Attractiveness and preferences for redistribution

Attractiveness and Preferences for Redistribution*

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Abstract

Using unique German survey data, we show that beauty is associated with lower support for redistribution and that attractive individuals are more likely to believe that economic success depends more on individual effort rather than external circumstances. These results are consistent with voting behavior, as we find that beauty correlates with voting for the Free Democratic Party (FDP), which historically advocates a low level of taxation. These associations do not differ by gender and remain also if household income and employment status are controlled for, suggesting that the relationship between attractiveness and political preferences is not fully explained by the beauty premium in the labor market. We test alternative channels that might drive our results, but the correlation between attractiveness and preferences for redistribution always persists. We suggest that our results might be explained by the way in which attractive individuals rationalize the advantages they get thanks to their beauty.

Keywords: Beauty, Political Preferences, Preferences for Redistribution

JEL Codes: D63, D69, D72, Z1

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1 Introduction

Physical attractiveness improves many outcomes. Good-looking individuals tend to be happier (Hamermesh and Abrevaya, 2013), earn higher wages (Bonilla et al., 2019; Hamermesh and Biddle, 1994; Mobius and Rosenblat, 2006), find better jobs (Harper, 2000; Kromann, 2015), carry out better tasks on the workplace (Kapoor and Maegsan, 2019; Stinebrickner et al., 2019), charge higher prices (Jaeger et al., 2019) and achieve higher cognitive outcomes (Hamermesh et al., 2019). They are able to build more convenient social networks (O'Connor and Gladstone, 2018), have higher access to credit (Ravina et al., 2008), are viewed as more trustworthy (Wilson and Eckel, 2006). If running for elections, good-looking individuals have higher chances to be elected (Berggren et al., 2010; Hamermesh, 2006; Rosar et al., 2008), and if economists, they, get more citations, and are more likely to be placed in higher-ranking academic institutions (Hale et al., 2021). On the other hand, negative effects of beauty on labor-market outcomes are rare (Ruffle and Shtudiner, 2015).

Given the numerous societal and labor-market outcomes of beauty, economic studies started to investigate the relationship between physical appearance and political preferences, finding that more attractive people are more willing to support right-wing parties (Arunachalam and Watson, 2018; Peterson and Palmer, 2017). The usual interpretation of this finding is that, by earning more, attractive people become less favorable to redistribution and more supportive of right-wing parties (Berggren et al., 2017). In this paper, we try to shed light on the relationship between beauty and political preferences by explicitly testing how attractiveness relates to individual support for income redistribution.

Using unique German survey data, we show that attractiveness negatively relates to support for redistribution and that attractive people are more likely to believe that economic success depends on individual effort. These associations remain also if household income, employment status, education, and parental background are controlled for, suggesting that the relationship between beauty and preferences for redistribution is not fully explained by the beauty premium in the labor market. Furthermore, we find a significant correlation between attractiveness and voting behavior. Our results suggest that attractiveness negatively relates to voting for the Social Democratic Party (SPD), and it positively relates to voting for the Free Democratic Party (FDP) and the Green Party. However, when controlling for labor market outcomes, only the correlation between beauty and voting for the FDP withstands. As in Giuliano and Spilimbergo (2014), the results on voting behavior appear to mirror those regarding redistributive preferences. In fact, the FDP historically advocates for a low level of taxation and a free-market economy (Franzmann and Kaiser, 2006).

We investigate some potential mechanisms that might drive our results. First, we split our sample by gender. We find that the association between preferences for redistribution and attractiveness holds both among males and females. We then use the body-mass index (BMI) to have an alternative measure of beauty and to understand whether our results are driven by anthropometric characteristics. We find that the

BMI positively relates to support for redistribution. When we include our measure of beauty in the regression, the effect of the BMI on preferences for redistribution decreases significantly, suggesting that our measure of beauty accounts for body and facial attractiveness. We also test for the potentially confounding role of personality traits and self-esteem. However, the (negative) relationship between attractiveness and preferences for redistribution remains statistically significant.

Unfortunately, we are not able to pinpoint the exact mechanism that drives the relationship between beauty and redistributive preferences. We suggest that the relationship between beauty and preferences for redistribution might be explained by how attractive people rationalize the success they get thanks to their beauty. As an example, we discuss the potential role of self-serving bias (Doherty et al., 2006; Powdthavee and Oswald, 2014; Somville et al., 2020). This mechanism clearly emerges in Deffains et al. (2016) who experimentally manipulate participants' success and failure by randomly assigning hard or easy real-effort tasks. They find that people who succeed tend to attribute success to their own merit and therefore are less willing to redistribute income. When failing, instead, people tend to attribute the failure to external factors and demand redistribution. It might be that attractive people underestimate the role that beauty plays in their life. Underestimating the role of attractiveness in life might decrease beautiful people's support for redistributive policies and it might push them to believe more in the role of individual effort in life. However, this is only one of the possible ways in which attractiveness affects political preferences and beliefs.

Our paper contributes to the current debate on individual support for redistribution by bridging two strands of literature. First, we connect to studies on the individual preferences for redistribution. Understanding the drivers of individual support for redistribution is a central topic in economics since redistributive policies rely on it (see e.g. Alesina et al., 2004; Bussolo et al., 2019; Guiso et al., 2006; Sabatini et al., 2020; Scervini, 2012). Fong (2001) shows that beliefs on the role of luck and merit in life are key determinants of preferences for redistribution. Society demands less redistribution if people believe that economic success mainly depends on talent and effort and that everyone should enjoy the fruits of her work (Alesina and Angeletos, 2005; Alesina et al., 2001; Benabou and Tirole, 2006). On the other hand, people demand redistribution if the source of inequalities is due to luck (see e.g. Almås et al., 2020; Cappelen et al., 2007; Gualtieri et al., 2019).

We contribute to this line of research by showing that attractiveness correlates both with beliefs on the role of individual effort in determining economic success and preferences for redistribution. However, contrary to what the literature expects, this correlation is not fully explained by the beauty premium in the labor market.

The second strand of literature assesses the multiple facets of the economic and social outcomes of beauty, such as wage premia (Doorley and Sierminska, 2015), life time earnings (Scholz and Sicinski, 2015), occupational prestige (Sala et al., 2013), risk taking (Dreber et al., 2013), trust (Andreoni and Petrie, 2008; Póvoa et al., 2020) and happiness (Hamermesh and Abrevaya, 2013).

We add to this field of studies by showing that attractiveness also correlates with

political preferences. While this literature has shown the effect of beauty on societal and market outcomes, its effect on political preferences and beliefs has been less explored.

The rest of the paper proceeds as follows: the next section illustrates the data and the empirical strategy. Section three presents our analysis of the relationship between beauty and preferences for redistribution. Section four offers a brief discussion and concludes.

2 Data and empirical strategy

2.1 Data and main variables

To investigate the relationship between beauty and support for redistribution, we use the German General Social Survey (ALLBUS), a biennial survey representative of the German population. Each wave of the ALLBUS survey corresponds to a random sample extracted from the population. Therefore, the cross-sectional nature of the data does not allow us to carry out a panel analysis (Terwey, 2000). From 2008 onward, the ALLBUS survey includes a question regarding the attractiveness of the interviewed individuals. We use parts of the cumulative data from 2008 to 2018 (GESIS Leibniz Institut, 2020). In some waves, the ALLBUS survey contains the International Social Survey Program (ISSP) modules. The ISSP modules are administrated to part of the whole sample soon after the core questions of the ALLBUS survey and are on specific topics, e.g. religious belonging, sports activities, national identity. This is an advantage for us because we have access to the body-mass index in 2008 through answers to the ISSP module.

2.1.1 Preference for redistribution and beliefs about meritocracy

In the ALLBUS survey, individuals are asked to declare how much they agree or disagree about a series of statements. Answers are on a 1-5 or 1-4 scale ranging from "agree completely" to "disagree completely". We focus our analysis on the following four statements:

- "Income and wealth should be redistributed towards ordinary people".
- "Income should not be based solely on individual achievement. Instead, everybody should have what they and their family need for a decent life".
- "The state must ensure that people can live on a decent income, even in illness, hardship, unemployment and old age".
- "What one gets in life depends not so much on one's own efforts, but on the economic situation, the situation on the employment market, wage agreements, and the social benefits provided by the state".

The first statement is on a 1-5 scale and is asked in waves 2008 and 2018. We label the variable built around this statement "Redistribute Income". The other three statements are asked in waves 2010 and 2014, and are on a 1-4 scale. We label the variables built

around these statements "Decent Income", "Secure Income in Hardship", and "Success Depends on Effort". To facilitate the reading of the results along with the labels of our variables, we recoded the variables "Redistribute Income", "Decent Income", and "Secure Income in Hardship" so that higher values correspond to higher support for redistribution, while we did not recode the variable "Success Depends on Effort" so that higher values correspond to the belief that life depends more on one's effort rather than external circumstances.

The variable "Redistribute Income" is very similar to the indicator of preferences for redistribution used by Alesina et al. (2018a). They use data from the European Social Survey where individuals are asked to agree or disagree with the following statement: "The government should take measures to reduce differences in income levels". These kinds of questions are often used to measure redistributive preferences. For example, Alesina and La Ferrara (2005) use data from the General Social Survey where individuals are asked to agree or disagree on whether "the government should reduce income differences between the rich and the poor, perhaps by raising the taxes of wealthy families or by giving income assistance to the poor". Similar questions have been used in other studies on preferences for redistribution, such as Gualtieri et al. (2019), Roth and Wohlfart (2018) and Guiso et al. (2006).

The measures labeled as "Decent Income" and "Secure Income in Hardship" are useful to understand the individual support for the provision of a basic income for all rather than relying on individual effort and support for the state intervention in the economy. Questions of this kind are widely used in the literature. For example, Alesina and Fuchs-Schündeln (2007) use questions on the role of the state in providing social services to assess differences in redistributive preferences between individuals from East and West Germany.

Differently from the other measures, the variable "Success Depends on Effort" is built around a positive statement, and gives us the possibility to understand the relationship between attractiveness and beliefs in the role of individual effort in determining economic success. As mentioned in the introduction, the literature shows a well-established nexus between beliefs on the determinants of economic success in life and preferences for redistribution: the more the people believe in individual effort, the less they support redistribution. Several studies investigating redistributive preferences also look at beliefs in the role of individual effort. For instance, Giuliano and Spilimbergo (2014), Corneo and Grüner (2002) and Alesina et al. (2018b) use answers to a question asking whether the economic success depends on luck or on individual effort.

We report in table A1 the cross-correlation table of our outcomes variables[1]. The correlation among the variables is highly significant and has the expected sign. Since our variables are meant to measure preferences for redistribution, it could be that the magnitude of the correlation among them is so high that building a unique index by combining these measures would be preferable. However, Table A1 shows that the magnitude of the correlation is always lower than 0.30; consequently, we decided to

[1]Unfortunately, we cannot include the variable "Redistribute Income" in the table because it is asked in waves 2008 and 2018, while the other three variables are asked in waves 2010 and 2014

investigate these variables separately.

2.1.2 Attractiveness

The interviews in our sample are all conducted face-to-face. At the beginning of the questionnaire, interviewers must rate respondents' attractiveness without being noticed. As we explain in the next section, the rating at the beginning of the interview is considered quite reliable and since the interviews are conducted face-to-face, our measure should refer both to facial and body attractiveness. The assessment of beauty ranges on a scale from 1 to 11, with 11 meaning the highest level of attractiveness.

In the ALLBUSS survey, the interviewers conduct from a minimum of 2 to a maximum of 134 interviews in one year. Thus, some interviewers might rate more than one person up to a maximum of 134 people. Additional statistics about the interviewers such as age, education, and years within the survey institute can be found in Table 1. However, to get rid of the possible biases arising from the interviewers' characteristics we control for the interviewer fixed effect in all our regressions.

2.1.3 Other Variables and Descriptive Statistics

In our regressions, we add some standard controls, such as age, gender, marital status, and year and region fixed effects. To control for monetary measures we also include variables measuring education, household income, and employment. A complete list of the variables used in our analysis can be found in Table 1. Since one of our dependent variables is available in waves 2008 and 2018, while the other three are available in waves 2010 and 2014 of the ALLBUS, we show in Table 1 the descriptive statistics referring to both samples. In both samples, the average level of attractiveness is around 7.5. On average, the interviewed individuals are around 50 years old and the share of male respondents is around 50 % of the sample.

We also include in Table 1 the variables referring to voting behavior and the variables concerning the body-mass index and personality traits. For each of these measures, we indicate the corresponding waves.

Table 1: Summary statistics

Variable	Mean	Std. Dev.	Min.	Max.	N
2008,2018 Sample					
Income Redistribution	3.786	1.179	1	5	4896
Attractiveness	7.682	1.878	1	11	4896
Body-Mass Index (2008)	25.787	4.386	14.69	50.78	1120
Male	0.498	0.500	0	1	4896
Age	51.557	17.231	18	97	4896
Employed	0.545	0.498	0	1	4896
Degree	0.176	0.381	0	1	4896
Household Income (log)	7.760	0.653	0	10.645	4896
Father with Tertiary Education	0.180	0.384	0	1	4896
Mother with Tertiary Education	0.124	0.330	0	1	4896
Married	0.595	0.491	0	1	4896
Number of Interviews	33.235	19.608	2	134	4896
Age of Interviewer	61.138	9.925	27	84	4896
Interviewer Male	0.619	0.486	0	1	4896
Interviewer with Tertiary Education	0.317	0.465	0	1	4896
2010,2014 Sample					
Success Depends on Effort	2.405	0.804	1	4	4469
Decent Income	2.582	0.918	1	4	4469
Secure Income in Hardship	3.306	0.743	1	4	4469
Attractiveness	7.581	1.827	1	11	4469
Body-Mass Index (2014)	26.122	4.637	14.84	54.08	2518
Personal Ambitions in life Fulfilled (2010)	0.485	0.5	0	1	1982
Male	0.510	0.500	0	1	4469
Age	49.743	17.150	18	94	4469
Employed	0.566	0.496	0	1	4469
Degree	0.164	0.370	0	1	4469
Household Income (log)	7.721	0.639	4.382	11.295	4469
Father with Tertiary Education	0.180	0.384	0	1	4469
Mother with Tertiary Education	0.118	0.323	0	1	4469
Married	0.570	0.495	0	1	4469
Number of Interviews	25.648	15.299	2	91	4469
Age of Interviewer	60.060	9.730	23	80	4469
Interviewer Male	0.558	0.497	0	1	4469
Interviewer with Tertiary Education	0.296	0.457	0	1	4469
Personality Traits (2008 Sample)					
Extraversion	6.602	1.828	2	10	3073
Neuroticism	6.963	1.756	2	10	3073
Conscientiousness	8.260	1.423	3	10	3073
Openness	6.935	1.775	2	10	3073
Agreeableness	6.472	1.547	2	10	3073
Voting Behavior (2008, 2012-2018 Sample)					
CDU-CSU	0.359	0.480	0	1	9291
SPD	0.274	0.446	0	1	9291
FDP	0.079	0.269	0	1	9291
The Greens	0.132	0.339	0	1	9291

2.2 Empirical strategy

To assess the relationship between preferences for redistribution and attractiveness, we estimate the following linear model:[2]

$$Y_i = \alpha_1 + \alpha_2 Attractiveness_i + \alpha_4 C_i + \alpha_5 D_i + \gamma_i \quad (1)$$

Where Y_i is the outcome variable (either redistributive preferences, voting intentions or beliefs), $Attractiveness_i$ is the variable measuring beauty, C_i is the set of variables controlling for individual characteristics, and D_i captures the regional, year, and interviewer fixed effects.

A clear challenge of our study is to employ a consistent measure of beauty. Our measure of beauty builds on the individual taste of a rater evaluating several individuals. Such a measure could be biased in many aspects. The interviewers may differ substantially on what they consider attractive, or the assessment could differ depending on some particular matches between the interviewer and the interviewee, e.g. if both the interviewer and the interviewee have the same gender or age. Furthermore, since we rely on a face-to-face assessment, our measure does not focus on facial attractiveness alone, and in addition to anthropometric characteristics, also clothes might influence the rater's judgment[3]. We try to take into account these possible biases in our analysis, so to guarantee that, even if far from perfect, our measure of beauty can be reliable.

Hamermesh and Abrevaya (2013) provide a careful examination of the usual measurement errors that researchers encounter when estimating beauty, and synthesize three main types of measurement errors:

1) The beauty rating is affected by the low number of raters. This is considered as a classical measurement error in the beauty rating and estimates including this error correspond to the classical case of the errors-in-variables. Hence, this type of measurement error provides a lower-bound estimation. 2) The beauty measure and the outcome measure are observed at different times. This type of measurement error is considered as an attenuation of the accuracy of the beauty rating. Since the canons of beauty change over time, the higher the time distance between the assessment of beauty and the outcome of interest, the higher the measurement error. In this case, the resulting parameter estimation would be too low. 3) The beauty rating is affected by the prior

[2]We use a linear model even if our dependent variables are categorical (except for voting intentions) both to facilitate the interpretation of the results and because we include several fixed effects that might bias the estimates in nonlinear models (Greene, 2002). However, we show in table A4 the results of a linear probability model where we dichotomize the outcome variables. Moreover, we show in Appendix C the main equations when using an ordered probit estimation. Results do not change significantly in any case.

[3]As Hamermesh and Biddle (1994) suggest, clothes might influence the rating of full-body attractiveness as well as make-up or earrings might influence the rating of facial attractiveness. Unfortunately, there are no perfect strategies to deal with this bias. However, to the extent that clothing and makeup are correlated with income, education, and parental background we should somewhat control for this possible bias.

interaction between the rater and the subject. This type of measurement error is considered a bias in the beauty rating and it arises when the judgment's rating might be influenced by self-confidence or other characteristics of the rated individual through the interaction preceding the assessment. This kind of bias might produce either higher or lower estimates depending on the ratio between the classical measurement error and the bias in the beauty rating.

We want to remark that, although beauty is said to be in the eye of the beholder, the canons of beauty are shared within a certain culture. The pioneering study by Hamermesh and Biddle (1994) states: "The evidence seems quite clear on this issue: within a culture at a point in time there is tremendous agreement on standards of beauty, and these standards change quite slowly." Hamermesh (2011) summarizes in the second chapter the literature suggesting that, within a culture, people usually agree on standards of beauty. This common agreement enables us to have a measure of beauty because the rates of attractiveness are sufficiently consistent among raters. In fact, the use of raters' judgment to measure beauty is a common approach in the literature (Doorley and Sierminska, 2015; Mavisakalyan, 2018; Oreffice and Quintana-Domeque, 2016).

Hamermesh and Abrevaya (2013) argue that the measure of beauty in the ALLBUS survey suffers only from the first measurement error. Since the number of raters is very low, the idiosyncratic standards of beauty of the raters might be randomly correlated with individuals' preferences for redistribution, so biasing the estimate towards zero. As in previous studies (see e.g. Hamermesh and Abrevaya, 2013; Hamermesh and Biddle, 1994; Mocan and Tekin, 2010), we can get rid of this bias through the inclusion of the interviewer fixed effect. In other words, the inclusion of the interviewer fixed effect allows us to control for all the idiosyncratic characteristics of the rater, standards of beauty included. Accounting for the interviewer fixed effect is essential for our analysis because raters' idiosyncratic standards of beauty might also relate to political preferences. For example, some raters might prefer looks that could correlate with right-wing or left-wing leaning.

To further test the robustness of our results, we use the body-mass index (BMI) as an alternative measure of beauty. The BMI is free from the aforementioned measurement errors, and although it does not capture facial attractiveness, it can be used to proxy physical attractiveness (Hamermesh and Abrevaya, 2013).

To control for the possibility that the attractiveness rating is influenced by particular matches, e.g. both the interviewer and the interviewee have the same age or level of education, we run a robustness check in the spirit of Oreffice and Quintana-Domeque (2016). We include in the regression the interactions between the observable characteristics (age, gender, and education) of the interviewer and the interviewee in addition to controlling for the interviewer fixed effect. Moreover, we run an additional robustness check of our main findings clustering the standard errors at the interviewer level[4].

Last, given the nature of our data, we cannot fully neglect the third measurement error. In the ALLBUS survey, the interviewers have to rate participants at the beginning

[4]The results of these robustness checks are displayed in Tables A2 and A3.

of the interview and without being noticed. Nevertheless, we cannot exclude that the interaction needed to set the interviews influences the beauty rate. Since the interviews are conducted face-to-face, the interviewers and the interviewees need to interact in person to set the interviews, and a polite or an outgoing interviewee might get a higher rate with respect to a shy one. In Section 3.3.4 we discuss this potential bias and we try to control for it by running a robustness check including the Big Five personality traits among the controls.

3 Results

In this section, we illustrate the relationship between beauty and preferences for redistribution or beliefs in the role of individual effort in life. We also show the relationship between beauty and voting behavior. Last, we try to test some possible mechanisms that might explain our results.

3.1 Beauty, Preferences for Redistribution and Meritocratic Beliefs

The results in Tables 2, 3, 4, and 5 show our main results on the set of our 4 dependent variables. Each table shows in the first column a baseline model where we include a set of basic controls, as such age, age squared, marital status and gender[5], but we exclude the interviewer fixed effect. The second column of the tables shows the baseline model with the inclusion of the interviewer fixed effect. As hypothesized in Section 2.2, our measure of attractiveness suffers from measurement errors. Indeed, we find that the exclusion of the interviewer fixed effect leads to a significant downward bias of the results -the omission of the interviewer fixed effect almost halved the size of the coefficient.

Starting from column three, we include some monetary and non-monetary measures that might explain the association between attractiveness and preferences for redistribution. Specifically, we include employment status, education, household income, and parents' education. We include these measures because attractiveness increases employment possibilities, personal earnings, and educational attainments (Hamermesh et al., 2019; Harper, 2000; Sala et al., 2013), hence we test whether our measure of beauty is capturing a spurious correlation between, for example, earnings and preferences for redistribution. Furthermore, following Scholz and Sicinski (2015) we also include parental background in our regressions. We are aware that we are including in our regression some endogenous or "bad" controls (Angrist and Pischke, 2008), but the purpose of our analysis at this stage is to understand if the relationship between attractiveness and political preferences is explained by labor-market outcomes or not.

Table 2 shows that an increase in the attractiveness rating negatively relates to support for redistribution. A one-unit increase in attractiveness is associated with a

[5]Subjective health status is available for the sample referring to 2008 and 2018, and only in part of the sample in waves 2010 and 2014. Health is an important control since it could drive a spurious relation between attractiveness and redistributive preferences. Fort this reason, we show in Table A5 a robustness check of our baseline model where we also control for health status.

decrease in support for redistribution by 0.077 units, which is around 2 % of the sample mean. The magnitude decreases to 1.3 % of the mean when we include all the monetary and non-monetary measures that could explain the correlation between beauty and attractiveness. The inclusion of education, employment status, household income, and parents' education decreases the magnitude of the coefficient by approximately 35 %, while it does not affect the significance of the correlation between attractiveness and redistributive preferences that always remains at 1 % level. To gauge the magnitude of the correlation between redistributive preferences and attractiveness we can compare the standardized coefficients: a one standard deviation increase in attractiveness is associated with a 0.8 decrease in preferences for redistribution, while a one standard deviation increase in household income is associated with a 0.15 decrease in preferences for redistribution. In other words, the magnitude of the association between beauty and support for redistribution is half the association between household income and support for redistribution.

The results in Tables 3, 4, and 5 are all similar to those of Table 1. We always find a negative relationship between attractiveness and support for state intervention in the economy. All the main effects are quite similar in terms of statistical significance and coefficient magnitudes; the effects are at most (least) 3.8 % (1.5 %) of the sample mean in the baseline model and at most (least) 3 % (1 %) of the sample mean in the model with all the controls.

These results do suggest that attractiveness relates to redistributive preferences. The relationship has the expected sign: more attractive individuals are less supportive of redistribution, are less inclined to favor the state intervention in the economy, and are more likely to believe that economic success depends on one's effort. Most importantly, these results suggest that the correlation between preferences for redistribution and attractiveness is not fully explained by the beauty premium in the labor market[6]. Hence, there should be other factors behind the association between beauty and support for redistribution. In the next subsections, we investigate whether the relationship between attractiveness and redistributive preferences is reflected by voting behavior. We then try to pinpoint possible mechanisms that might explain this correlation.

[6]Since the literature shows that higher levels of beauty cause higher earnings possibilities, we further exploit household income as a possible mediator of the relationship between attractiveness and preferences for redistribution. In Table A9, we interact attractiveness with a dummy variable taking a value equal to one for those above the fifth income decile and zero otherwise. This is to understand if the relationship between good-look and redistributive preferences is valid only for high-income people. The results show that this does not seem the case, as the variable "attractiveness" remains significant in all regression, while the interaction term is seldomly significant. Furthermore, we plot the effect of attractiveness for each income decile in Figure A1. The results show no significant differences between the coefficients of attractiveness at different levels of the income ladder.

Table 2: Main Results (1)

	(1) Redistribute Income	(2) Redistribute Income	(3) Redistribute Income	(4) Redistribute Income	(5) Redistribute Income
Attractiveness	-0.056***	-0.091***	-0.074***	-0.054***	-0.052***
	(0.009)	(0.011)	(0.011)	(0.011)	(0.011)
Employed			-0.185***	-0.073*	-0.086**
			(0.041)	(0.043)	(0.043)
Degree			-0.341***	-0.262***	-0.192***
			(0.047)	(0.048)	(0.049)
Household Income				-0.283***	-0.276***
				(0.035)	(0.034)
Father Tertiary Education					-0.196***
					(0.052)
Mother Tertiary Education					-0.152**
					(0.059)
Constant	4.172***	4.333***	4.165***	6.164***	6.232***
	(0.217)	(0.519)	(0.521)	(0.567)	(0.576)
Observations	4,896	4,896	4,896	4,896	4,896
R-squared	0.060	0.156	0.171	0.184	0.191
Basic Controls	Yes	Yes	Yes	Yes	Yes
Interviewer FE	No	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes
Region FE	Yes	Yes	Yes	Yes	Yes

Notes: The table reports the coefficients of a linear regression. The dependent variable is on a 1-5 scale and measures agreement on income redistribution. Basic controls are age, age squared, gender, and marital status. Standard errors are corrected for heteroskedasticity.
Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

Table 3: Main Results (2)

	(1) Decent Income	(2) Decent Income	(3) Decent Income	(4) Decent Income	(5) Decent Income
Attractiveness	-0.063***	-0.100***	-0.089***	-0.077***	-0.075***
	(0.008)	(0.010)	(0.010)	(0.010)	(0.010)
Employed			-0.149***	-0.089**	-0.092**
			(0.035)	(0.036)	(0.036)
Degree			-0.171***	-0.125***	-0.103***
			(0.036)	(0.037)	(0.038)
Household Income				-0.170***	-0.167***
				(0.028)	(0.028)
Father Tertiary Education					-0.068
					(0.042)
Mother Tertiary Education					-0.022
					(0.050)
Constant	3.450***	3.721***	3.645***	4.870***	4.859***
	(0.174)	(0.428)	(0.437)	(0.493)	(0.498)
Observations	4,469	4,469	4,469	4,469	4,469
R-squared	0.040	0.161	0.169	0.177	0.178
Basic Controls	Yes	Yes	Yes	Yes	Yes
Interviewer FE	No	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes
Region FE	Yes	Yes	Yes	Yes	Yes

Notes: The table reports the coefficients of a linear regression. The dependent variable is on a 1-4 scale and measures agreement on the provision of a basic income for all. Basic controls are age, age squared, gender, and marital status. Standard errors are corrected for heteroskedasticity.
Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

Table 4: Main Results (3)

	(1) Secure Income in Hardship	(2) Secure Income in Hardship	(3) Secure Income in Hardship	(4) Secure Income in Hardship	(5) Secure Income in Hardship
Attractiveness	-0.030***	-0.051***	-0.045***	-0.037***	-0.036***
	(0.006)	(0.008)	(0.008)	(0.008)	(0.008)
Employed			-0.074***	-0.036	-0.038
			(0.028)	(0.029)	(0.029)
Degree			-0.111***	-0.082***	-0.067**
			(0.031)	(0.032)	(0.033)
Household Income				-0.108***	-0.106***
				(0.023)	(0.023)
Father Tertiary Education					-0.045
					(0.034)
Mother Tertiary Education					-0.021
					(0.042)
Constant	3.940***	5.394***	5.345***	6.126***	6.123***
	(0.137)	(0.516)	(0.524)	(0.559)	(0.561)
Observations	4,469	4,469	4,469	4,469	4,469
R-squared	0.043	0.154	0.158	0.163	0.163
Basic Controls	Yes	Yes	Yes	Yes	Yes
Interviewer FE	No	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes
Region FE	Yes	Yes	Yes	Yes	Yes

Notes: The table reports the coefficients of a linear regression. The dependent variable is on a 1-4 scale and measures agreement on providing a basic income in times of hardship. Basic controls are age, age squared, gender, and marital status. Standard errors are corrected for heteroskedasticity.
Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

Table 5: Main Results (4)

	(1) Success Depends on Effort	(2) Success Depends on Effort	(3) Success Depends on Effort	(4) Success Depends on Effort	(5) Success Depends on Effort
Attractiveness	0.030***	0.051***	0.042***	0.035***	0.033***
	(0.007)	(0.008)	(0.009)	(0.009)	(0.009)
Employed			0.091***	0.058*	0.063**
			(0.031)	(0.031)	(0.031)
Degree			0.187***	0.162***	0.137***
			(0.032)	(0.033)	(0.034)
Household Income				0.092***	0.090***
				(0.023)	(0.023)
Father Tertiary Education					0.038
					(0.035)
Mother Tertiary Education					0.086**
					(0.041)
Constant	2.412***	1.323***	1.403***	0.736	0.700
	(0.153)	(0.435)	(0.438)	(0.475)	(0.472)
Observations	4,469	4,469	4,469	4,469	4,469
R-squared	0.070	0.170	0.178	0.181	0.183
Basic Controls	Yes	Yes	Yes	Yes	Yes
Interviewer FE	No	Yes		Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes
Region FE	Yes	Yes	Yes	Yes	Yes

Notes: The table reports the coefficients of a linear regression. The dependent variable is on a 1-4 scale and measures agreement on the role of individual effort in determining economic success rather than external circumstances. Basic controls are age, age squared, gender, and marital status. Standard errors are corrected for heteroskedasticity.
Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

3.2 Beauty and Voting Behavior

The ALLBUS survey asks individuals which party they voted for in the last German Federal Elections. The information on voting behavior is present in all the ALLBUS waves except for 2010. We focus our attention on the four major parties during the period that we can investigate (2008-2018), i.e. the Christian Democratic Union of Germany and the Christian Social Union in Bavaria (CDU-CSU), the Social Democratic Party (SPD), the Free Democratic Party (FDP) and The Greens. The variable measuring voting behavior is a dummy variable that equals one if the respondent has selected one of these parties and zero otherwise. As for our main results, we run a baseline model and a model including the monetary and non-monetary measures that might explain the correlation between attractiveness and voting behavior.

The results are displayed in Table 6. In the baseline model, we find that attractiveness negatively relates to voting for the SPD ($p<0.10$) and it positively relates to voting for the FDP and The Greens ($p<0.01$). However, when we control for employment status, education, household income, and parents' education, only the relationship between attractiveness and voting for the FDP holds ($p<0.01$). In terms of magnitude, in the full (baseline) model, a unit increase in the attractiveness rating is associated with an increase of 0.5 (0.7) percentage points in the probability of voting for the FDP, corresponding to the 6.3 % (8.8 %) of the sample mean.

These results seem to suggest that the correlation between beauty and voting for the SPD or The Greens is significant as long as we do not control for other observable characteristics related to beauty such as education, household income, or employment status. Therefore, our measure of beauty was probably capturing some spurious correlations. On the other hand, the correlation between attractiveness and voting for FDP is more similar to the one concerning our main results: the beauty premium in the labor market does not fully explain the relationship between attractiveness and voting for the FDP.

Furthermore, as in Giuliano and Spilimbergo (2014), it appears that our measures of redistributive preferences match the underlying voting preferences. In fact, albeit being a minor party, the FDP is a liberal center-right party proposing a market-oriented economy. It opposes the state intervention in the economy and advocates for a radical tax reduction (Franzmann and Kaiser, 2006).

Table 6: Voting Behavior

	Baseline Model				**Full Model**			
	(1) CDU-CSU	(2) SPD	(3) FDP	(4) The Greens	(5) CDU-CSU	(6) SPD	(7) FDP	(8) The Greens
Attractiveness	-0.001	-0.006*	0.007***	0.007***	-0.003	-0.002	0.005***	0.003
	(0.003)	(0.003)	(0.002)	(0.002)	(0.003)	(0.003)	(0.002)	(0.002)
Employed					0.016	-0.027**	0.001	0.029***
					(0.014)	(0.013)	(0.008)	(0.010)
Degree					-0.056***	-0.025*	0.006	0.094***
					(0.014)	(0.013)	(0.008)	(0.011)
Household Income					0.049***	-0.027***	0.018***	-0.001
					(0.011)	(0.009)	(0.006)	(0.008)
Father Tertiary Education					-0.013	-0.036***	0.013	0.028**
					(0.015)	(0.014)	(0.009)	(0.012)
Mother Tertiary Education					-0.006	-0.028*	0.033***	0.004
					(0.018)	(0.016)	(0.012)	(0.015)
Constant	0.935***	0.171**	-0.015	-0.212***	0.607***	0.347***	-0.152**	-0.159*
	(0.087)	(0.084)	(0.056)	(0.065)	(0.115)	(0.108)	(0.069)	(0.085)
Observations	9,291	9,291	9,291	9,291	9,291	9,291	9,291	9,291
R-squared	0.101	0.098	0.073	0.106	0.106	0.104	0.077	0.121
Basic Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Interviewer FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Region FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Notes: The table reports the coefficients of a linear probability model. The dependent variable is a dummy taking value equal to one if the individual has voted the selected party in the last national elections and zero otherwise. Basic controls are age, age squared, gender and marital status. Standard errors are corrected for heteroskedasticity.
Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

3.3 Possible Alternative Mechanisms

The results just presented suggest a relationship between attractiveness and political preferences. In particular, we find an association between attractiveness and preferences for redistribution that appears to be reflected in voting behavior. We find that this relationship is not fully explained by the greater economic success of attractive individuals. In the next subsections, we investigate possible mechanisms behind our results. In the main text, we report the results of our baseline model. However, in Appendix B, we replicate all the results by adding all the monetary measures and we show that the results do not change significantly.

3.3.1 Gender Split

We first investigate whether our results differ when splitting our sample by gender. This is standard in the literature studying the effects of beauty (Hamermesh and Abrevaya, 2013; Oreffice and Quintana-Domeque, 2016) and in our case is even more appropriate since males and females differ not only when it comes to the outcomes of beauty, but also when it comes to preferences for redistribution (Alesina and Giuliano, 2011).

The results in table 7 do not show significant differences driven by gender. In all our four measures, we find a negative and significant correlation between attractiveness and preferences for redistribution or state intervention in the economy and a positive and significant correlation between beauty and beliefs in the role of individual effort in life. In one of our measures (columns one and five), the effect seems to be stronger in males than females. Nevertheless, the results in table 7 do not suggest systematic differences driven by gender.

Table 7: Gender Split

	Males				**Females**			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Redistribute Income	Decent Income	Secure Income in Hardship	Success Depends on Effort	Redistribute Income	Decent Income	Secure Income in Hardship	Success Depends on Effort
Attractiveness	-0.098***	-0.094***	-0.059***	0.058***	-0.078***	-0.097***	-0.051***	0.047***
	(0.018)	(0.014)	(0.012)	(0.012)	(0.015)	(0.015)	(0.012)	(0.013)
Constant	5.083***	4.737***	4.473***	1.685***	4.402***	3.288***	4.448***	1.855***
	(0.853)	(0.319)	(0.266)	(0.289)	(0.665)	(0.452)	(0.571)	(0.478)
Observations	2,412	2,248	2,248	2,248	2,446	2,151	2,151	2,151
R-squared	0.193	0.208	0.207	0.234	0.205	0.237	0.219	0.232
Basic Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Interviewer FE	Yes	Yes	Yes	Yes	Yes		Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Region FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Notes: See notes in table 2,3,4 and 5. Standard errors are corrected for heteroskedasticity.
Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

3.3.2 Self-Esteem

The literature shows that attractiveness relates to self-confidence (Mobius and Rosenblat, 2006) with higher confidence leading to lower support for redistribution (Buser et al., 2020). Thus, a possible factor that drives our results is self-confidence. Unfortunately, we do not have a proper measure of self-confidence. Thus, we first follow Scholz and Sicinski (2015) and we use a measure of self-esteem that is available in wave 2010, we then try to build an indicator of self-esteem in Section 3.3.4 by using the Big Five personality

traits. The survey asks individuals the extent to which they consider their ambitions in life fulfilled. We use answers to this question to proxy self-esteem.

The results in Table 8 suggest that self-esteem seems not to drive the correlation between attractiveness and preferences for redistribution. In all our measures we still find a negative association between beauty and redistributive preferences.

Table 8: Self-Esteem

	(1) Decent Income	(2) Secure Income in Hardship	(3) Success Depends on Effort
Attractiveness	-0.093***	-0.035***	0.036***
	(0.015)	(0.013)	(0.014)
Personal Ambitions Fulfilled	0.079	0.038	-0.041
(Benchmark= More than Fulfilled)	(0.078)	(0.067)	(0.073)
Personal Ambitions Not Quite Fulfilled	0.221***	0.157**	-0.119
	(0.080)	(0.068)	(0.074)
Personal Ambitions Not At All Fulfilled	0.356**	0.168	-0.161
	(0.146)	(0.113)	(0.126)
Constant	3.537***	4.287***	2.545***
	(0.326)	(0.241)	(0.265)
Observations	1,982	1,982	1,982
R-squared	0.172	0.171	0.140
Basic Controls	Yes	Yes	Yes
Interviewer FE	Yes	Yes	Yes
Region FE	Yes	Yes	Yes

Notes: See notes in table 2,3,4 and 5. Standard errors are corrected for heteroskedasticity.
Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

3.3.3 Anthropometric measures

As discussed in the empirical section, our measure of attractiveness is subjected to measurement errors, and one might worry whether we are capturing spurious correlations rather than a real relationship between attractiveness and preferences for redistribution. Luckily, for part of our sample, we have access to the body-mass index (BMI)[7]. The BMI is useful to our analysis because it gives access to an alternative measure of beauty. Furthermore, it also helps to understand if our measure of attractiveness heavily depends on anthropometric characteristics.

The results in Table 9 show that when we use the BMI instead of our measure of attractiveness, we find a significant and positive association between BMI and preferences for redistribution. This is in line with the results on attractiveness if individuals with higher weights are considered less beautiful. Moreover, when we include in the regressions both our measure of attractiveness and the BMI, the variable measuring the BMI tends to lose its significance, while we continue to find a negative association between

[7]The BMI is asked to participants to the ISSP module in 2008 and wave 2014.

attractiveness and preferences for redistribution[8]. This result suggests that our measure of attractiveness includes and exceeds body attractiveness, i.e. our measure of beauty is based on both facial and body attractiveness.

Table 9: Body-Mass Index (BMI)

	(1) Redistribute Income	(2) Decent Income	(3) Secure Income in Hardship	(4) Success Depends on Effort	(5) Redistribute Income	(6) Decent Income	(7) Secure Income in Hardship	(8) Success Depends on Effort
Attractiveness					-0.079***	-0.094***	-0.058***	0.054***
					(0.024)	(0.013)	(0.010)	(0.011)
BMI	0.027***	0.008*	0.012***	-0.009***	0.021**	0.002	0.008***	-0.006*
	(0.009)	(0.004)	(0.003)	(0.003)	(0.009)	(0.004)	(0.003)	(0.004)
Constant	2.844***	2.679***	3.683***	2.260***	3.656***	3.646***	4.283***	1.708***
	(0.539)	(0.394)	(0.255)	(0.329)	(0.584)	(0.410)	(0.270)	(0.352)
Observations	1,105	2,518	2,518	2,518	1,105	2,518	2,518	2,518
R-squared	0.232	0.127	0.120	0.142	0.240	0.146	0.132	0.150
Basic Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Interviewer FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Region FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Notes: See notes in table 2,3,4 and 5. Standard errors are corrected for heteroskedasticity.
Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

3.3.4 Big Five personality traits

According to Hamermesh and Abrevaya (2013), the measurement error that affects our score of beauty is due to the low number of raters. So far, we did not consider a possible bias of the beauty rating due to the interaction between raters and rated individuals. However, since the survey is conducted face-to-face, the interviewee and the interviewers have to interact to set the interview (e.g. they introduce each other). An outgoing individual might get a higher ranking with respect to a shy one, irrespective of the physical appearance. It is very difficult to fully control for these short-term factors in our setting. However, we try to test this possibility by including the Big Five personality traits among our controls. To the extent that the way people interact is correlated with the Big Five personality traits, we can somewhat control for this bias.

Furthermore, the literature suggests an association between attractiveness and personality traits (see e.g. Fink et al., 2005) and between personality traits and preferences for redistribution (Duch and Rueda, 2015). Thus, the inclusion of the personality traits also helps us to understand whether our results are driven by a spurious correlation between preferences for redistribution and personality traits.

We have access to the Big Five personality traits, namely extraversion, neuroticism, conscientiousness, openness, and agreeableness, in the ALLBUS 2008. Hence, we can investigate this channel only on one of our four outcome measures. In the survey, people are asked each of the Big Five twice, once in positive terms and once in negative terms (Rammstedt, 2007). For example, to measure openness the survey asks the respondent

[8]In Table A6 we run a robustness check of these results by using a dummy variable to measure the BMI instead of the continuous variable. This is to account for the fact that very thin people are not necessarily considered more beautiful than normal weight individuals. Overall the results are very similar to those in Table 9. However, when using the dummy variable, our results are slightly less significant for the outcome labeled "Decent Income" and less significant for the outcome labeled "Success Depends on Effort". This might be due to the fact that when dichotomizing the variable we lose some information, and also to the fact that very thin people are rare in our sample (the average value of BMI is around 26).

whether he/she has an active imagination and whether he/she has few artistic interests. Respondents answer on a 1-5 scale with 1 corresponding to "applies completely" and 5 "does not apply at all". We re-code the answers in negative terms and sum the scores so that the final variable is measured on a 2-10 scale with higher values corresponding to higher intensity of the personality trait[9].

We first check whether our measure of attractiveness is influenced by the Big Five personality traits. Then, we regress demand for redistribution on the Big Five personality traits to see whether personality traits correlate with preferences for redistribution in our data. Last, we regress demand for redistribution on attractiveness and the Big Five personality traits both to correct possible measurement errors and to control for the possible confounding role of personality traits.

Results in column (1) of Table 10 show that personality traits do correlate with the beauty rating: higher extraversion and openness are associated with a higher score in attractiveness. Results in column (2) show a weak correlation between openness and preferences for redistribution. However, in column (3) we find that the correlation between attractiveness and preferences for redistribution holds also when controlling for personality traits. This evidence suggests that the relationship between attractiveness and redistributive preferences is not driven by personality traits.

We also use the Big Five personality traits to build a proxy of self-esteem. Amirazodi and Amirazodi (2011) find that extraversion, conscientiousness, openness, and agreeableness, are positively related to self-esteem, while neuroticism is negatively related to self-esteem. We build an indicator of self-esteem that is one for those whose score is higher than 6 on extraversion, conscientiousness, openness, and agreeableness and lower than 6 on neuroticism, and zero otherwise. We then interact this variable with our variable measuring attractiveness to see if the correlation between attractiveness and support for redistribution appears only when self-esteem is high. Results in Table A8 show that the results do not seem to be driven by higher self-esteem.

[9]Alternatively, we run a principal component analysis among the eight questions concerning the Big Five personality traits and use the scores of the first four components (which are those with an eigenvalue higher or equal to one). The results of this robustness test are in Table A7 and are very similar to the one presented in the main text.

Table 10: Peronality Traits

	(1) Attractiveness	(2) Redistribute Income	(3) Redistribute Income
Attractiveness			-0.089***
			(0.013)
Extraversion	0.058***	-0.005	0.001
	(0.018)	(0.012)	(0.012)
Neuroticism	0.018	-0.016	-0.014
	(0.018)	(0.014)	(0.014)
Conscientiousness	0.010	0.009	0.010
	(0.022)	(0.017)	(0.017)
Openness	0.163***	-0.024*	-0.009
	(0.017)	(0.013)	(0.013)
Agreebleness	0.005	0.021	0.022
	(0.019)	(0.015)	(0.015)
Constant	7.630***	4.517***	5.195***
	(0.416)	(0.301)	(0.313)
Observations	3,074	3,074	3,074
R-squared	0.455	0.155	0.167
Basic Controls	Yes	Yes	Yes
Interviewer FE	Yes	Yes	Yes
Region FE	Yes	Yes	Yes

Notes: The table reports the coefficients of a linear regression. The dependent variable is on a 1-5 scale and measures agreement on income redistribution. Basic controls are age, age squared, health status, gender and marital status. Standard errors are corrected for heteroskedasticity. Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

4 Discussion and conclusion

Our work shows that attractiveness negatively relates to support for redistribution and that attractive individuals are more willing to believe that economic success depends more on individual effort rather than external conditions. These results are consistent with respondents' voting intentions. Indeed, we find that attractive people are more willing to vote for the Free Democratic Party (FDP), which traditionally advocates for lower taxation and limited government intervention (Heinemann and Janeba, 2011).

The economic and political science literature finds a relationship between attractiveness and support for right-wing parties (Arunachalam and Watson, 2018; Peterson and Palmer, 2017). Berggren et al. (2017) show that right-wing politicians are more attractive, and that beauty positively relates with support for conservatism in a sample of young American men. A possible explanation of this evidence is that attractive people develop more conservative preferences because, on average, they earn more. We provide new insights on this topic by explicitly regressing redistributive and political preferences on attractiveness. If good-looking people desire less redistribution because they earn more, controlling for income should make the effect of beauty disappear. However, when we control for household income, employment status, education, and parents' education in our regressions, the effect of beauty on preferences for redistribution still holds, suggesting that the beauty premium associated with higher earnings can only partially explain the relationship between attractiveness and preferences for redistribution.

We try to test other possible mechanisms that might explain our results, and we find that our results seem not to be driven by gender differences[10], anthropometric characteristics, personality traits, or self-esteem. Perhaps, the relationship between attractiveness and redistributive preferences might depend on how attractive individuals rationalize the success they gain thanks to their beauty. An example can be the self-serving bias, i.e. people tend to attribute success to their own actions and failure to external factors. Attractiveness improves a considerable number of socio-economic outcomes, but good-looking subjects might hardly recognize that part of their success depends on their beauty. Deffains et al. (2016) suggest that the self-serving bias plays a crucial role in determining preferences for redistribution. The authors show with an experiment that, when failing, people demand redistribution (and vice-versa) even if failure and success are exogenously determined.

In general, attractive people are treated more favorably and are viewed as more trustworthy (Andreoni and Petrie, 2008; Langlois et al., 2000; Wilson and Eckel, 2006). Berggren et al. (2010) show that good-looking politicians tend to gain more votes because they appear to be more competent and trustworthy. Being treated more favorably and being considered more competent or more trustworthy are kinds of advantages that might influence the formation of political preferences as well as attitudes and beliefs.

[10]This is an interesting difference with respect to what Berggren et al. (2017) find, as they show that good-look is correlated with conservatism in young men only. There can be several reasons that might explain this difference. Most of all, we focus on a group of German adults, while Berggren et al. (2017) focus on a sample of young Americans. Such divergences in the characteristics of the sample make it difficult to pinpoint what drives the difference in the results.

Another possible explanation of our results comes from evolutionary theories. According to evolutionary psychology, formidability is negatively associated with attitudes towards redistribution (Belmi and Neale, 2014; Price et al., 2011). However, these results have been found in men only. An exception is Richardson (2020) that finds height to be associated with lower support for redistribution both in males and females.

Extensive research shows that beauty affects several outcomes such as earnings, employment, and happiness (see e.g. Hamermesh, 2011; Hamermesh and Abrevaya, 2013), but less is known about how beauty might shape people's preferences. Our work attempts to shed light on the relationship between attractiveness, political preferences, and meritocratic beliefs also questioning the possible mechanisms that drive these associations.

Unfortunately, the nature of our data does not allow us to test all the possible channels behind our results. Additional research is needed to further investigate the relationship between attractiveness, political preferences, and meritocratic beliefs. Specifically, it would be interesting to understand how attractive individuals rationalize the social success they receive thanks to beauty.

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Appendix A

Table A1: Correlation Table

	Decent Income	Secure Income in Hardship	Success Depends on Effort
Decent Income	1		
Secure Income in Hardship	0.211***	1	
Success Depends on Effort	-0.265***	-0.180***	1

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table A2: Interviewer Interactions

	(1) Redistribute Income	(2) Decent Income	(3) Secure Income in Hardship	(4) Success Depends on Effort
Attractiveness	-0.051***	-0.100***	-0.063***	0.068***
	(0.015)	(0.014)	(0.012)	(0.012)
Constant	4.189***	2.905***	4.828***	0.787
	(0.594)	(0.888)	(0.721)	(0.748)
Observations	4,069	3,618	3,618	3,618
R-squared	0.427	0.464	0.453	0.491
Basic Controls	Yes	Yes	Yes	Yes
Interviewer FE	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes
Region FE	Yes	Yes	Yes	Yes
Interviewer Gender x Interviewee Gender	Yes	Yes	Yes	Yes
Interviewer Age FE x Interviewee Age FE	Yes	Yes	Yes	Yes
Interviewer Education x Interviewee Education	Yes	Yes	Yes	Yes

Notes: See notes in tables 2,3,4, and 5. Standard errors are corrected for heteroskedasticity.
Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

Table A3: Standard Error Clustered at Interviewer Level

	(1) Redistribute Income	(2) Decent Income	(3) Secure Income in Hardship	(4) Success Depends on Effort
Attractiveness	-0.091***	-0.100***	-0.051***	0.051***
	(0.012)	(0.009)	(0.008)	(0.008)
Constant	4.333***	3.721***	5.394***	1.323***
	(0.298)	(0.360)	(0.278)	(0.269)
Observations	4,896	4,469	4,469	4,469
R-squared	0.156	0.161	0.154	0.170
Basic Controls	Yes	Yes	Yes	Yes
Interviewer FE	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes
Region FE	Yes	Yes	Yes	Yes

Notes: See notes in tables 2,3,4, and 5. Standard errors are corrected for heteroskedasticity.
Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

Table A4: Linear Probability Model

	(1) Redistribute Income	(2) Decent Income	(3) Secure Income in Hardship	(4) Success Depends on Effort
Attractiveness	-0.034***	-0.044***	-0.015***	-0.029***
	(0.004)	(0.005)	(0.004)	(0.005)
Constant	0.753***	1.221***	1.678***	0.690**
	(0.189)	(0.242)	(0.286)	(0.320)
Observations	4,896	4,469	4,469	4,469
R-squared	0.128	0.151	0.111	0.161
Basic Controls	Yes	Yes	Yes	Yes
Interviewer FE	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes
Region FE	Yes	Yes	Yes	Yes

Notes: See notes in tables 2,3,4, and 5. Standard errors are corrected for heteroskedasticity.
Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

Table A5: Health Status

	(1) Redistribute Income	(2) Decent Income	(3) Secure Income in Hardship	(4) Success Depends on Effort
Attractiveness	-0.077***	-0.096***	-0.035***	0.039***
	(0.011)	(0.012)	(0.010)	(0.011)
Good Health	0.063	0.032	0.049	-0.073*
(Base category=Very Good Health)	(0.048)	(0.047)	(0.039)	(0.041)
Satisfactory Health	0.246***	0.115**	0.112**	-0.078
	(0.055)	(0.056)	(0.045)	(0.048)
Health not that Good	0.300***	0.150**	0.231***	-0.050
	(0.067)	(0.073)	(0.055)	(0.063)
Bad Health	0.264**	0.112	0.305***	-0.245**
	(0.103)	(0.108)	(0.085)	(0.099)
Constant	4.237***	3.920***	5.304***	1.339***
	(0.531)	(0.408)	(0.470)	(0.417)
Observations	4,896	3,186	3,186	3,186
R-squared	0.163	0.184	0.191	0.191
Basic Controls	Yes	Yes	Yes	Yes
Interviewer FE	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes
Region FE	Yes	Yes	Yes	Yes

Notes: See notes in tables 2,3,4, and 5. Standard errors are corrected for heteroskedasticity.
Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

Table A6: Body-Mass Index (BMI) Dummy

	(1) Redistribute Income	(2) Decent Income	(3) Secure Income in Hardship	(4) Success Depends on Effort	(5) Redistribute Income	(6) Decent Income	(7) Secure Income in Hardship	(8) Success Depends on Effort
Attractiveness					-0.082***	-0.095***	-0.060***	0.057***
					(0.023)	(0.013)	(0.010)	(0.011)
BMI>30	0.287***	0.071	0.112***	-0.052	0.221**	0.012	0.074**	-0.017
	(0.093)	(0.050)	(0.036)	(0.043)	(0.094)	(0.050)	(0.036)	(0.044)
Constant	3.408***	2.866***	3.964***	2.040***	4.112***	3.688***	4.486***	1.546***
	(0.533)	(0.389)	(0.256)	(0.316)	(0.567)	(0.395)	(0.261)	(0.334)
Observations	1,105	2,518	2,518	2,518	1,105	2,518	2,518	2,518
R-squared	0.230	0.127	0.118	0.140	0.239	0.146	0.131	0.149
Basic Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Interviewer FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Region FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Notes: See notes in tables 2,3,4, and 5. Standard errors are corrected for heteroskedasticity.
Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

Table A7: Big Five Personality Traits (PCA)

	(1) Attractiveness	(2) Redistribute Income	(3) Redistribute Income
Attractiveness			-0.090***
			(0.013)
Scores for component 1	0.191***	-0.022	-0.005
	(0.021)	(0.015)	(0.015)
Scores for component 2	-0.090***	0.023	0.015
	(0.026)	(0.019)	(0.019)
Scores for component 3	0.121***	0.004	0.015
	(0.029)	(0.021)	(0.021)
Scores for component 4	-0.033	0.021	0.018
	(0.030)	(0.022)	(0.022)
Constant	9.414***	4.422***	5.272***
	(0.349)	(0.243)	(0.271)
Observations	3,074	3,074	3,074
R-squared	0.452	0.154	0.167
Basic Controls	Yes	Yes	Yes
Interviewer FE	Yes	Yes	Yes
Region FE	Yes	Yes	Yes

Notes: See notes in tables 2,3,4, and 5.. Standard errors are corrected for heteroskedasticity. Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

Table A8: Self-Esteem Measured through Personality Traits

	(1) Redistribute Income
Attractiveness	-0.088***
	(0.013)
High Self-Esteem	0.378
	(0.329)
High Self-Esteem x Attractiveness	-0.051
	(0.043)
Constant	5.251***
	(0.268)
Observations	3,074
R-squared	0.166
Basic Controls	Yes
Interviewer FE	Yes
Region FE	Yes

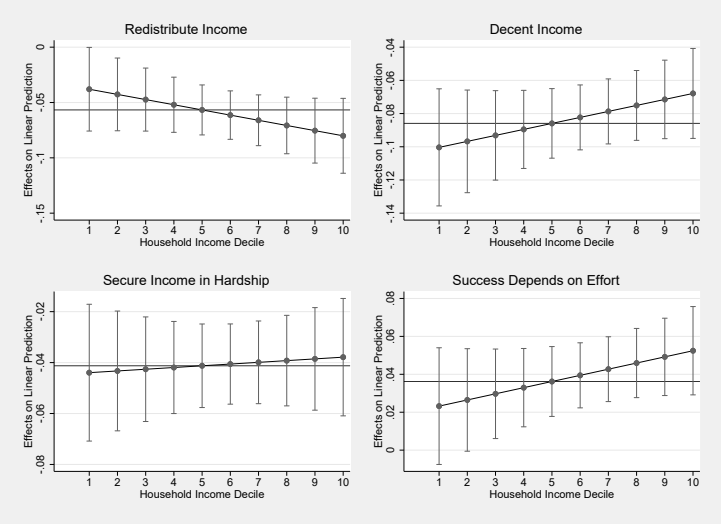
Notes: See notes in tables 2,3,4, and 5. Standard errors are corrected for heteroskedasticity.
Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

Table A9: Interaction with Income

	(1) Redistribute Income	(2) Decent Income	(3) Secure Income in Hardship	(4) Success Depends on Effort
Attractiveness	-0.060***	-0.097***	-0.045***	0.032**
	(0.015)	(0.015)	(0.011)	(0.013)
Income above fifth decile	-0.065	-0.287**	-0.080	-0.127
	(0.142)	(0.127)	(0.099)	(0.113)
Income above fifth decile x Attractiveness	-0.028	0.012	-0.002	0.025*
	(0.018)	(0.017)	(0.013)	(0.015)
Constant	4.341***	3.852***	5.421***	1.410***
	(0.512)	(0.442)	(0.526)	(0.442)
Observations	4,896	4,469	4,469	4,469
R-squared	0.164	0.168	0.156	0.171
Basic Controls	Yes	Yes	Yes	Yes
Interviewer FE	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes
Region FE	Yes	Yes	Yes	Yes

Notes: See notes in tables 2,3,4, and 5. Standard errors are corrected for heteroskedasticity.
Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

Figure A1: Income interaction



Notes: The figure reports the coefficients of attractiveness for each income decile. The confidence interval is at 5 % level.

Appendix B

Table B1: Gender Split

	(1) Redistribute Income (Male)	(2) Decent Income (Male)	(3) Secure Income in Hardship (Male)	(4) Success Depends on Effort (Male)	(5) Redistribute Income (Female)	(6) Decent Income (Female)	(7) Secure Income in Hardship (Female)	(8) Success Depends on Effort (Female)
Attractiveness	-0.054***	-0.071***	-0.041***	0.039***	-0.045***	-0.071***	-0.038***	0.031**
	(0.018)	(0.015)	(0.012)	(0.013)	(0.015)	(0.015)	(0.012)	(0.013)
Employed	-0.082	-0.053	-0.044	0.005	-0.100*	-0.126**	-0.059	0.095**
	(0.072)	(0.059)	(0.049)	(0.052)	(0.058)	(0.049)	(0.040)	(0.043)
Degree	-0.267***	-0.047	-0.075	0.155***	-0.080	-0.178***	-0.088*	0.154***
	(0.074)	(0.055)	(0.049)	(0.048)	(0.071)	(0.060)	(0.050)	(0.052)
Household Income	-0.253***	-0.156***	-0.121***	0.104***	-0.263***	-0.186***	-0.079**	0.076**
	(0.052)	(0.041)	(0.034)	(0.035)	(0.049)	(0.041)	(0.034)	(0.035)
Father Tertiary Education	-0.200**	-0.098	-0.044	0.025	-0.174**	-0.060	-0.046	0.059
	(0.078)	(0.062)	(0.056)	(0.052)	(0.076)	(0.061)	(0.048)	(0.052)
Mother Tertiary Education	-0.113	-0.054	-0.024	0.055	-0.227***	0.065	-0.018	0.072
	(0.087)	(0.071)	(0.063)	(0.058)	(0.088)	(0.075)	(0.060)	(0.065)
Constant	6.846***	5.819***	5.273***	1.039***	6.115***	4.398***	4.926***	1.418***
	(0.931)	(0.435)	(0.348)	(0.378)	(0.749)	(0.573)	(0.633)	(0.541)
Observations	2,412	2,248	2,248	2,248	2,446	2,151	2,151	2,151
R-squared	0.225	0.221	0.219	0.245	0.234	0.258	0.228	0.246
Basic Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Interviewer FE	Yes	Yes	Yes	Yes	Yes		Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Region FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Notes: The table reports the coefficients of a linear regression. Basic controls are age, age squared, gender and marital status. Standard errors are corrected for heteroskedasticity.
Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

Table B2: Self-Esteem

	(1) Decent Income	(2) Secure Income in Hardship	(3) Success Depends on Effort
Attractiveness	-0.073***	-0.026*	0.023
	(0.016)	(0.013)	(0.014)
Personal Ambitions Fulfilled	0.065	0.031	-0.025
(Benchmark= More than Fullfilled)	(0.078)	(0.067)	(0.073)
Personal Ambitions Fulfilled Not Quite Fulfilled	0.167**	0.135*	-0.082
	(0.082)	(0.069)	(0.075)
Personal Ambitions Fulfilled Not At All Fulfilled	0.250*	0.126	-0.099
	(0.145)	(0.114)	(0.126)
Employed	-0.117**	-0.036	0.071
	(0.054)	(0.046)	(0.048)
Degree	-0.129**	-0.081	0.249***
	(0.063)	(0.055)	(0.057)
Household Income	-0.134***	-0.047	0.037
	(0.047)	(0.039)	(0.040)
Father Tertiary Education	-0.105	-0.042	0.033
	(0.068)	(0.054)	(0.057)
Mother Tertiary Education	-0.058	-0.073	0.052
	(0.078)	(0.071)	(0.065)
Constant	4.488***	4.625***	2.325***
	(0.464)	(0.367)	(0.395)
Observations	1,982	1,982	1,982
R-squared	0.188	0.176	0.155
Basic Controls	Yes	Yes	Yes
Interviewer FE	Yes	Yes	Yes
Region FE	Yes	Yes	Yes

Notes: The table reports the coefficients of a linear regression. Basic controls are age, age squared, gender and marital status. Standard errors are corrected for heteroskedasticity.
Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

Table B3: Body-Mass Index (BMI)

	(1) Redistribute Income	(2) Decent Income	(3) Secure Income in Hardship	(4) Success Depends on Effort	(5) Redistribute Income	(6) Decent Income	(7) Secure Income in Hardship	(8) Success Depends on Effort
Attractiveness					-0.042*	-0.072***	-0.042***	0.037***
					(0.024)	(0.013)	(0.010)	(0.011)
BMI	0.011	0.004	0.009***	-0.007*	0.008	0.000	0.007**	-0.005
	(0.008)	(0.004)	(0.003)	(0.003)	(0.008)	(0.004)	(0.003)	(0.004)
Employed	-0.088	-0.090*	-0.071*	0.063	-0.080	-0.068	-0.058	0.052
	(0.093)	(0.049)	(0.037)	(0.042)	(0.092)	(0.049)	(0.037)	(0.042)
Degree	-0.399***	-0.084*	-0.070*	0.076*	-0.389***	-0.074	-0.064	0.071*
	(0.127)	(0.048)	(0.042)	(0.042)	(0.127)	(0.048)	(0.041)	(0.042)
Household Income	-0.285***	-0.203***	-0.150***	0.133***	-0.267***	-0.170***	-0.130***	0.115***
	(0.077)	(0.035)	(0.028)	(0.029)	(0.077)	(0.036)	(0.028)	(0.029)
Father Tertiary Education	-0.333**	-0.084	-0.041	0.044	-0.329**	-0.066	-0.030	0.035
	(0.136)	(0.056)	(0.045)	(0.046)	(0.136)	(0.055)	(0.045)	(0.046)
Mother Tertiary Education	-0.245	0.022	0.023	0.107**	-0.240	0.021	0.022	0.108**
	(0.154)	(0.066)	(0.051)	(0.054)	(0.154)	(0.065)	(0.051)	(0.054)
Constant	5.785***	4.577***	5.056***	1.021**	6.058***	4.996***	5.298***	0.807**
	(0.830)	(0.522)	(0.350)	(0.404)	(0.832)	(0.516)	(0.349)	(0.411)
Observations	1,105	2,518	2,518	2,518	1,105	2,518	2,518	2,518
R-squared	0.289	0.151	0.141	0.160	0.292	0.161	0.146	0.164
Basic Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Interviewer FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Region FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Notes: The table reports the coefficients of a linear regression. Basic controls are age, age squared, gender and marital status. Standard errors are corrected for heteroskedasticity.
Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

Table B4: Peronality Traits

	(1) Attractiveness	(2) Redistribute Income	(3) Redistribute Income
Attractiveness			-0.050***
			(0.016)
Extraversion	0.060***	-0.004	0.006
	(0.020)	(0.015)	(0.015)
Neuroticism	0.023	-0.026*	-0.014
	(0.021)	(0.016)	(0.015)
Conscientiousness	-0.004	0.023	0.020
	(0.026)	(0.021)	(0.020)
Openness	0.156***	-0.014	0.022
	(0.020)	(0.015)	(0.015)
Agreebleness	0.005	0.015	0.017
	(0.022)	(0.017)	(0.017)
Employed			-0.110*
			(0.061)
Degree			-0.342***
			(0.086)
Household Income			-0.296***
			(0.049)
Father Tertiary Education			-0.325***
			(0.082)
Mother Tertiary Education			-0.150
			(0.095)
Constant	7.288***	4.355***	6.837***
	(0.473)	(0.362)	(0.498)
Observations	2,273	2,273	2,273
R-squared	0.466	0.166	0.229
Basic Controls	Yes	Yes	Yes
Interviewer FE	Yes	Yes	Yes
Region FE	Yes	Yes	Yes

Notes: The table reports the coefficients of a linear regression. Basic controls are age, age squared, gender and marital status. Standard errors are corrected for heteroskedasticity.
Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

Appendix C

Table C1: Main Results Ordered Probit (1)

	(1) Redistribute Income	(2) Redistribute Income	(3) Redistribute Income	(4) Redistribute Income
Attractiveness	-0.096***	-0.080***	-0.060***	-0.059***
	(0.011)	(0.012)	(0.012)	(0.012)
Employed		-0.199***	-0.090**	-0.105**
		(0.041)	(0.044)	(0.044)
Degree		-0.331***	-0.257***	-0.190***
		(0.043)	(0.044)	(0.045)
Household Income			-0.276***	-0.270***
			(0.035)	(0.034)
Father Tertiary Education				-0.201***
				(0.048)
Mother Tertiary Education				-0.143***
				(0.054)
Observations	4,896	4,896	4,896	4,896
Basic Controls	Yes	Yes	Yes	Yes
Interviewer FE	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes
Region FE	Yes	Yes	Yes	Yes

Notes: The table reports the coefficients of an ordered probit. Basic controls are age, age squared, gender and marital status. Standard errors are corrected for heteroskedasticity.
Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

Table C2: Main Results Ordered Probit (2)

	(1) Decent Income	(2) Decent Income	(3) Decent Income	(4) Decent Income
Attractiveness	-0.128***	-0.115***	-0.100***	-0.098***
	(0.012)	(0.012)	(0.013)	(0.013)
Employed		-0.191***	-0.116***	-0.120***
		(0.043)	(0.045)	(0.045)
Degree		-0.220***	-0.163***	-0.135***
		(0.045)	(0.046)	(0.047)
Household Income			-0.217***	-0.214***
			(0.036)	(0.036)
Father Tertiary Education				-0.084
				(0.053)
Mother Tertiary Education				-0.029
				(0.062)
Observations	4,469	4,469	4,469	4,469
Basic Controls	Yes	Yes	Yes	Yes
Interviewer FE	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes
Region FE	Yes	Yes	Yes	Yes

Notes: The table reports the coefficients of an ordered probit. Basic controls are age, age squared, gender and marital status. Standard errors are corrected for heteroskedasticity.
Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

Table C3: Main Results (3)

	(1) Secure Income in Hardship	(2) Secure Income in Hardship	(3) Secure Income in Hardship	(4) Secure Income in Hardship
Attractiveness	-0.090***	-0.080***	-0.066***	-0.065***
	(0.013)	(0.013)	(0.013)	(0.013)
Employed		-0.135***	-0.069	-0.073
		(0.047)	(0.049)	(0.049)
Degree		-0.193***	-0.143***	-0.116**
		(0.049)	(0.049)	(0.051)
Household Income			-0.193***	-0.190***
			(0.038)	(0.038)
Father Tertiary Education				-0.079
				(0.054)
Mother Tertiary Education				-0.035
				(0.066)
Observations	4,469	4,469	4,469	4,469
Basic Controls	Yes	Yes	Yes	Yes
Interviewer FE	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes
Region FE	Yes	Yes	Yes	Yes

Notes: The table reports the coefficients of an ordered probit. Basic controls are age, age squared, gender and marital status. Standard errors are corrected for heteroskedasticity.
Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

Table C4: Main Results (4)

	(1) Success Depends on Effort	(2) Success Depends on Effort	(3) Success Depends on Effort	(4) Success Depends on Effort
Attractiveness	0.075***	0.062***	0.052***	0.050***
	(0.012)	(0.012)	(0.013)	(0.013)
Employed		0.134***	0.086*	0.092**
		(0.044)	(0.045)	(0.045)
Degree		0.279***	0.243***	0.206***
		(0.046)	(0.047)	(0.048)
Household Income			0.137***	0.134***
			(0.034)	(0.034)
Father Tertiary Education				0.056
				(0.051)
Mother Tertiary Education				0.130**
				(0.059)
Observations	4,469	4,469	4,469	4,469
Basic Controls	Yes	Yes	Yes	Yes
Interviewer FE	Yes		Yes	Yes
Year FE	Yes	Yes	Yes	Yes
Region FE	Yes	Yes	Yes	Yes

Notes: The table reports the coefficients of an ordered probit. The dependent variable is on a 1-4 scale and measures agreement on providing a basic income in times of hardship. Basic controls are age, age squared, gender and marital status. Standard errors are corrected for heteroskedasticity.
Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1