–
	• Female	–
Political party	• SPS	Political ideology $\in$ {Left, Center-left}
	• CVP	Political ideology $\in$ {Center-left, Center}
	• FDP	Political ideology $\in$ {Center, Center-right}
	• SVP	Political ideology $\in$ {Center-right, Right}
Political ideology	• Left	Political party = SPS
	• Center-left	Political party $\in$ {SPS, CVP}
	• Center	Political party $\in$ {CVP, FDP}
	• Center-right	Political party $\in$ {FDP, SVP}
	• Right	Political party = SVP
Previous experience in the National Council	• None	–
	• 4 years	–
Education	• Vocational education (VET)	Occupation = Retail salesperson
	• Higher vocational education (Advanced Federal PET Diploma)	Occupation = Retail salesperson
	• University/ETH (master)	Occupation $\in$ {Engineer, Lawyer, Executive board of an international company}
	• University/ETH (doctorate)	Occupation $\in$ {Engineer, Lawyer, Executive board of an international company}

Attribute	Possible values	Randomization restriction
Occupation	• Retail salesperson	Education ∈ {Vocational education (VET), Higher vocational education}
	• Engineer	Education ∈ {University/ETH (master) University/ETH (doctorate)}
	• Lawyer	Education ∈ {University/ETH (master) University/ETH (doctorate)}
	• Executive board of an international company	Education ∈ {University/ETH (master) University/ETH (doctorate)}
Gross monthly salary before entering the legislature	• CHF 5,000	Occupation ∈ {Retail salesperson, Engineer, Lawyer}
	• CHF 10,000	–
	• CHF 30,000	Occupation ∈ {Engineer, Lawyer, Executive board of an international company}
Residence	• Lives for 6 years in respondent's canton	–
	• Lives since birth in respondent's canton	–

3 Online Panel, Sample, and Weights

The survey was conducted on a random quota sample of 4,520 respondents. The respondents were drawn from an online panel maintained by the LINK Institute, a Swiss market research firm.[1] All respondents were Swiss citizens between 18 and 79 years of age. We used post-stratification weights to make the sample more representative of the population (the population is Swiss citizens between the ages of 18 and 79 years). Specifically, we constructed the post-stratification weight for respondent i as follows (Little 1993):

$$w_i = r \left(P_{j[i]}/r_{j[i]} \right) \left(P_{k[i]}/r_{k[i]} \right) \left(P_{l[i]}/r_{l[i]} \right), \tag{5}$$

where r is the total number of respondents in the sample, $r_{j[i]}$, $r_{k[i]}$, and $r_{l[i]}$ are the number of respondents in respondent i's linguistic region-gender-age stratum j, work status stratum k, and household size stratum l, respectively, and $P_{j[i]}$, $P_{k[i]}$, and $P_{l[i]}$ are the population proportions for i's strata j, k, and l, respectively. We then adjusted the $\{w_i\}$ from Equation (5) so that $\sum_{i=1}^{n} w_i = n$. Weights range between 0.498 and 3.138. Table S3 presents the strata and the distribution of strata in the raw sample, the weighted sample, and the population.

---

[1]With more than 130,000 panelists, the LINK online panel is the largest online panel in Switzerland. Panelists are randomly selected using RDD (Random Digit Dialing) sampling techniques and self-registration or registration of others is not allowed (see `https://www.link.ch/?page_id=3651&lang=en#1609`, last accessed on March 13, 2018.)

Table S3: Distribution of Socio-Demographic Characteristics

Socio-demographic group	Raw sample	Weighted sample	Population
German-speaking, male, 18-29	0.077	0.068	0.070
German-speaking, male, 30-44	0.106	0.079	0.085
German-speaking, male, 45-59	0.113	0.102	0.109
German-speaking, male, 60-79	0.077	0.109	0.097
German-speaking, female, 18-29	0.073	0.067	0.069
German-speaking, female, 30-44	0.104	0.081	0.086
German-speaking, female, 45-59	0.104	0.109	0.113
German-speaking, female, 60-79	0.069	0.122	0.108
French-speaking, male, 18-29	0.026	0.023	0.023
French-speaking, male, 30-44	0.036	0.023	0.025
French-speaking, male, 45-59	0.034	0.028	0.030
French-speaking, male, 60-79	0.020	0.031	0.027
French-speaking, female, 18-29	0.025	0.022	0.022
French-speaking, female, 30-44	0.034	0.025	0.026
French-speaking, female, 45-59	0.036	0.032	0.033
French-speaking, female, 60-79	0.020	0.037	0.034
Italian-speaking, male, 18-29	0.006	0.004	0.004
Italian-speaking, male, 30-44	0.008	0.004	0.004
Italian-speaking, male, 45-59	0.006	0.006	0.006
Italian-speaking, male, 60-79	0.004	0.006	0.006
Italian-speaking, female, 18-29	0.005	0.004	0.004
Italian-speaking, female, 30-44	0.007	0.005	0.005
Italian-speaking, female, 45-59	0.007	0.007	0.007
Italian-speaking, female, 60-79	0.003	0.008	0.007
Working	0.712	0.610	0.671
Not working	0.288	0.390	0.329
Household size of 1-2	0.513	0.590	0.535
Household size of 3 or more	0.487	0.410	0.465

Note: Population data were obtained from the Swiss Federal Statistical Office.

4   AMCEs of Individual Candidate Attributes on Vote Propensity

Figure S1 shows the point estimates and 95% confidence intervals (CIs) for the average marginal component effects (AMCEs) of individual candidate attributes on respondents' vote propensity.

Figure S1: AMCEs of Candidate Attributes on Vote Propensity
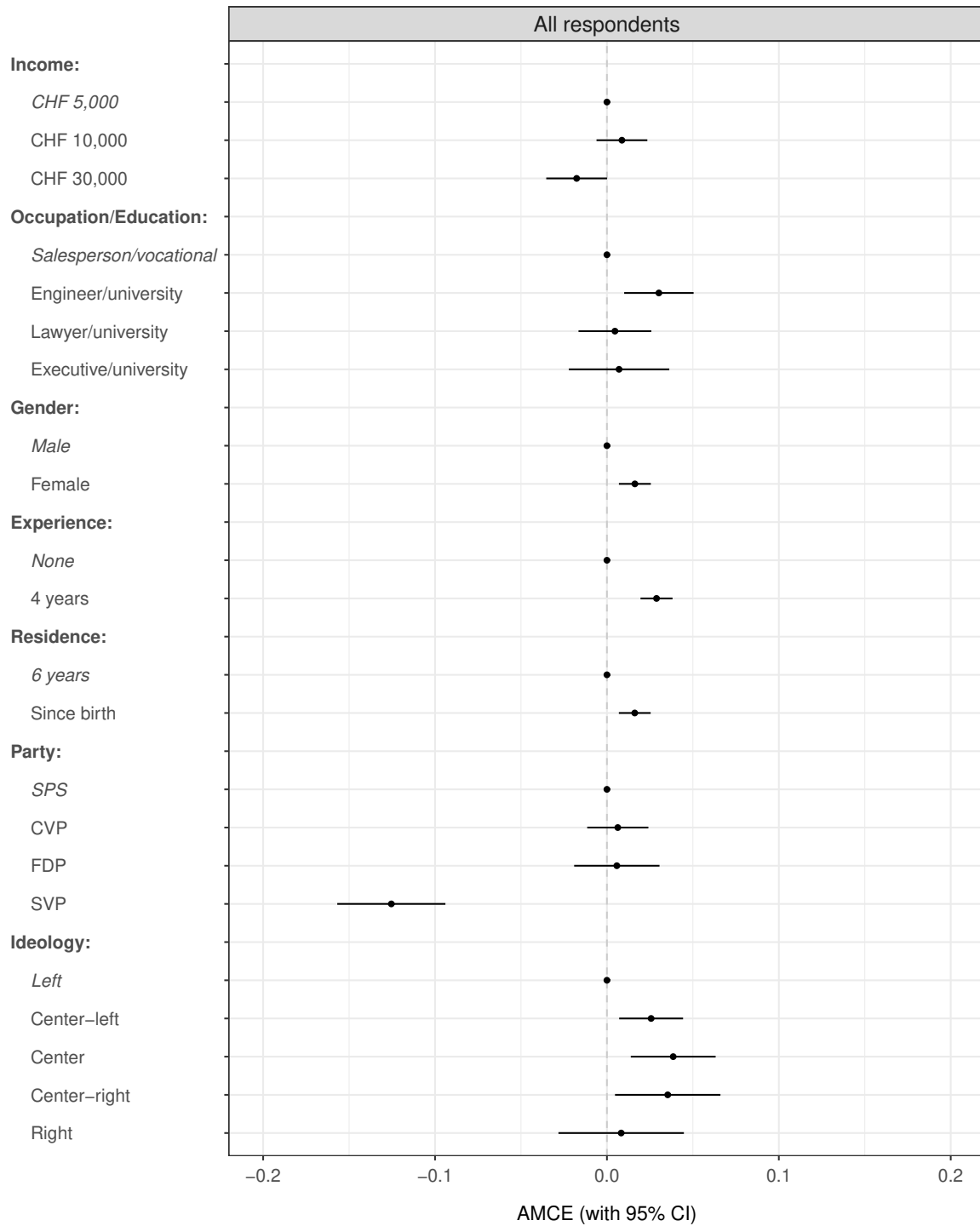
Note: The reference category for each attribute is shown in italics.

5   MMs and AMCEs of Individual Candidate Attributes on Forced Vote Choice, Competence, and Empathy

Figures S2 and S3 show the MMs and AMCEs of individual candidate attributes on respondents' forced vote choice. Figures S4 and S5 show the MMs and AMCEs of individual candidate attributes on respondents' perception of candidate competence. Figures S6 and S7 show the MMs and AMCEs of individual candidate attributes on respondents' perception of candidate empathy.

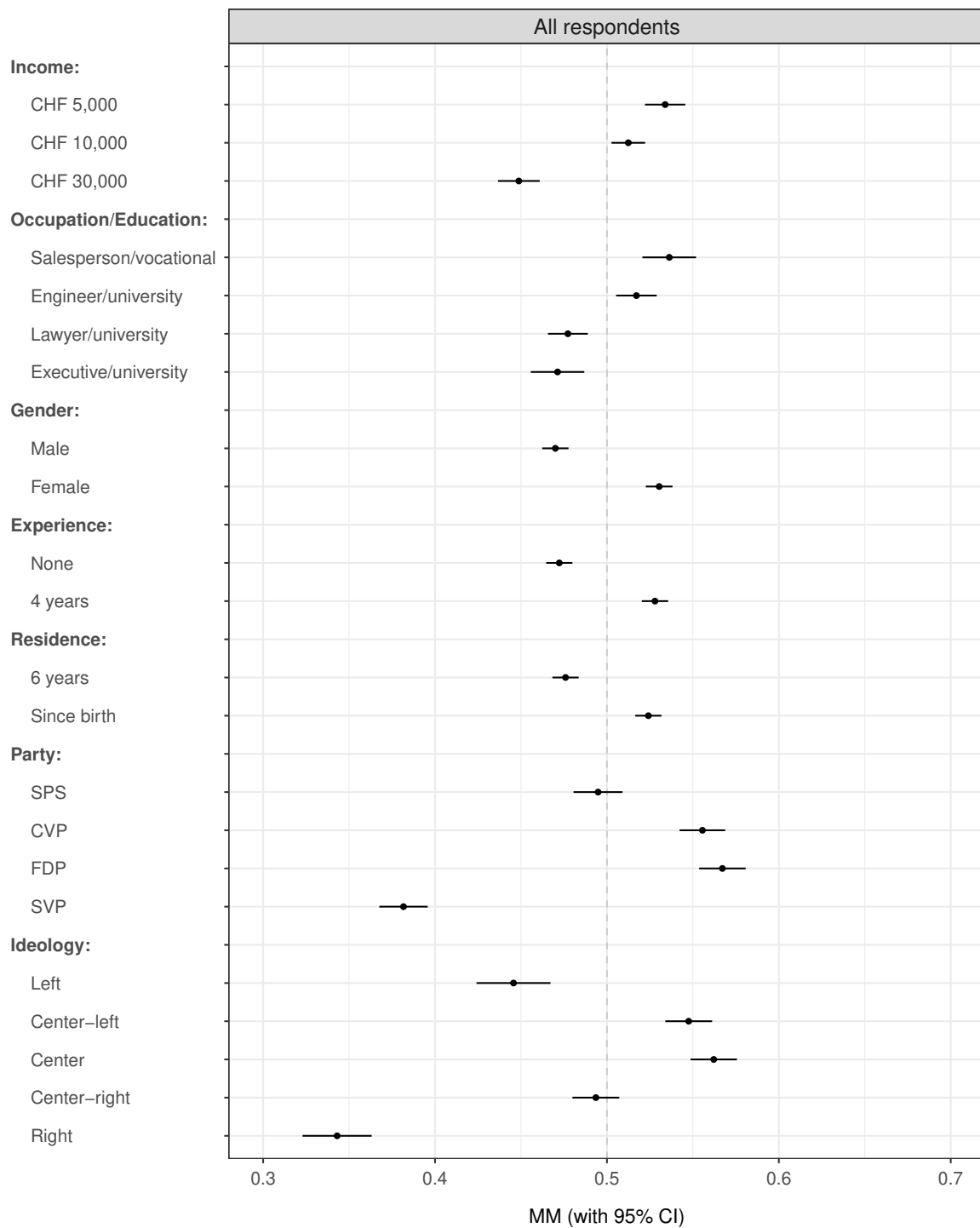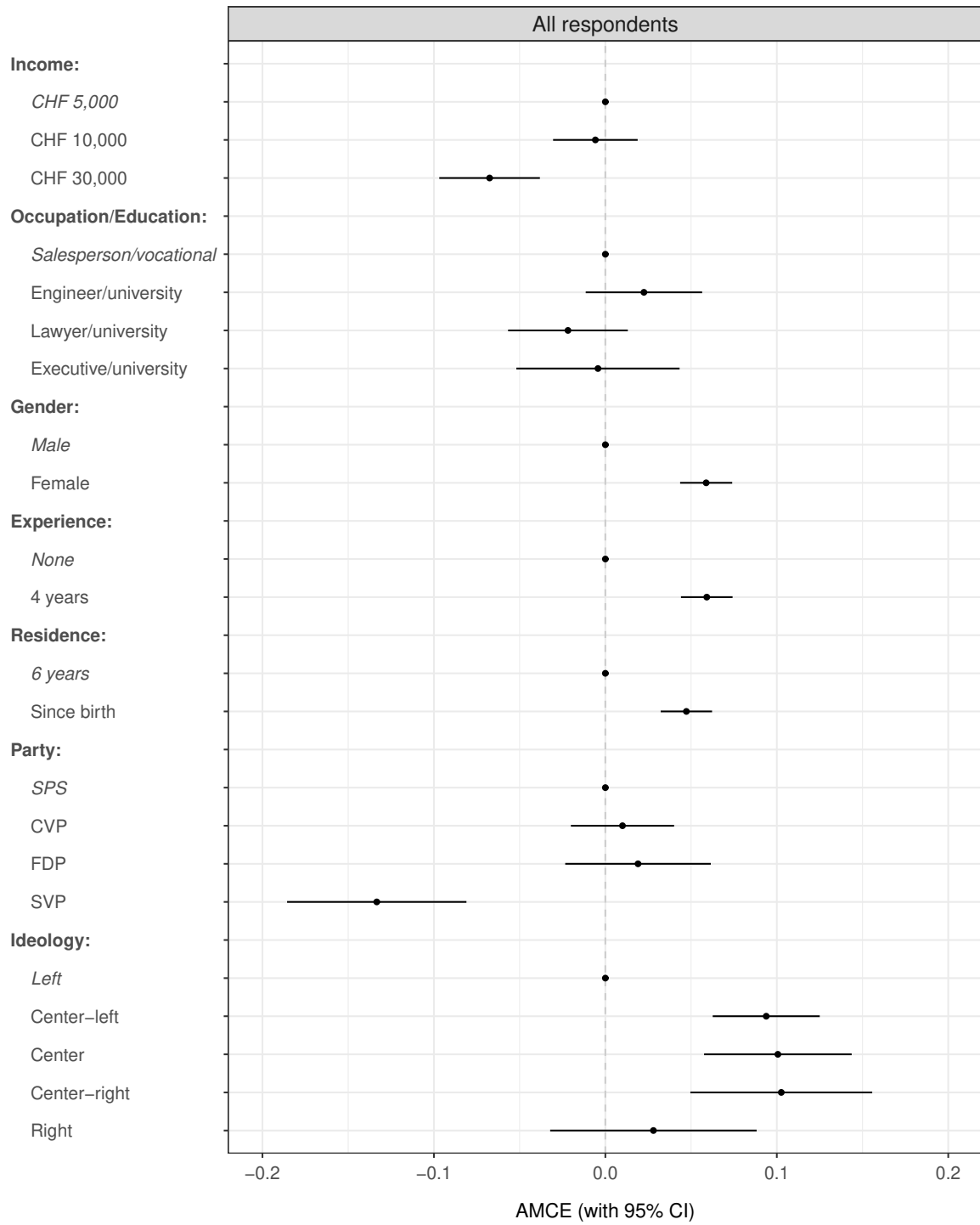Figure S2: MMs of Candidate Attributes on Forced Vote Choice

Figure S3: AMCEs of Candidate Attributes on Forced Vote Choice

Note: The reference category for each attribute is shown in italics.

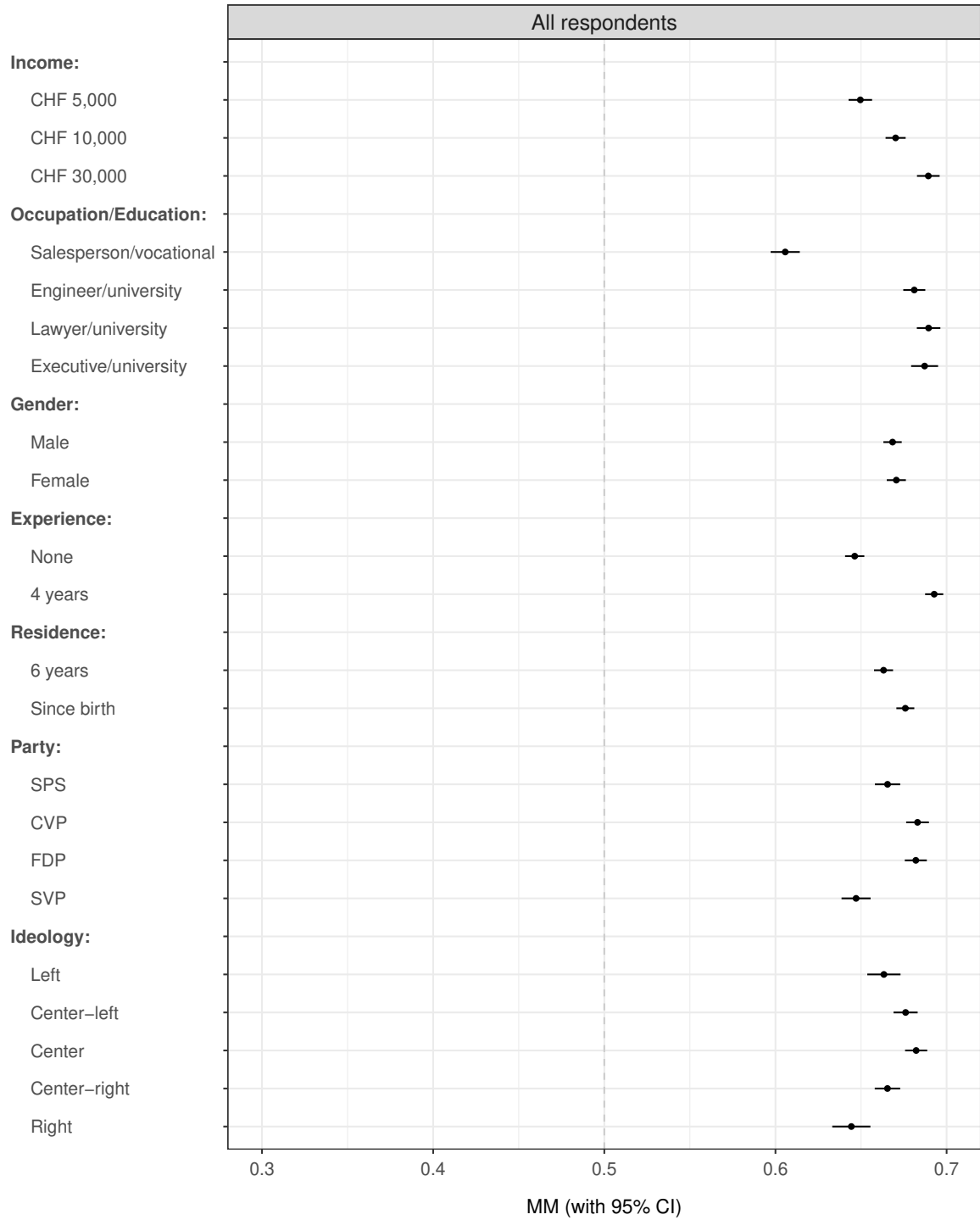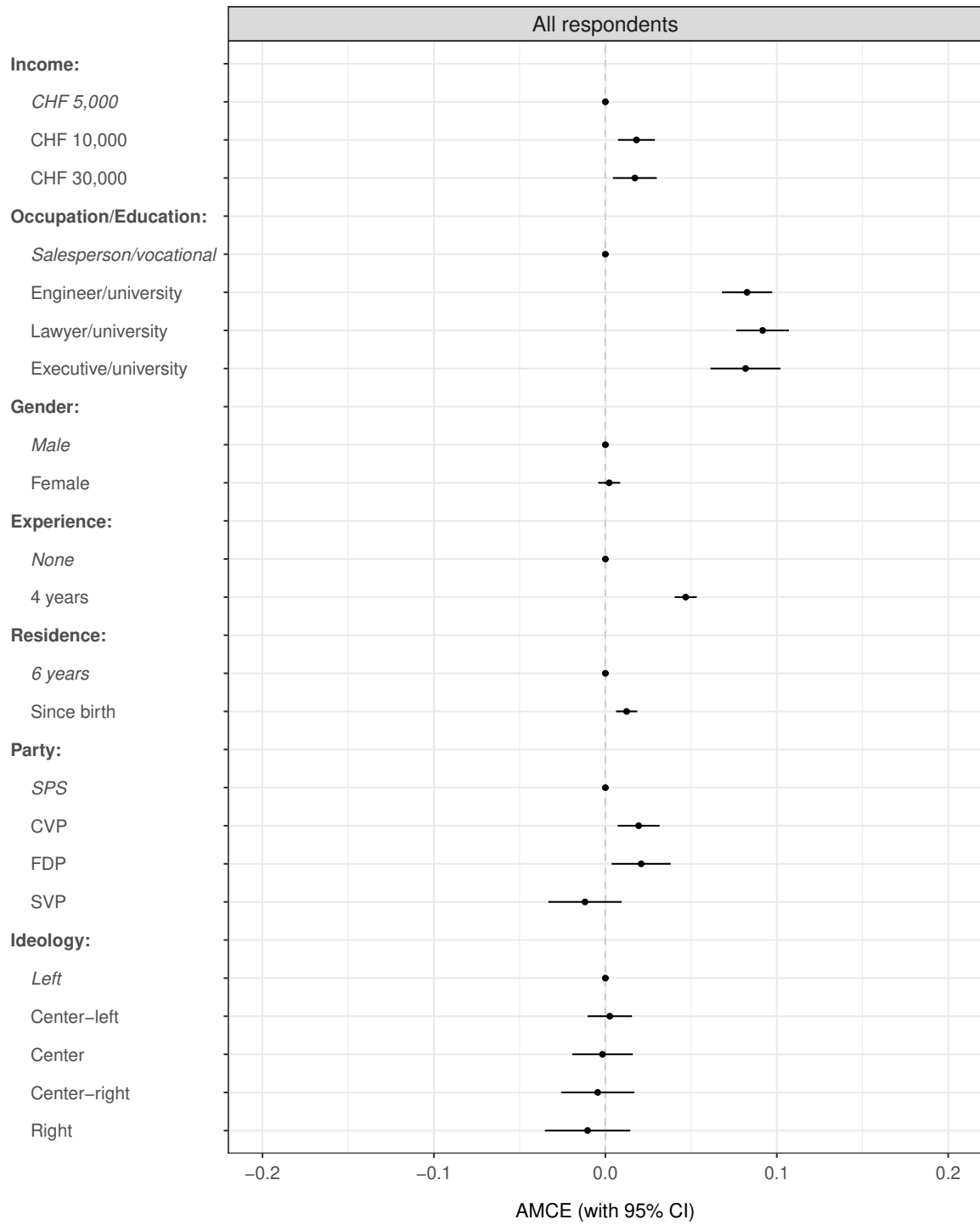Figure S4: MMs of Candidate Attributes on Perceived Candidate Competence

Figure S5: AMCEs of Candidate Attributes on Perceived Candidate Competence

Note: The reference category for each attribute is shown in italics.

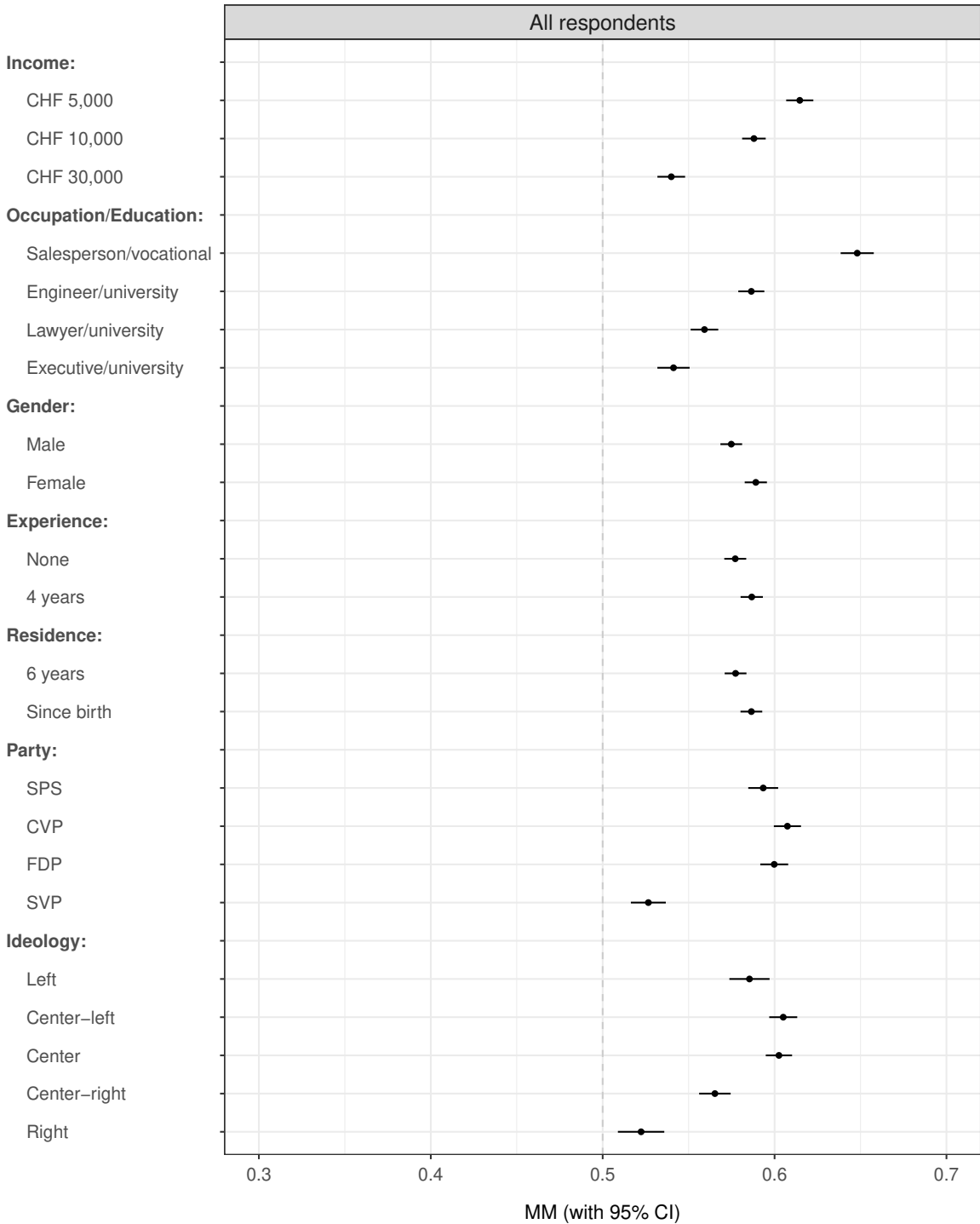Figure S6: MMs of Candidate Attributes on Perceived Candidate Empathy
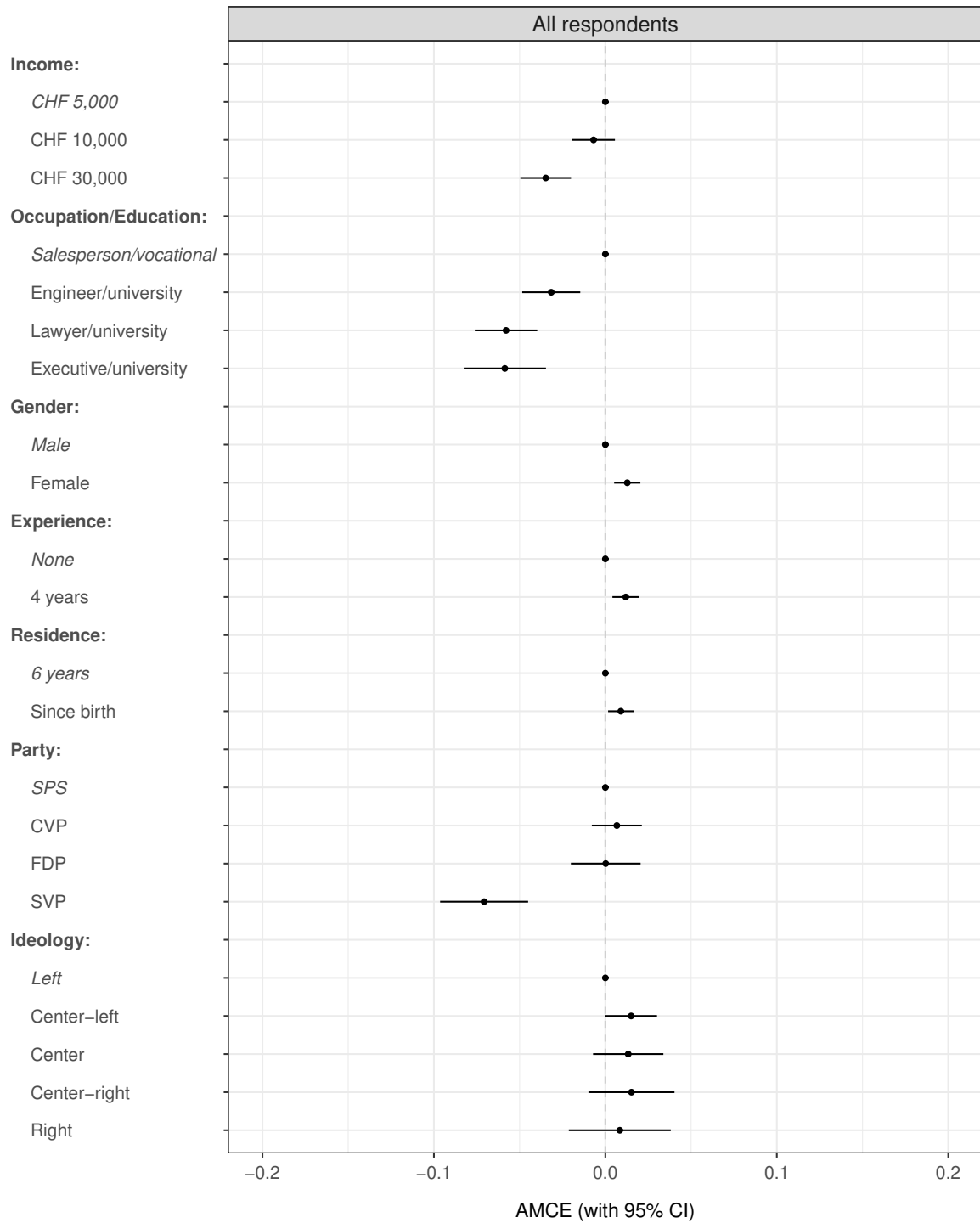
Figure S7: AMCEs of Candidate Attributes on Perceived Candidate Empathy

Note: The reference category for each attribute is shown in italics.

6 Comparison of Respondent Support Across All Combinations of Candidate Occupation, Education, and Income

Figure S8 shows the MMs of all combinations of candidate occupation, education, and income on respondents' vote propensity.

Figure S8: MMs of All Combinations of Candidate Occupation, Education, and Income on Vote Propensity

Note: The combinations that we use to represent our class profiles are shown in black color.

7 MMs and AMCEs of Candidates' Social Class on Vote Propensity, Forced Vote Choice, Competence, and Empathy

Figure S9 shows the AMCEs of candidates' social class on respondents' vote propensity. Figures S10 and S11 show the MMs and AMCEs of candidates' social class on respondents' forced vote choice. Figures S12 and S13 show the MMs and AMCEs of candidates' social class on respondents' perception of candidate competence. Figures S14 and S15 show the MMs and AMCEs of candidates' social class on respondents' perception of candidate empathy.

Figure S9: AMCEs of Candidates' Social Class on Vote Propensity
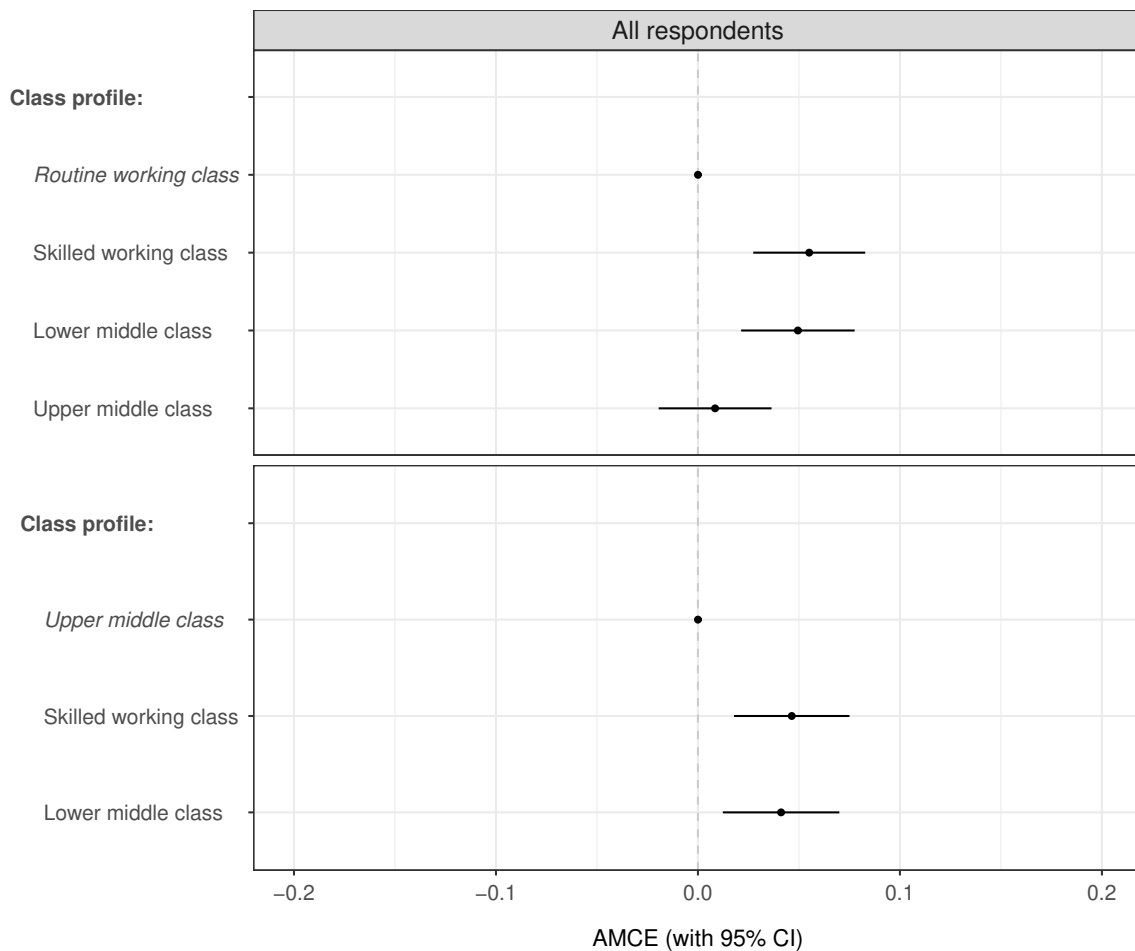
Note: The reference category is shown in italics.

Figure S10: MMs of Candidates' Social Class on Forced Vote Choice

Figure S11: AMCEs of Candidates' Social Class on Forced Vote Choice

Note: The reference category is shown in italics.

Figure S12: MMs of Candidates' Social Class on Perceived Candidate Competence
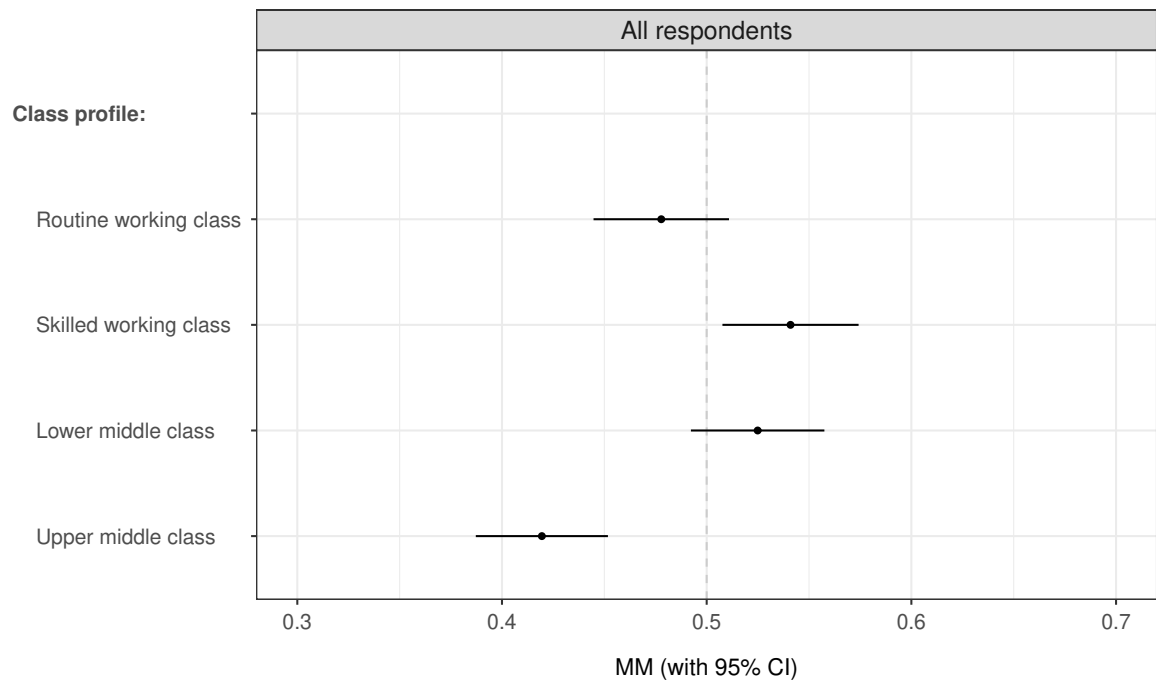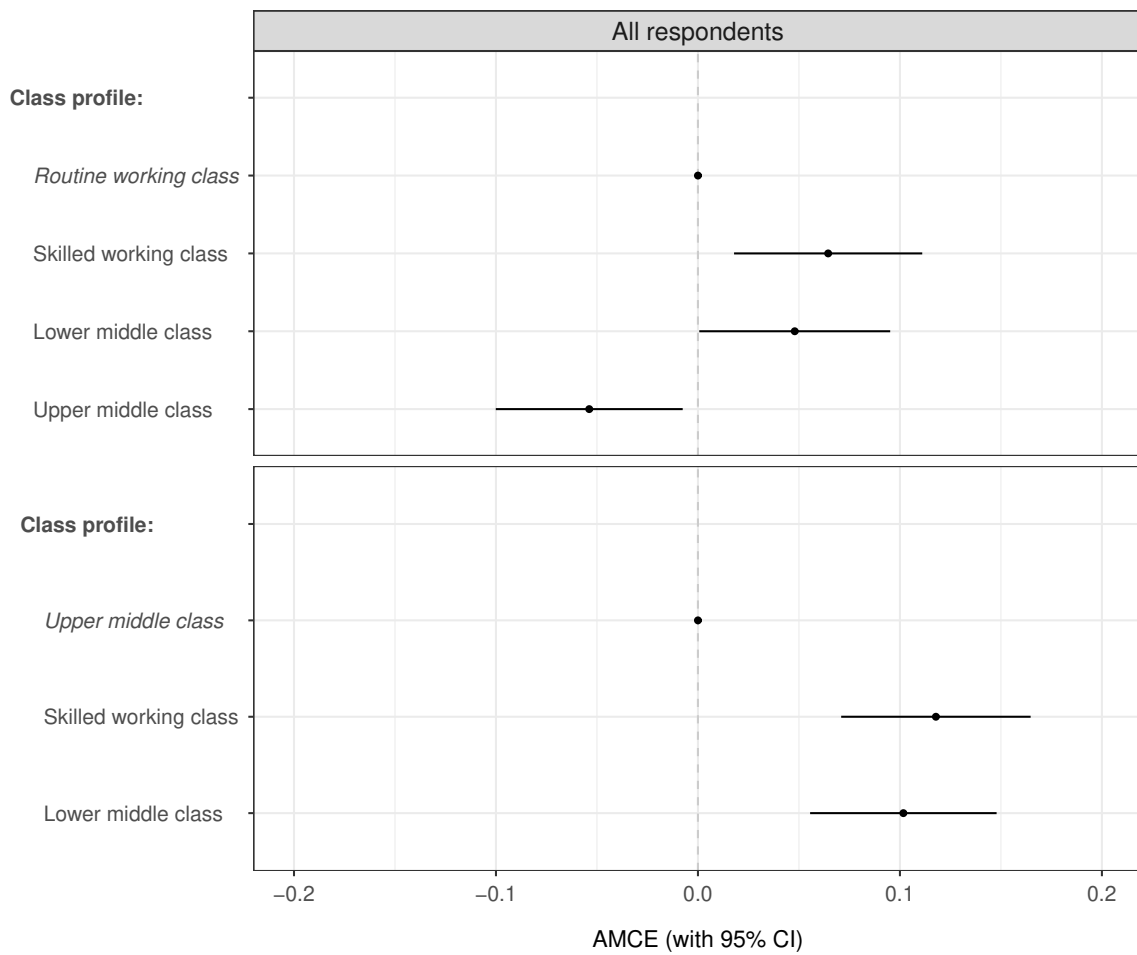
Figure S13: AMCEs of Candidates' Social Class on Perceived Candidate Competence

Note: The reference category is shown in italics.

Figure S14: MMs of Candidates' Social Class on Perceived Candidate Empathy

Figure S15: AMCEs of Candidates' Social Class on Perceived Candidate Empathy

8 AMCEs of Candidates' Social Class on Vote Propensity by Respondents' Social Class

Figure S16 shows the AMCEs of candidates' social class on respondents' vote propensity by respondents' social class.

Figure S16: AMCEs of Candidates' Social Class on Vote Propensity by Respondents' Social Class
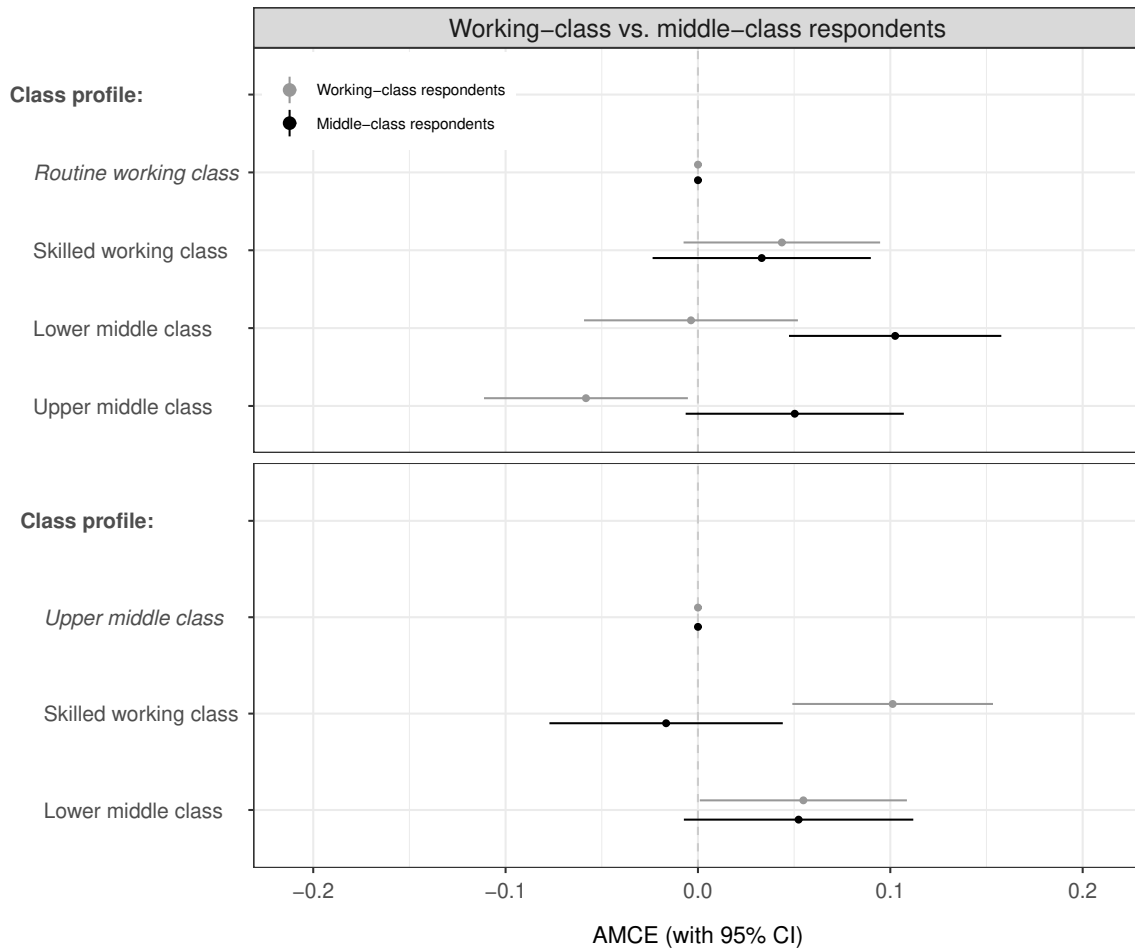
Note: The reference category is shown in italics.

9 Respondents With Low Education and High Income or High Education and Low Income

In Figures 4-6 in the article, we operationalized "working-class respondents" as respondents with secondary education or less and below-median household income ($\leq$ CHF 8,000) and "middle-class respondents" as respondents with tertiary education and above-median household income. We excluded respondents with secondary education or less and above-median household income and respondents with tertiary education and below-median household income from the analysis. In this section, we replicate the analysis including the latter respondents as a separate group (we label them "other respondents"). Figures S17 and S18 show the MMs and AMCEs of candidates' social class on respondents' vote propensity. Figures S19 and S20 show the MMs and AMCEs of candidates' social class on respondents' perception of candidate competence. Figures S21 and S22 show the MMs and AMCEs of candidates' social class on respondents' perception of candidate empathy.

Figure S17: MMs of Candidates' Social Class on Vote Propensity by Respondents' Social Class

Figure S18: AMCEs of Candidates' Social Class on Vote Propensity by Respondents' Social Class

Note: The reference category is shown in italics.

Figure S19: MMs of Candidates' Social Class on Perceived Candidate Competence by Respondents' Social Class
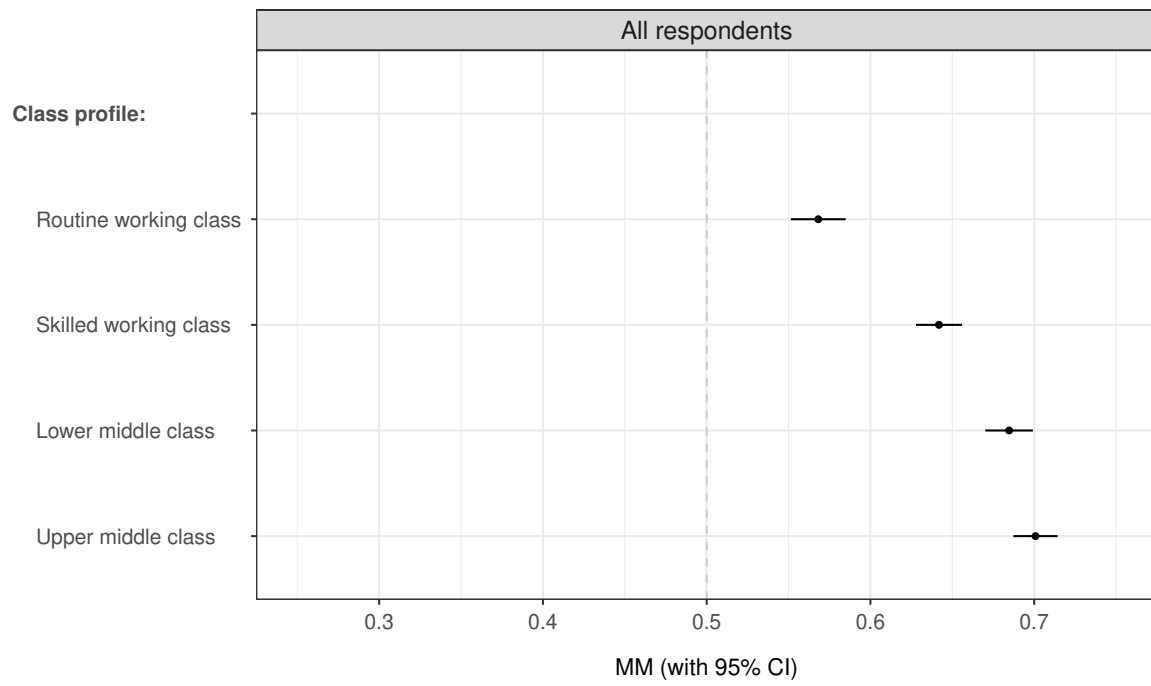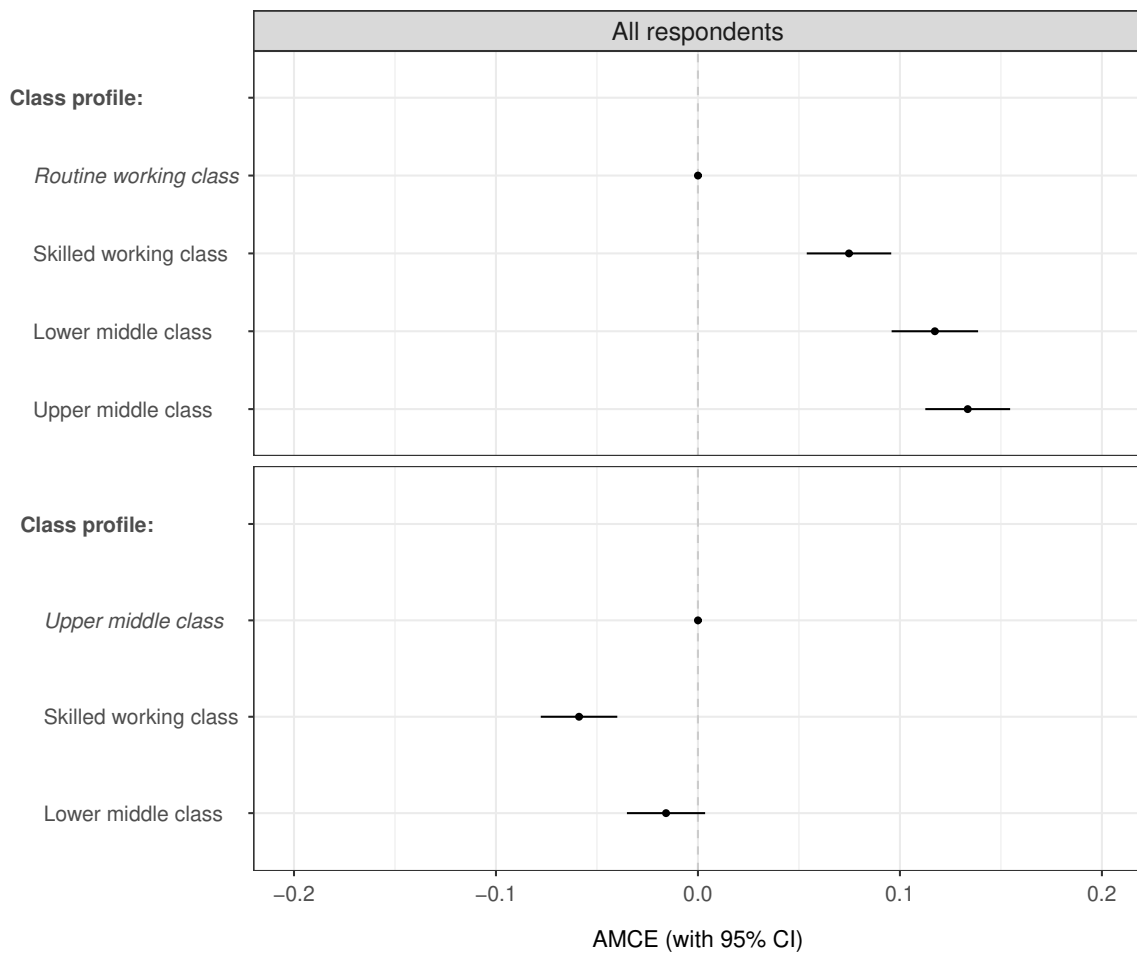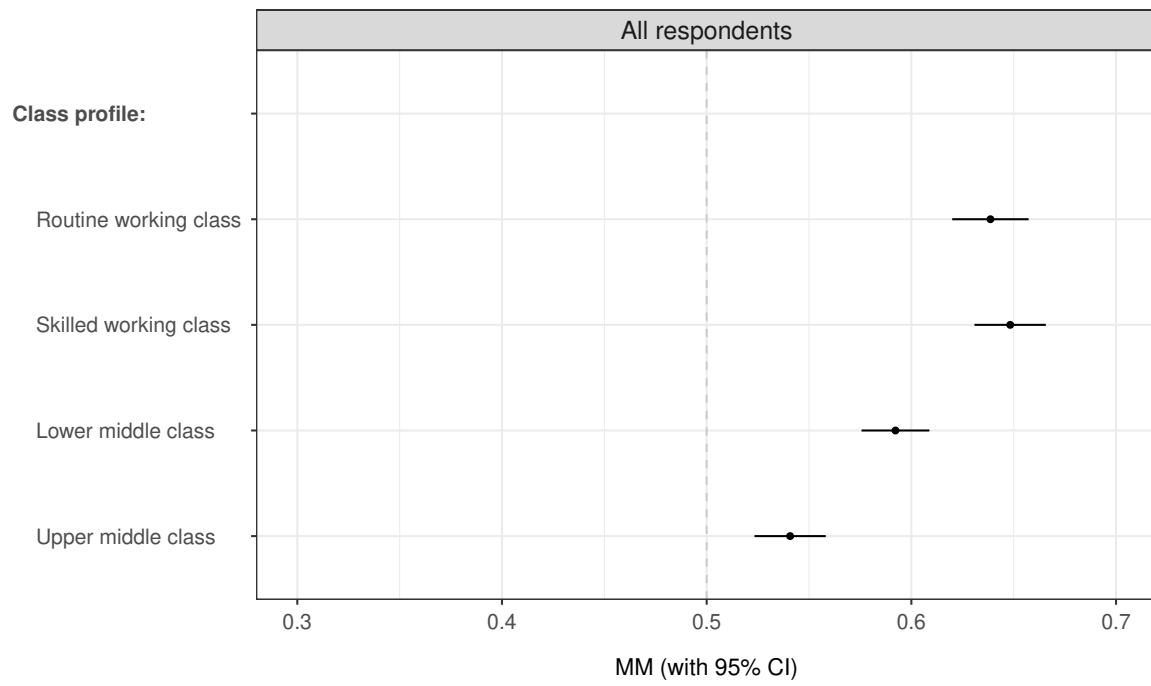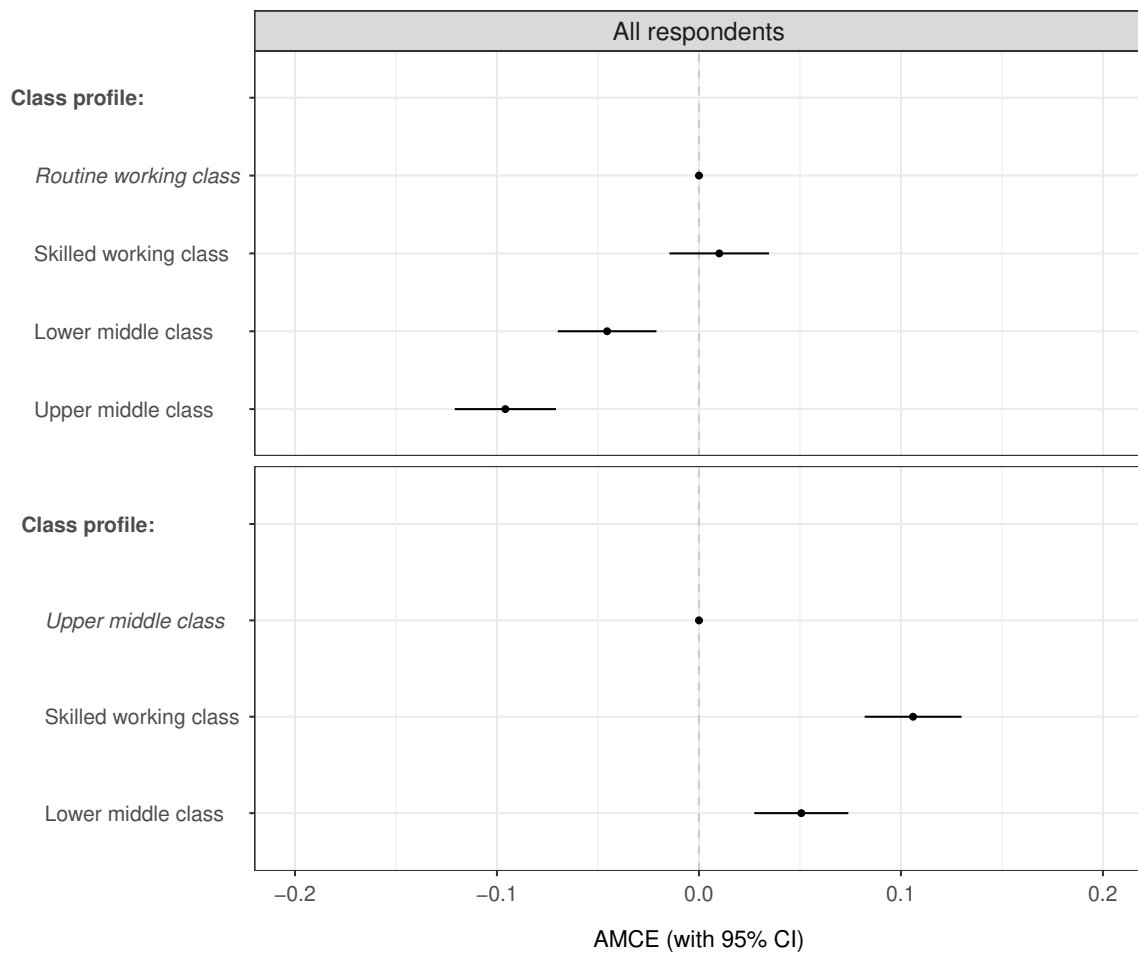
Figure S20: AMCEs of Candidates' Social Class on Perceived Candidate Competence by Respondents' Social Class

Note: The reference category is shown in italics.

Figure S21: MMs of Candidates' Social Class on Perceived Candidate Empathy by Respondents' Social Class

Figure S22: AMCEs of Candidates' Social Class on Perceived Candidate Empathy by Respondents' Social Class
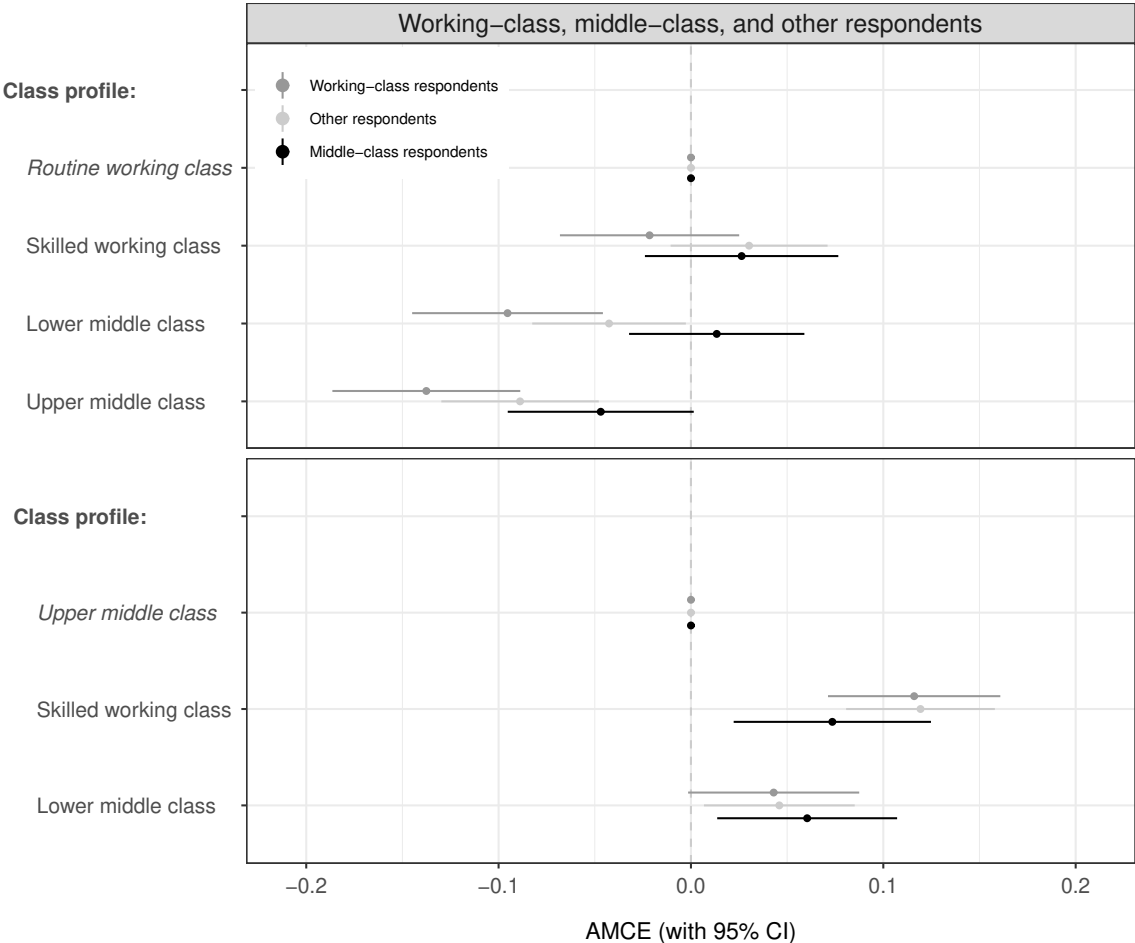
Note: The reference category is shown in italics.

10 Definition of Respondents' Social Class Based on Education, Income, and Occupation

In Figures 4-6 in the article, we proxied respondents' social class by education and household income. In this section, we include occupation along with education and household income as a criterion for distinguishing between working-class and middle-class respondents. Specifically, we classify respondents as working-class if they have secondary education or less, a household income below the median, and a working-class occupation and as middle-class if they have tertiary education, a household income above the median, and a middle-class occupation. We relied on the 16-category class schema developed by Oesch (2006a,b) to define working-class and middle-class occupations: working-class occupations are occupations that fall into categories 7-8 (skilled or low-skilled manual), 11-12 (skilled or unskilled clerks), or 15-16 (skilled or low-skilled service), while middle-class occupations are occupations that fall into categories 1-6 (large employers, self-employed professionals, small business owners with or without employees, technical experts, and technicians), 9-10 (higher-grade or lower-grade managers and administrators), or 13-14 (socio-cultural professionals or semi-professionals) (`https://people.unil.ch/danieloesch/scripts/`, last accessed on March 8, 2019). Figures S23 and S24 show the MMs and AMCEs of candidates' social class on respondents' vote propensity. Figures S25 and S26 show the MMs and AMCEs of candidates' social class on respondents' perception of candidate competence. Figures S27 and S28 show the MMs and AMCEs of candidates' social class on respondents' perception of candidate empathy.

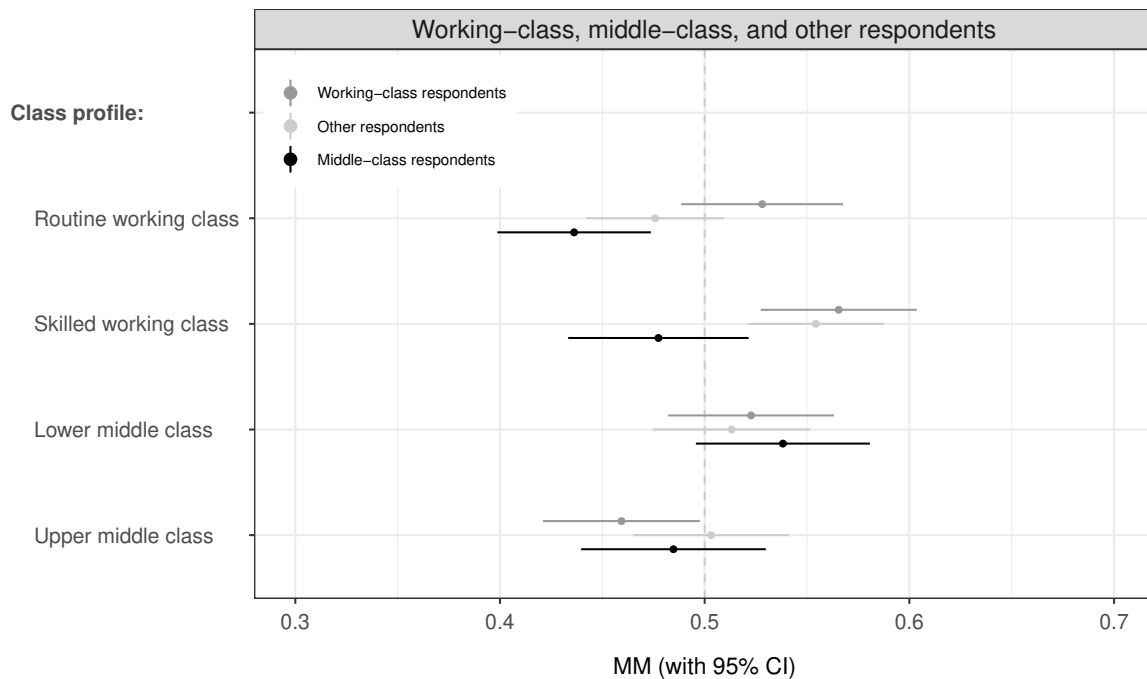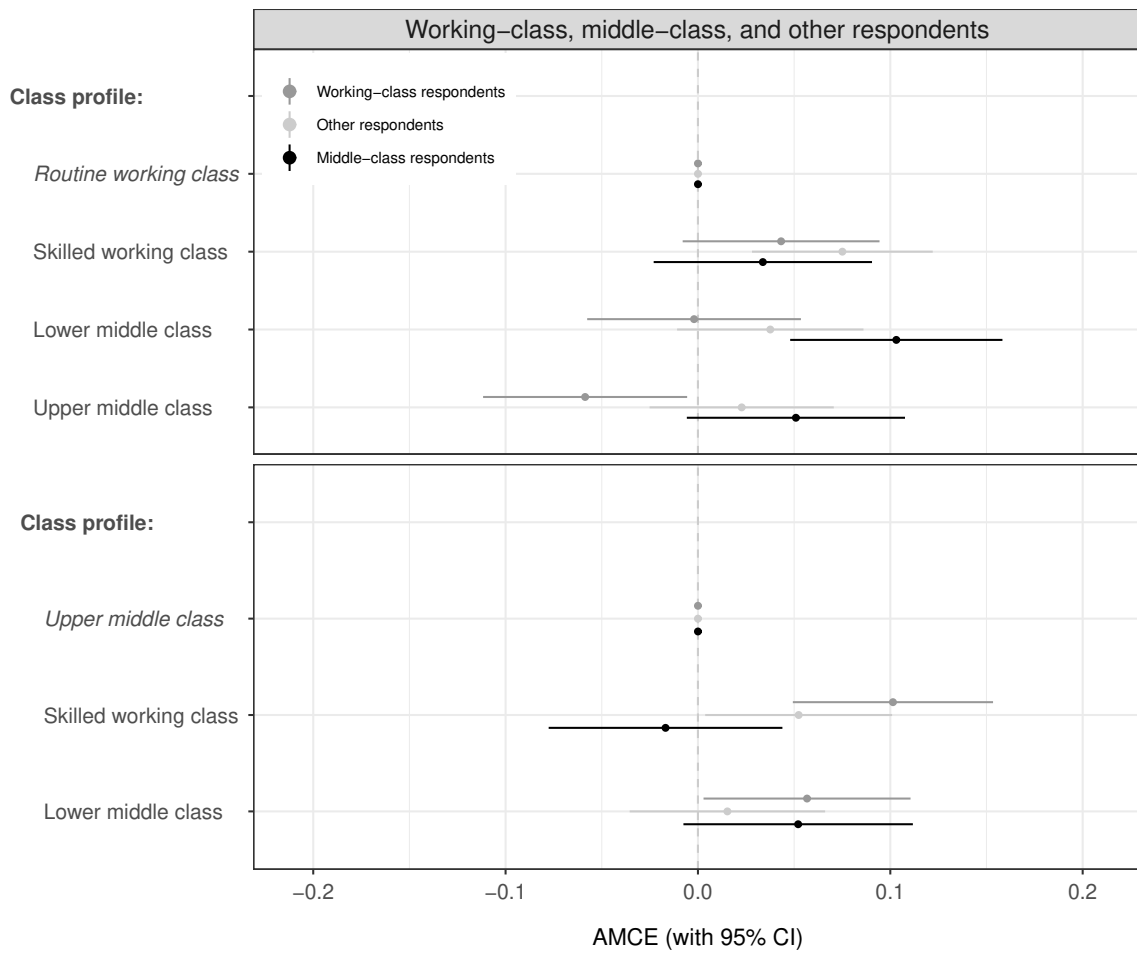Figure S23: MMs of Candidates' Social Class on Vote Propensity by Respondents' Social Class
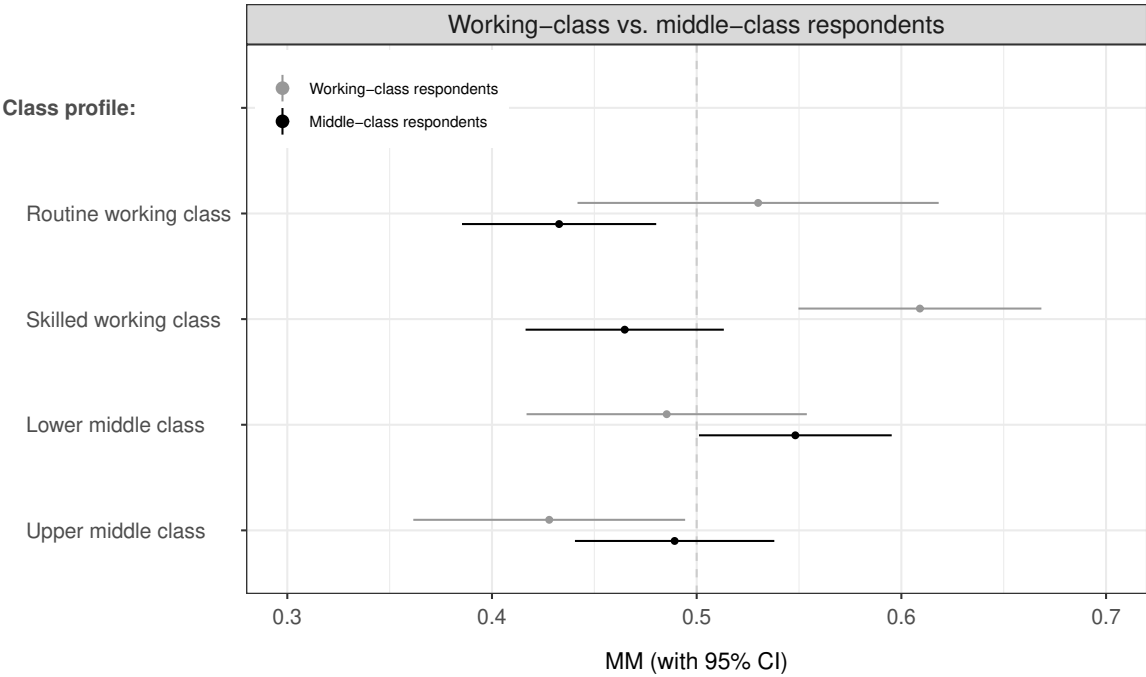
Figure S24: AMCEs of Candidates' Social Class on Vote Propensity by Respondents' Social Class
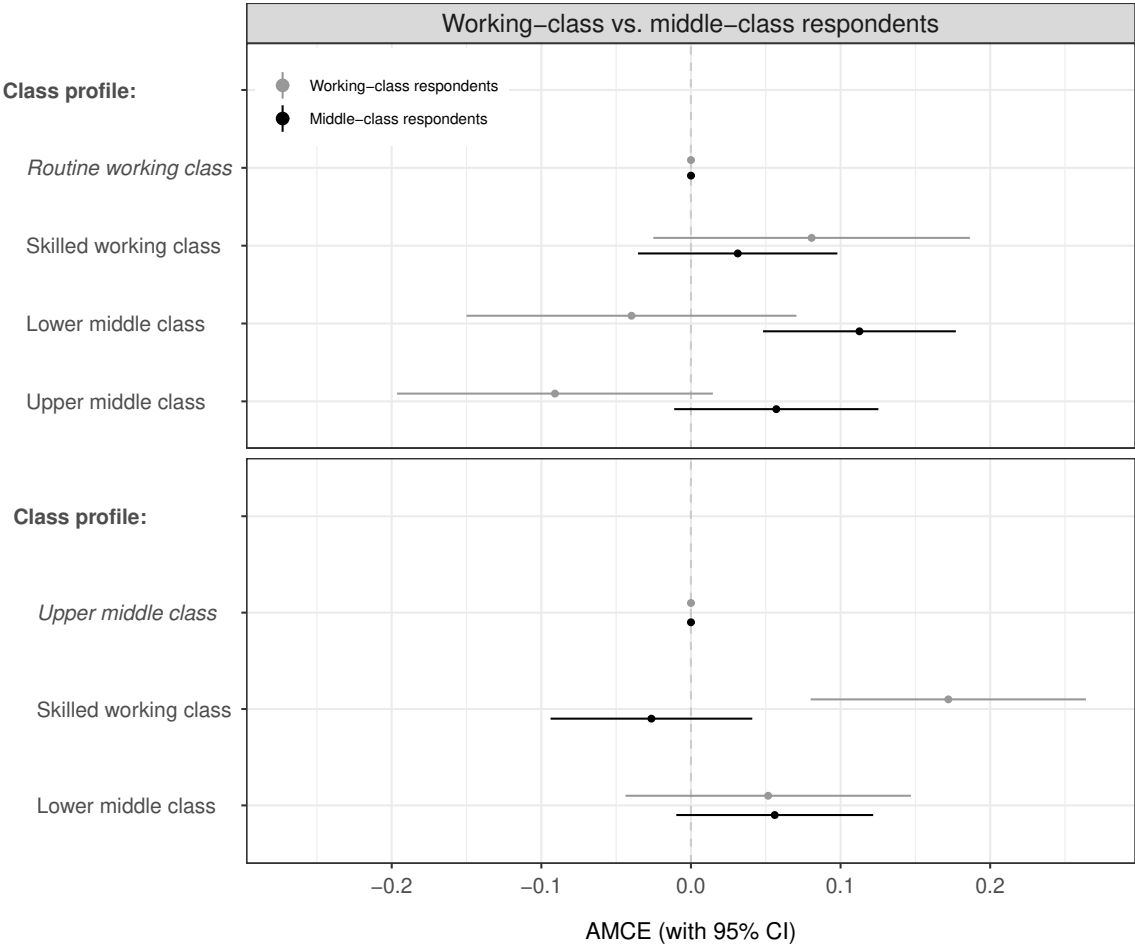
Figure S25: MMs of Candidates' Social Class on Perceived Candidate Competence by Respondents' Social Class
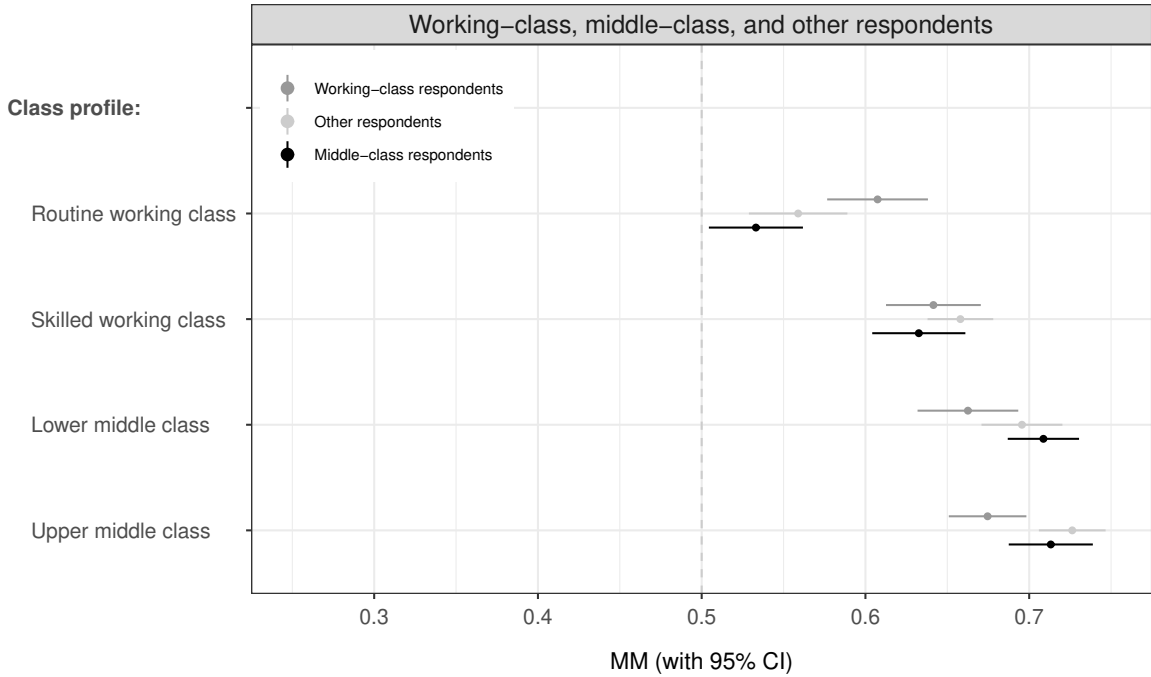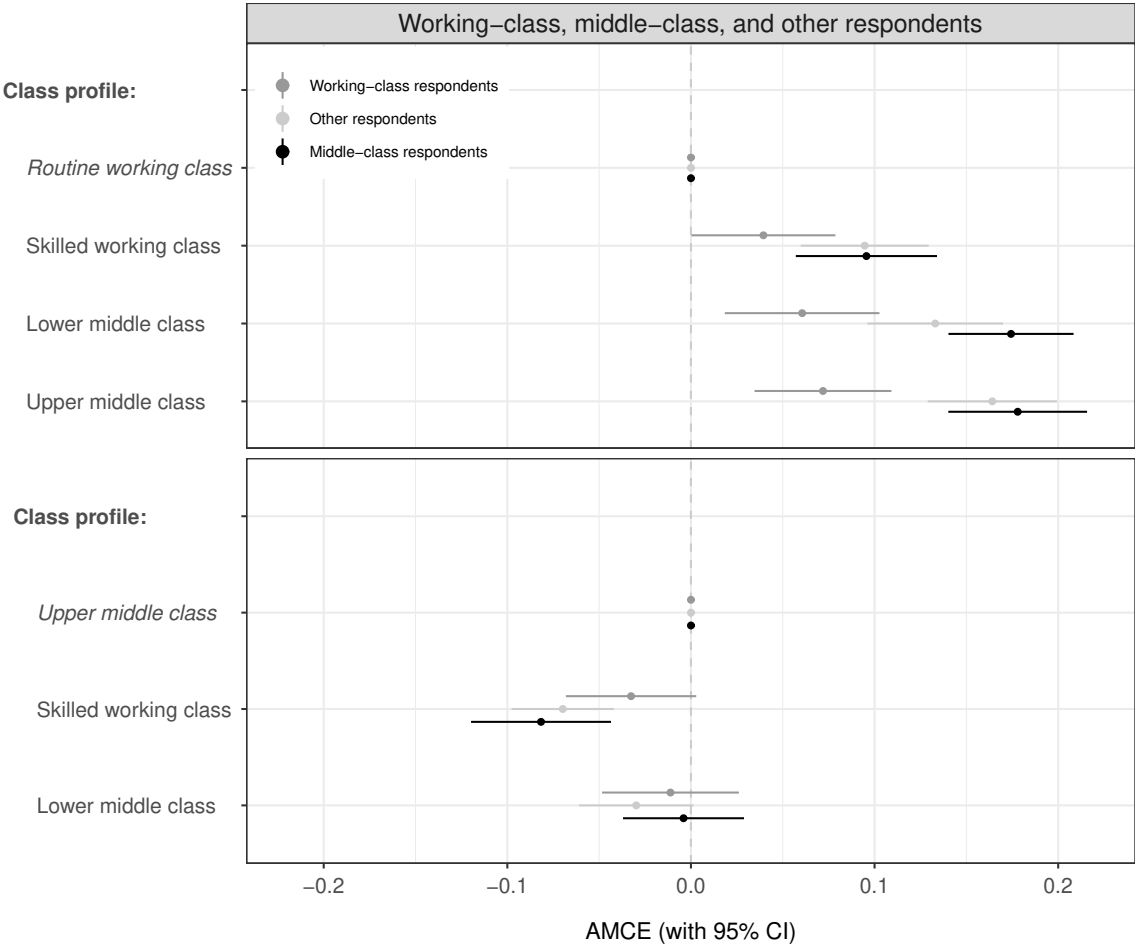
Figure S26: AMCEs of Candidates' Social Class on Perceived Candidate Competence by Respondents' Social Class

Note: The reference category is shown in italics.

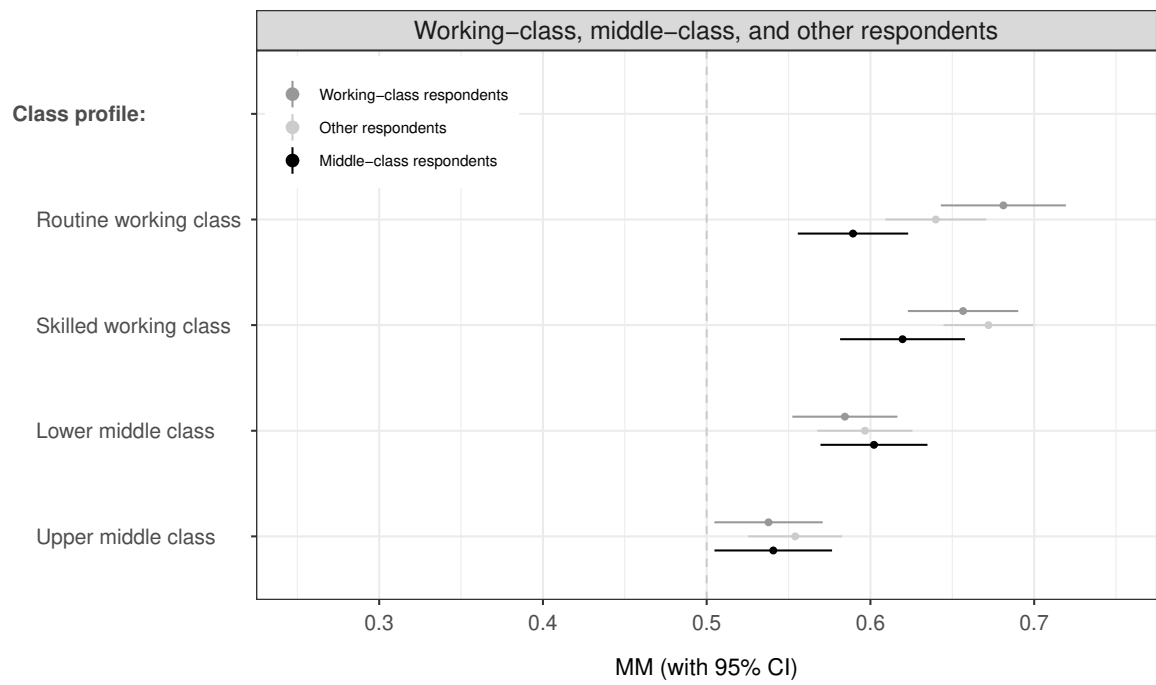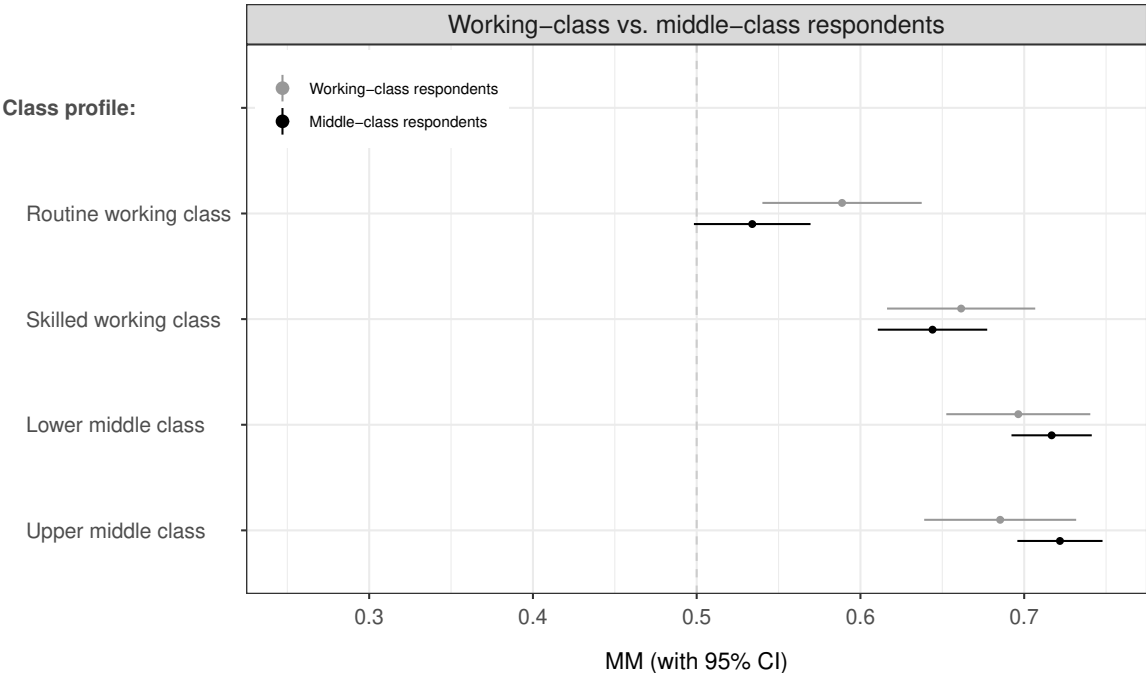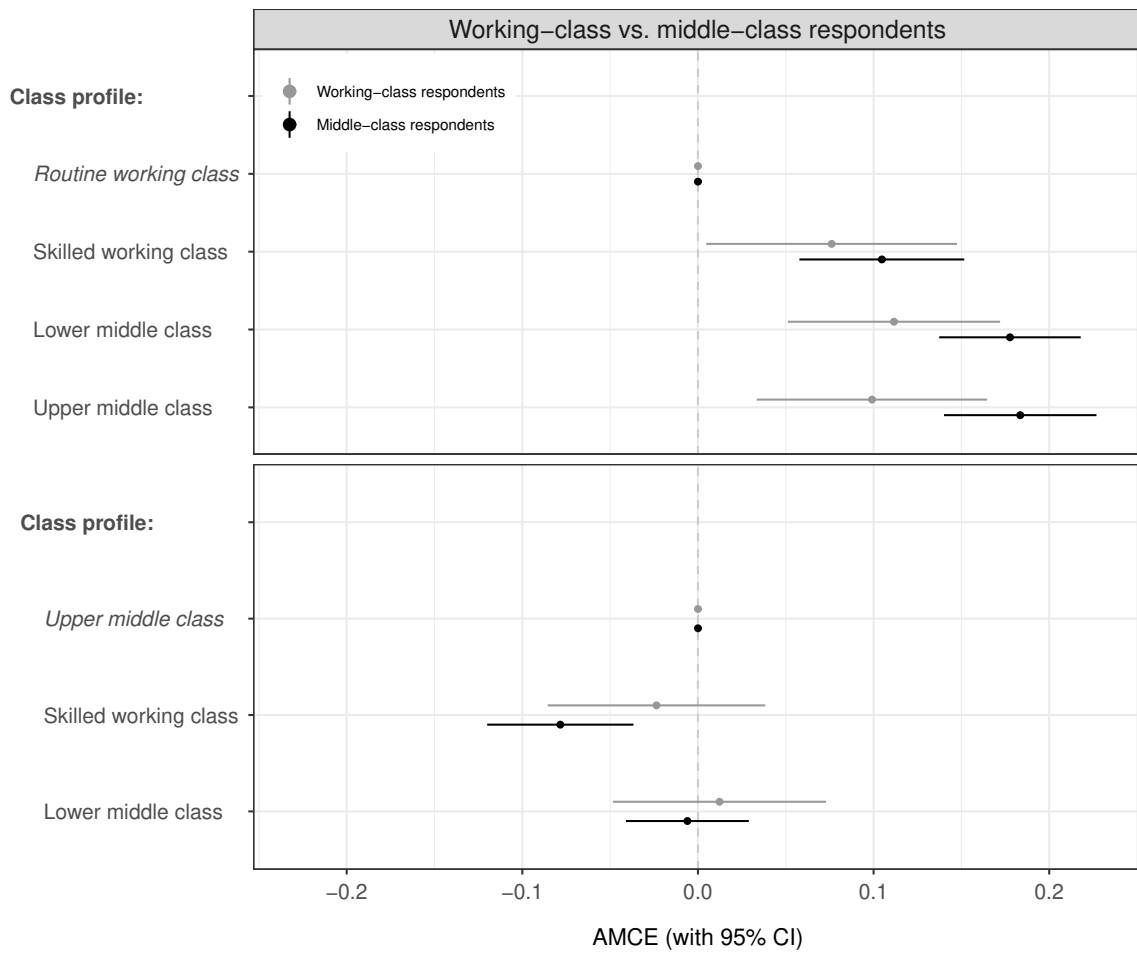Figure S27: MMs of Candidates' Social Class on Perceived Candidate Empathy by Respondents' Social Class
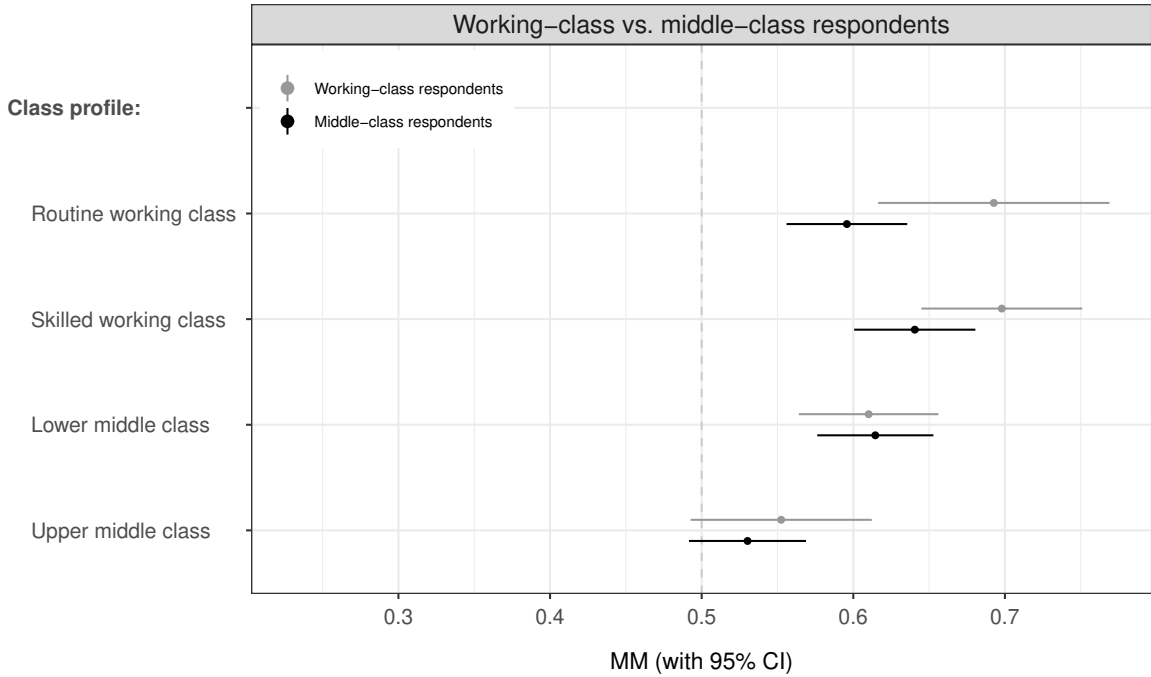
Figure S28: AMCEs of Candidates' Social Class on Perceived Candidate Empathy by Respondents' Social Class
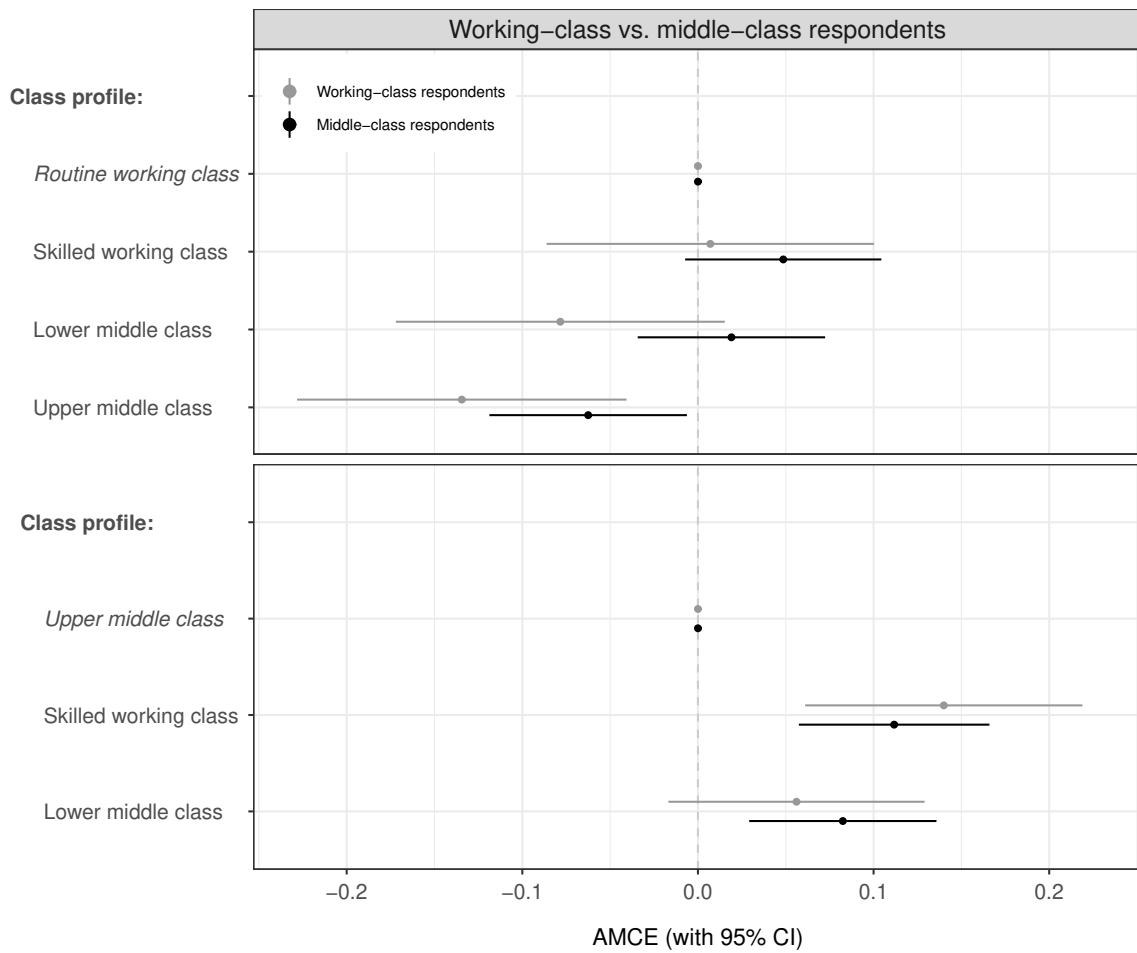
11 Effect of Candidates' Social Class on their Electoral Performance Based on Observational Data

Table S4 shows the coding scheme we used to classify the "real-world" candidates running in the 2007 election to the lower chamber of the Swiss parliament (National Council) into routine working-class candidates, skilled working-class candidates, lower middle-class candidates, and upper middle-class candidates as well as our definition of class profiles for the hypothetical candidates presented in the survey experiment.

Table S4: Class Profiles for Real-World Candidates and Hypothetical Candidates

	Routine Working Class	Skilled Working Class	Lower Middle Class	Upper Middle Class
Class profiles for real-world candidates				
Occupation	Unskilled workers, Skilled workers	Skilled workers, Small business owners	Lower-grade service occupations	Higher-grade service occupations
Education	Secondary education	Higher vocational education	University of Applied Sciences, University	University
Household income	$\leq 8,000$	6,001-12,000	$\geq 8,001$	$> 12,000$
Class profiles for hypothetical candidates				
Occupation	Retail salesperson	Retail salesperson	Engineer	Lawyer
Education	Vocational education	Higher vocational education	MA degree	PhD degree
Salary	5,000	10,000	10,000	30,000

Data on real-world candidates' occupations, educations, and household incomes come from a survey conducted among all candidates running in the 2007 election to the Swiss parliament. Specifically, data on education and household income come from the Selects candidate survey (FORS 2009) while data on occupation come from the Comparative Candidates Survey (CCS 2016). The Comparative Candidates Survey relies on data compiled by the Selects candidate survey, but it has the advantage that candidates' occupations have been coded into ISCO-88 2-digits codes. Using these ISCO-88 codes together with information on the employment status of candidates allows us to classify candidates into one of the five occupational groups of Oesch's (2006*b*; 2006*a*) simplified five-class schema: unskilled workers, skilled workers, small business owners, lower-grade service occupations, and higher-grade service occupations. Guidelines on how to create Oesch's (occupational) class schema based

on ISCO codes are available online from `http://people.unil.ch/danieloesch/scripts/` (last accessed on November 9, 2019). As described in Table S4, we then combine the information on candidates' occupational group with information on their education and household income to classify them into our class profiles, viz., the routine working class, skilled working class, lower middle class, and upper middle class.

To analyze the effect of candidates' social class on their electoral success, we fit a Bayesian multilevel logistic regression model with candidates nested within party lists, which, in turn, are nested within cantons. Our outcome variable is a binary indicator that takes the value of one if a candidate was elected to parliament and zero otherwise. Our predictor variables are three indicators that take the value of one if a candidate belongs to the skilled working class, the lower middle class, and the upper middle class, respectively (the routine working class is the reference category), an indicator taking the value of one for female candidates, a (z-standardized) variable for candidate age, an indicator taking the value of one for candidates that had been pre-cumulated by their party, and a variable for candidates' normalized party list positions (so that zero indicates the bottom and one the top of each party list). All data come from the Selects candidate survey (FORS 2009), respectively the Comparative Candidates Survey (CCS 2016) for the ISCO-88 codes, with the exception of the information on candidates' party list positions, which come from the Swiss Federal Statistical Office.

We used the `rstanarm` package (Goodrich et al. 2018) in `R` to fit the multilevel logistic regression model, with default priors for all parameters (the default priors are a normal distribution with mean 0 and scale 10 for the intercept and normal distributions with mean 0 and scale 2.5 for the coefficients). We ran four chains of 8,000 iterations, discarded the first 4,000 iterations of each chain as burn-in, and used the remaining total of 16,000 iterations to generate the posterior distributions. Convergence diagnostics showed no indication of non-convergence.

12 Effects of Candidates' Social Class on Vote Propensity Under Different Degrees of Polarization

We might expect the relative importance of the class profiles of candidates to vary with polarization. Specifically, our expectation is that candidates' class profiles have an important effect on voters' choice between candidates that are ideologically close to each other and that the importance of this effect decreases with the ideological distance between candidates. To test this expectation within the confines of our survey experiment, we estimate for working-class and middle-class respondents the effect on voting propensity of their most preferred class profile relative to their least preferred class profile under three conditions: one in which respondents and candidates with the most preferred class profile hold identical ideological positions (no polarization), one in which their positions differ moderately (moderate polarization), and one in which they differ substantially (high polarization).[2] In each of these simulations, respondents and candidates with the least preferred class profile have the same ideological position.[3] As we showed in Figure 4 in the article, working-class respondents have the highest preference for the skilled working-class profile and the lowest preference for the upper middle-class profile, whereas middle-class respondents have the highest preference for the lower middle-class profile and the lowest preference for the routine working-class profile.

Presented in Figure S29, the results of this exercise support our expectation. When choosing between a candidate with the most preferred class profile and a candidate with the least preferred class profile, both having ideological positions identical to those of respondents, working-class and middle-class respondents alike are more likely to vote for the candidate with the class-profile advantage. When the candidate with the most preferred class profile has an ideological position that differs moderately from those of respondents while the candidate with the least preferred class profile has an identical position, working-class and middle-class respondents are indifferent between the two candidates. Finally, when the candidate with the most preferred class profile has an ideological position that differs strongly from those of respondents while the candidate with the least preferred class profile has an

---

[2]We again proxy social class by education and household income. Below we replicate the analysis with social class determined by education, household income, and occupation.

[3]In the experiment, the ideological position of candidates could take one of five values: left, center-left, center, center-right, and right. Respondents were asked to indicate their own ideological placement on an 11-point scale ranging from 0 (left) to 10 (right). Collapsing the 11-point scale into five ideological categories (left = $\{0, 1, 2\}$, center-left = $\{3, 4\}$, center = $\{5\}$, center-right = $\{6, 7\}$, and right = $\{8, 9, 10\}$), we define a choice setting as "no polarization" when the respondent and the candidate with the most preferred class profile are in the same ideological category, as "moderate polarization" when they are two categories apart, and as "high polarization" when they are four categories apart. The respondent and the candidate with the least preferred class profile are in the same ideological category in each choice setting. Note that 7.2% of our respondents did not indicate their ideology and we removed them from the analysis.

Figure S29: AMCEs of Candidates' Social Class on Vote Propensity by Respondents' Social Class in a No-, Moderate-, and High-Polarization Context
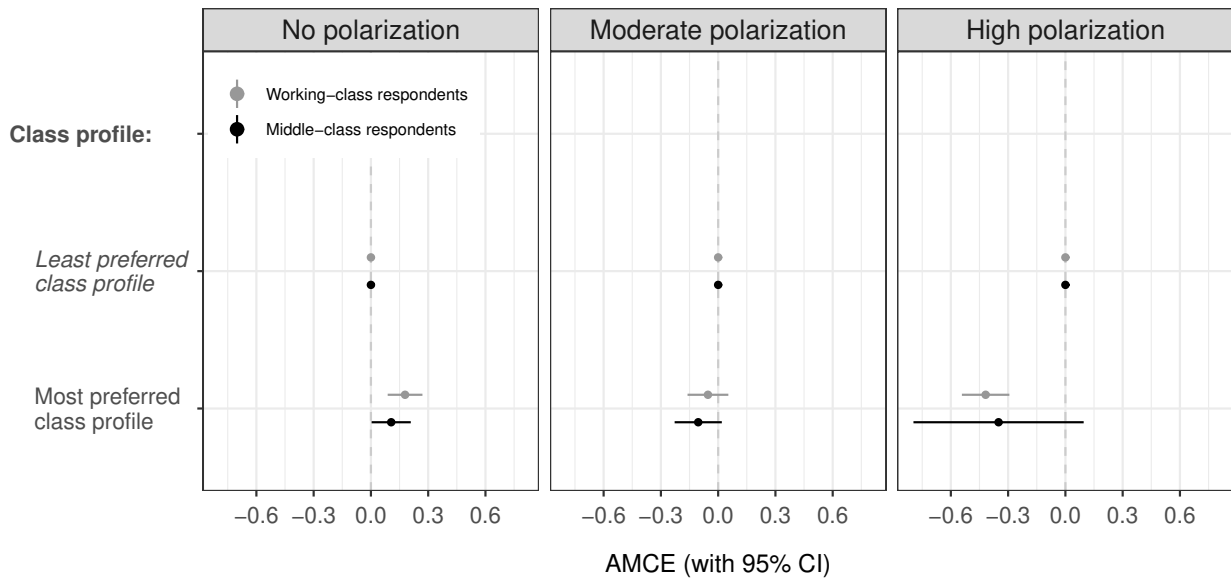
Note: The reference category, shown in italics, are the candidates with the least preferred class profile for the respective group of respondents.

identical position, the effect of ideological proximity dominates the effect of class profile and respondents are substantially more likely to vote for the ideologically identical candidate even though they find that candidate's class profile the least attractive (note, however, that the effect for middle-class respondents falls short of the 95% significance threshold).

We next replicate the analysis with social class determined by education, household income, and occupation. Presented in Figure S30, the results are essentially the same as the ones of the analysis for which social class was proxied by education and household income.

Figure S30: AMCEs of Candidates' Social Class on Vote Propensity by Respondents' Social Class in a No-, Moderate-, and High-Polarization Context
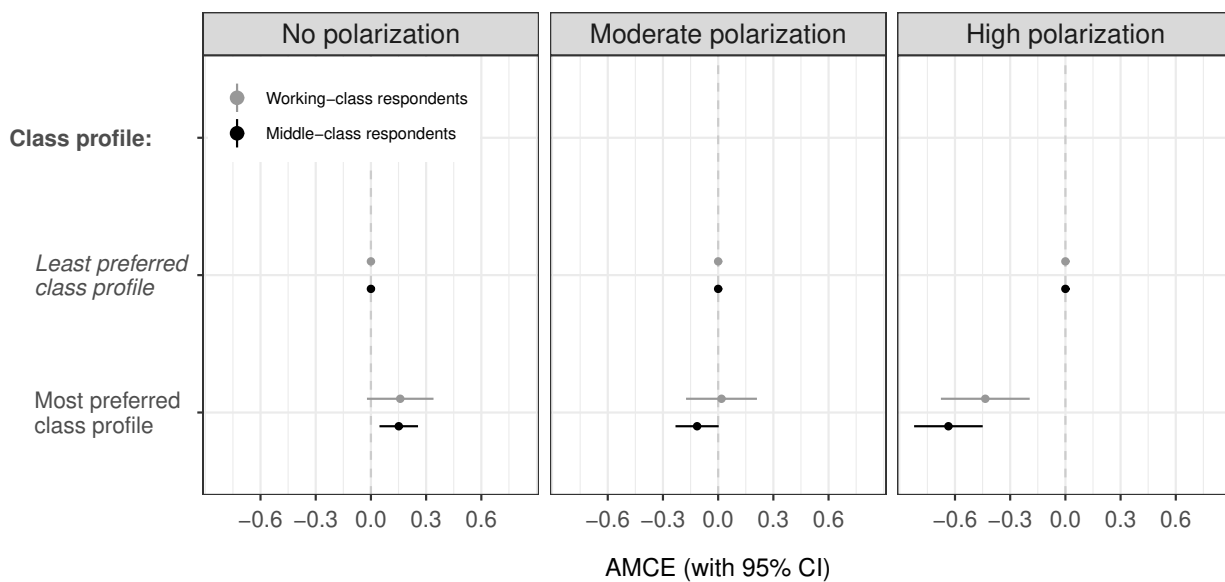

Note: The reference category, shown in italics, are the candidates with the least preferred class profile for the respective group of respondents.

13 Diagnostic Checks

Following Hainmueller, Hopkins and Yamamoto (2014), we perform diagnostic checks to test two assumptions underlying our analysis: the assumption of *stability and no carryover effects* and the assumption of *no profile order effects*. First, the assumption of stability and no carryover effects requires that respondents' candidate preferences remain constant so long as the two candidates in the same choice task have identical attributes, regardless of the candidate profiles that respondents saw earlier or will see later in the experiment. To test the assumption that the AMCEs of candidate income and candidate occupation/education on respondents' vote propensity are identical across choice tasks, we regressed vote propensity on indicators for candidate income and candidate occupation/education, an indicator for the choice task, and the interactions between the two, and conducted an F-test to test the null hypothesis that all interaction coefficients are equal to zero (Hainmueller, Hopkins and Yamamoto 2014, 22). The F-test showed that we cannot reject the null hypothesis that income and occupation/education effects are identical across choice tasks (p-value $= 0.445$). To test the assumption that the AMCEs of candidate social class on respondents' vote propensity are identical across choice tasks, we repeated the above procedure using indicators for candidate social class instead of candidate income and candidate occupation/education. Again, the F-test showed that we cannot reject the null hypothesis that social class effects are identical across choice tasks (p-value $= 0.980$).[4]

Second, the assumption of no profile order effects requires that the ordering of candidate profiles within a choice task does not affect respondents' candidate preferences. To test the assumption that the AMCEs of candidate income and candidate occupation/education on respondents' vote propensity do not depend on the ordering of profiles, we regressed vote propensity on indicators for candidate income and candidate occupation/education, an indicator for the profile number, and the interactions between the two. We then again conducted an F-test to test the null hypothesis that all interaction coefficients are equal to zero (Hainmueller, Hopkins and Yamamoto 2014, 25). The F-test showed that we cannot reject the null hypothesis that income and occupation/education effects are the same regardless of whether the attributes occur in the first or the second profile in a given task (p-value $= 0.124$). To test the assumption that the AMCEs of candidate social class on respondents' vote propensity do not depend on the ordering of profiles, we repeated the procedure using indicators for candidate social class instead of candidate income and candidate occupation/eduction.

---

[4]We also tested the assumption of stability and no carryover effects using forced vote choice instead of vote propensity as dependent variable. We again could not reject the null hypothesis that income and occupation/education effects and social class effects, respectively, are identical across choice tasks (with p-value $= 0.524$ and p-value $= 0.106$, respectively).

Again, the F-test showed that we cannot reject the null hypothesis that social class effects are the same regardless of whether the attributes occur in the first or the second profile in a given task (p-value $= 0.256$).[5]

---

[5]As for the assumption of stability and no carryover effects, we also tested the assumption of no profile effects using forced vote choice instead of vote propensity as dependent variable. We again could not reject the null hypothesis that income and occupation/education effects and social class effects, respectively, are the same regardless of whether the attributes occur in the first or the second profile (with p-value $= 0.068$ and p-value $= 0.064$, respectively).

14 Evidence from Experiments in Great Britain and the US

In this section, we briefly describe the design and the main results of the online conjoint survey experiments that we conducted in Great Britain and the US. Our experiments presented respondents with pairs of hypothetical candidates running for the UK House of Commons or the US House of Representatives for the first time.[6] The candidate profiles were composed of six attributes: gender, political party, current occupation, and candidates' answers to three questions about the main objective of economic policy, immigrants' access to social benefits, and the "main problem with politics."[7] For each attribute, a value was randomly drawn from a set of possible values. Table S5 provides an overview of all candidate attributes and the corresponding sets of possible values.

Table S5: Attributes and Possible Values in the Candidate Choice Experiments in GB and the US

Attribute	Possible values (GB / US)
Gender	• Male • Female
Political party	• Labour / Democrat • Conservative / Republican
Current occupation	Either: • Shop assistant • Clerk at a law firm • Solicitor / Lawyer with own practice • Managing partner of a large / corporate law firm Or: • Cleaner in a hospital • Paramedic • General practitioner / Primary care physician • Cardiologist in a prestigious hospital
What should be the	• Reduce income differences between rich and

Continued on next page

---

[6]The profiles of each pair of candidates were presented side-by-side and each pair was presented on a separate screen.

[7]Specifically, the questions asked: (i) What should be the main objective of economic policy? (ii) When should immigrants have full access to social benefits? (iii) What is the main problem with politics? The attributes were presented in a randomized order for each respondent, but following Hainmueller, Hopkins and Yamamoto (2014, 4) and as in our Swiss experiment, we held the order of attributes constant for all profiles a respondent was exposed to in order to reduce cognitive burden.

Attribute	Possible values (GB / US)
main objective of economic policy?	poor households • Increase public investment in education and infrastructure • Reduce the size of government
When should immigrants have full access to social benefits?	• Immediately • After paying income taxes for at least three years • After they have become citizens
What is the main problem with politics?	• Big business has too much power • The political establishment does not represent the will of the British / American people • There is too much partisan polarization

Note: The table shows the attributes and attribute levels we used to randomly generate the candidate profiles in our conjoint experiments in Great Britain and the US.

The values for candidates' current occupation were drawn from either of two sets: {shop assistant, clerk at a law firm, solicitor (GB) / lawyer (US) with own practice, managing partner of a large (GB) / corporate (US) law firm} or {cleaner in a hospital, paramedic, general practitioner (GB) / primary care physician (US), cardiologist in a prestigious hospital}. Shop assistant and hospital cleaner are routine working-class (RWC) occupations, law firm clerk and paramedic are skilled working-class (SWC) occupations, self-employed solicitor/lawyer and general practitioner/primary care physician are lower middle-class (LMC) occupations, and managing partner and cardiologist are upper middle-class (UMC) occupations. In contrast to our Swiss survey experiment, the GB and US experiments did not provide information about candidates' income, relying instead on occupational descriptors to convey the distinctions between RWC and SWC and between LMC and UMC.

The surveys were in the field in May and June 2019. For each country, the sample consisted of somewhat more than 4,200 respondents between 18 and 69 years of age.[8] We presented each respondent with three pairs of hypothetical candidates running for parliament. Following the presentation of a candidate pair, we asked the respondent a number of questions

---

[8]There were 4,241 respondents in the GB experiment and 4,211 respondents in the US experiment. Respondents were randomly recruited by a subcontractor from existing online panels. Based on census data from England/Wales, Scotland, and the US we defined interlocking quotas for sex and age group (18-24, 25-29, 30-39, 40-49, 50-59, and 60-69) and non-interlocking quotas for region (GB: East, East Midlands, London, North East, North West, South East, South West, Wales, West Midlands, Yorkshire and The Humber, and Scotland; US: Northeast, Midwest, South, and West).

about his or her voting intentions. First, we asked which candidate the respondent would be more likely to vote for if he or she had to vote for one of the two candidates ("forced choice"). Second, we asked how likely the respondent would be to vote for each candidate in an election to parliament ("vote propensity"). Third, we also asked respondents to rate candidates on how qualified they are to serve as representatives and their ability to understand the problems facing "people like me."[9]

Figure S31 presents the MMs of candidates' social class on vote propensity for all respondents taken together (left panels) and by respondents' social class (right panels) for Great Britain (top panels) and the US (bottom panels). The results show that, irrespective of their class, British as well as American respondents consistently prefer SWC, LMC, and UMC candidates over RWC candidates. At the same time, these results would seem to suggest that Brits and Americans do not share the Swiss bias against UMC candidates. Regarding the latter point, it deserves to be noted that our Swiss respondents were only biased against lawyers, engineers, and executives with very high incomes and that other experimental studies (Campbell and Cowley 2014; Sadin 2016) show that Brits and Americans are also biased against candidates with very high incomes. A plausible explanation for the discrepancy between our GB/US results and our Swiss results is that many people underestimate the earnings differentials between a solo lawyer and the managing partner of a corporate law firm or between a general practitioner and a cardiologist.

---

[9]In addition to "don't know," the vote-propensity, understanding, and qualification questions had five response categories, ranging from "very likely" to "very unlikely" for the former two questions and from "very qualified" to "very unqualified" for the latter question.

Figure S31: MMs of Candidates' Social Class on Vote Propensity for All Respondents and by Respondents' Social Class
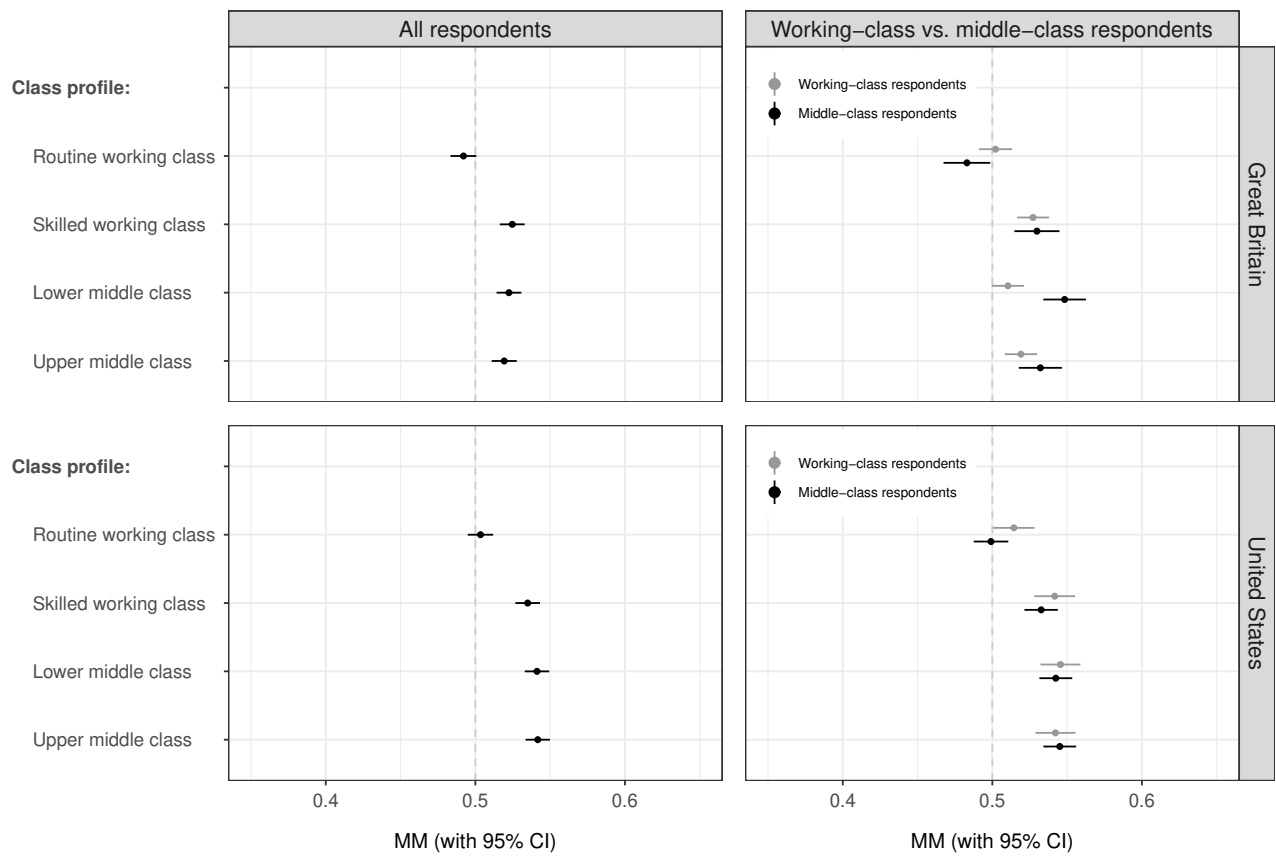
References

Campbell, Rosie and Philip Cowley. 2014. "Rich Man, Poor Man, Politician Man: Wealth Effects in a Candidate Biography Survey Experiment." *British Journal of Politics and International Relations* 16(1):56–74.

CCS. 2016. "Comparative Candidates Survey Module I - 2005-2013 [Dataset - cumulative file]." Distributed by FORS, Lausanne.

Fiske, Susan T., Amy J. C. Cuddy and Peter Glick. 2007. "Universal Dimensions of Social Cognition: Warmth and Competence." *Trends in Cognitive Sciences* 11(2):77–83.

Fiske, Susan T., Amy J. C. Cuddy, Peter Glick and Jun Xu. 2002. "A Model of (Often Mixed) Stereotype Content: Competence and Warmth Respectively Follow From Perceived Status and Competition." *Journal of Personality and Social Psychology* 82(6):878–902.

FORS. 2009. "Selects: Candidate Survey – 2007 [Dataset]." FORS, Lausanne.

Funk, Carolyn L. 1996. "The Impact of Scandal on Candidate Evaluations: An Experimental Test of the Role of Candidate Traits." *Political Behavior* 18(1):1–24.

Funk, Carolyn L. 1999. "Bringing the Candidate into Models of Candidate Evaluation." *Journal of Politics* 61(3):700–720.

Goodrich, Ben, Jonah Gabry, Imad Ali and Sam Brilleman. 2018. "rstanarm: Bayesian applied regression modeling via Stan.". R package version 2.17.4.
URL: *http://mc-stan.org/*

Hainmueller, Jens, Daniel J. Hopkins and Teppei Yamamoto. 2014. "Causal Inference in Conjoint Analysis: Understanding Multidimensional Choices via Stated Preference Experiments." *Political Analysis* 22(1):1–30.

Little, R. J. A. 1993. "Post-Stratification: A Modeler's Perspective." *Journal of the American Statistical Association* 88(423):1001–1012.

McCurley, Carl and Jeffery J. Mondak. 1995. "Inspected by #1184063113: The Influence of Incumbents' Competence and Integrity in U.S. House Elections." *American Journal of Political Science* 39(4):864–885.

Oesch, Daniel. 2006*a*. "Coming to Grips with a Changing Class Structure." *International Sociology* 21(2):263–288.

Oesch, Daniel. 2006*b*. *Redrawing the Class Map: Institutions and Stratification in Britain, Germany, Sweden and Switzerland.* Basingstoke: Palgrave MacMillan.

Russell, Ann Marie T. and Susan T. Fiske. 2008. "It's All Relative: Competition and Status Drive Interpersonal Perception." *European Journal of Social Psychology* 38(7):1193–1201.

Sadin, Meredith L. 2016. "Campaigning with Class: The Effect of Candidate Wealth on Voters' Evaluations." Unpublished paper. URL: `https://www.meredithsadin.com/research`.

Stewart, Marianne C. and Harold D. Clarke. 1992. "The (Un)Importance of Party Leaders: Leader Images and Party Choice in the 1987 British Election." *Journal of Politics* 54(2):447–470.