Beyond selfishness: the interaction of income and human values in shaping Europeans' ideology

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Abstract

The left-right scale of political orientation plays a pivotal role in shaping individual behaviour and government policies, particularly in Western countries. Rational-choice theory suggests that individuals with lower (higher) incomes lean towards left-wing (right-wing) redistributive policies. Empirical evidence has, however, challenged this classical view. Building on cognitive dissonance theory, neuroeconomics, and social psychology, this paper provides a more comprehensive view of ideology formation based on how individuals balance selfishness with other human motivations. The paper uses data from the European Social Survey and Schwartz's scale of human values to estimate models of individuals' political orientation, considering the potential endogeneity of income. The results show that relative income and the social values of *Conservation* and *Self-Transcendence* strongly affect ideology. Low-income individuals prioritize self-interest, however, while also preserving other motivations. This framework helps to explain heterogeneity in political preferences, as well as communication discourses and policies designed to fit different citizens' profiles.

1. Introduction

Left-right political orientation may be defined as a mass belief system that focuses on the directional goal of the proper order of society and ways this goal can be achieved (Erikson and Tedin 2019, 140). An amalgam of values and attitudes structured in a dimensional space, political orientation is one of the main anchors explaining political behaviour, and is a worldwide phenomenon (Noël, Thérien, and Boucher 2021). Under the voting model (Downs 1957), individuals' income would determine their selfish policy demands. Classical approaches in political science and sociology would reach similar conclusions on the relationship between social class and ideology. Leftist parties' emphasis on redistribution and equality would lead individuals with low social status to identify themselves with the left (Lipset 1960; Evans and Opacic 2022).

Empirical evidence from disconnected research in several social sciences has shown, however, that many factors affect individuals' preferences for redistribution (Mengel and Weidenholzer 2023). Contextual factors may alter citizens positioning within the left–right dimension (Kelly and Enns 2010; Otjes 2018). Evidence also exists of "unnatural" voters, such as low-income individuals voting for right-wing parties (Achterberg and Houtman 2006; Jost et al. 2017). This paper aims to explain such diversity, drawing on recent contributions in social psychology that emphasize how inner motivational needs such as security and certainty shape personality (Sagiv and Schwartz 2022). No previous research has analysed how individuals balance economic self-interest and human values to form their political ideology.

The paper analyses the role of income in shaping individuals' political orientation after considering the complex heterogeneity of personal preferences captured by human values. I adopt an eclectic view, building on rational choice theory, cognitive dissonance theory, behavioural economics and neuroeconomics, among other disciplines, and a practical approach to social measurement. My main hypotheses are simple. People define their political preferences attending to both their economic status and their inner general motivations. Low-income individuals tend, however, to be less concerned about general social issues, defined as *social* human values, but may prioritize some *personal* human values closely related to selfish motivations.

Using cross-sectional data from the European Social Survey (ESS), I focus on the interaction effects of household income and human values to explain subjective placement on the left-right scale of political orientation. ESS data enable calculation of Schwartz's (1992) four- and ten-

dimension scale of general motivations, classified as *social* or *personal* human values. I estimate models by Ordinary Least Squares, Ordered Probit, and Two-Stage Least Squares. To control for potential endogeneity, having low income or low occupational class is instrumented by parental information. Additionally, human values are measured as residuals from regressions of human values on income.

Confirming the selfish hypothesis, the study results show that higher income levels are strongly associated with stronger right-wing orientations. This finding is compatible with a strong effect of *social* human values (*Conservation* and *Self-transcendence*), which are related to preferences about the proper order of society. For people in the lowest 40% of national income, however, income becomes the main factor affecting political orientation, reducing the importance of *social* human values in defining political preferences. For these citizens, conversely, the rightist *personal* value of *Power* becomes slightly leftist, confirming a redistributive motivation.

The paper contributes to the literature in two ways. First, the results reconcile the selfish hypothesis with a dispersion of voting behaviours in the same income groups. Second, the paper helps us to understand and better design parties' and governments' strategies and policies to fit different citizens' profiles, including communication policies.

The rest of this paper is organized as follows. Section 2 reviews the literature on political orientation, income, and human values, and posits five hypotheses. Section 3 describes the data and methodology. Section 4 presents the results. Section 5 concludes.

2. Theoretical framework

2.1. Classical approaches to economic status and political orientation

In Western democracies especially, the left-right divide has traditionally been connected to a social class cleavage and reflects historical trajectories of industrialization, as well as tensions between capital and labour, and party alignments (Caprara and Vecchione 2018). "In virtually every economically developed country the lower income groups vote mainly for parties of the left" (Lipset 1960, 220–24). That classical perspective about the right-left distinction was introduced in economic theory through the theory of rational voting (Downs 1957). Lower-income groups would vote for left-wing parties, as these parties would y prioritize equality and redistribution. High-income groups, in contrast, would tend to advocate reduction of income

taxes and thus vote for right-wing parties. Sociological or political approaches based on class adscription and socialization have reached similar conclusions (Evans and Opacic 2022).[1] Based on these classical perspectives, I formulate the following hypothesis:

H1: The lower a person's economic position, the more left-wing their political orientation.

2.2. Human values in economics and social psychology

In traditional economic models, exogenous individuals' attributes are summarized in simple parameters of the utility function, such as rates of time preference or risk aversion (Schaewitz, Wang, and Rieger 2022). Recent formal models have incorporated more complex motivations and contextual frames of individual identity.[2] Psychology and political science have also recognized moral and social attitudes in ideology.[3] Experimental evidence shows the social values affect the tendency to cooperate (te Velde and Louis 2022). I propose beginning this analysis by recognizing the existence of different human motivations, which may conflict.

Shalom H. Schwartz (1992) defines *values* as broad motivational goals that guide behaviour and function as criteria for judging people and events in all domains of life. Because they have a genetic component (Funk et al. 2013; Zapko-Willmes et al. 2021), they may be considered as exogenous preferences on birth.[4] Schwartz's theory is applicable across different countries (Sagiv and Schwartz 2022) and has inspired ESS's approach to measuring human values, the method used in this paper.

Each value is defined by the goals it seeks to achieve on a motivational continuum. Values form a circular structure (see Figure 1). The more compatible any two values are, the closer they are on the circle; the more the values conflict, the farther apart they are. The ten basic values may be grouped into four higher-order values that correspond to two goals or motivational principles, the *personal*/*social* axis, and the *self-protection*/*anxiety* axis (see Table 1 for further details). The *personal*/*social* axis is the most relevant for this paper.

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[1] Indeed, political consistency with certain values may be understood as part of the cost-benefit analysis to be included or excluded in informal social networks (Yamamura 2011).
[2] See, among others, Bénabou (2008), Alesina et al. (2012), and Kim (2019).
[3] See Feldman (2013), Laméris et al. (2018), and Evans and Opacic (2022).
[4] Assuming the exogeneity of human values is also a reasonable empirical device to focus on the role of income for a given realistic diversity of human motivations. See the discussion in the methodological section.

Figure 1 - Circular structure of the ten basic values, four higher-order values, and two underlying motivational sources.

Source: Sortheix and Schwartz (2017).

Human values associated with the *social* dimension – *Conservation* and *Self-transcendence* – regulate how individuals relate to others and provide a normative guide to the proper social order (Erikson and Tedin 2019). Previous research has shown that social values have a stronger impact in predicting left-right positions than do personal human values.[5] I thus propose the following hypothesis:

> **H2**: Social human values (*Self-transcendence* and *Conservation*) have a stronger impact in predicting political orientation than do personal values (*Openness to change* and *Self-enhancement*).

The *self-protection/anxiety* axis of human values may also help to explain political biases, particularly due to management of threat and uncertainty. *Conservation* values' (*Security*, *Tradition*, *Conformity*) emphasis on social order and national security is based on the need to control anxiety and threat to protect the self, motivations that may be considered rightist. Conversely, social *Self-transcendence* (*Benevolence* and *Universalism*) promotes the welfare of

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[5] See Thorisdottir et al. (2007), Aspelund et al. (2013); Caprara and Vecchione (2018); and Wojcik et al. (2021).

others and equal opportunity as a way of expanding one's identity, indicating leftist preferences.

Table 1. Four higher-order value dimensions, ten basic values with their motivational goals, and the 21 items of the European Social Survey used to measure them.

Conservation: Values that emphasize order, self-restriction, and resistance to change**.**
  Security - Safety, harmony, and stability of society, of relationships and of self
    v05 - Important to live in secure and safe surroundings
    v14 - Important that government is strong and ensures safety
  Conformity - Restraint of actions likely to upset others and violate social expectations or norms
    v07 - Important to do what is told and follow rules
    v16 - Important to behave properly
  Tradition - Respect, commitment and acceptance of the customs and ideas that traditional culture or religion provide
    v09 - Important to be humble and modest, not draw attention
    v20 - Important to follow traditions and customs

Openness to change: Values that emphasize independence of thought, action and feeling; and readiness for change.
  Self-direction - Independent thought and action-choosing, creating, exploring
    v01 – Importance of thinking new ideas and being creative
    v11 – Importance of making one's own decisions and being free
  Stimulation - Excitement, novelty, and challenge in life
    v06 – Importance of trying new and different things in life
    v15 – Importance of seeking adventures and having an exciting life
  Hedonism - Pleasure and sensuous gratification for oneself
    v10 – Importance of having a good time
    v21 – Importance of seeking fun and things that give pleasure

Self-enhancement: Values that emphasize pursuit of one's interests, relative success, and dominance.
  Achievement - Personal success by demonstrating competence according to social standards
    v04 – Importance of showing abilities and being admired
    v13 – Importance of being successful and having people recognize achievements
  Power - Social status and prestige, control, or dominance over people and resources
    v02 – Importance of being rich, having money and expensive things
    v17 – Importance of getting others' respect

Self-transcendence: Values that emphasize concern for the welfare and interests of others.
  Benevolence - Preservation and enhancement of the welfare of people with whom one is in frequent personal contact
    v12 – Importance of helping people and caring for others' well-being
    v18 – Importance of being loyal to friends and devoting oneself to people close to one
  Universalism - Understanding and protection of the welfare of all and of the environment
    v03 – Importance of treating people equally and having equal opportunities
    v08 – Importance of understanding different people
    v19 – Importance of caring for nature and environment

Source: Bruna (2022), based on Sortheix and Schwartz (2017) and ESS documentation.

The political bias of the other two aggregated values is less clear. In Figure 1 and Table 1, *Achievement* appears as a mix of self-protection and self-expansion orientation. *Power*, the other basic value of *Self-enhancement*, is however a self-protection value with personal focus related to selfish dominance over people and resources and thus generally biased towards right-ist ideologies.

Previous empirical literature yields inconsistent results about the personal self-expansion value of *Openness to change* (*Stimulation*, *Self-direction*, *Hedonism*).[6] As Table 1 shows, three of the six survey items defining *Openness to change* (Items v11, v10, and v21) are related to individualism or materialism, which might motive right-wing preferences (Pitlik and Rode 2017). The other three items (v01, v06, and v15) are related to creativity and readiness for change, which may have more ambiguous ideological implications. If individualism is the key factor determining political orientation, *Openness to change* would be a rightist value.

In line with the previous arguments, I propose the following hypothesis:

H3: *Conservation* and *Self-enhancement* values predict a right-wing political orientation, whereas *Self-transcendence* values predict a left-wing orientation. *Openness to change* is a rightist value—at least if the individualist or materialistic component correlates with or dominates the component of readiness to change.

Although Schwartz's theory of human values applies generally across different countries, the meaning of ideological labels and individuals' attitudes towards the historical party system may vary for Central and Eastern European (CE) countries, as many studies confirm.[7] To control the main results of this paper for this historical idiosyncrasy, I propose the following hypothesis:

H4: The impact of human values on political orientation is different in Central and Eastern European countries than in Western European countries.

2.3. *Political orientation as the interaction effect of income and human values*

Someone may hold conservative values despite having low economic status and vice versa. Although this behaviour may be considered "unnatural" from a social class perspective

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[6] See Piurko et al. (2011), Caprara et al. (2017) and others.
[7] See Thorisdottir et al. (2007), Piurko et al. (2011), Aspelund et al. (2013), Roets et al. (2014), Arikan and Ben-Nun Bloom (2015), Pacheco and Owen (2015), Otjes (2018), Wojcik et al. (2021), and Schaewitz et al. (2022).

(Achterberg and Houtman, 2006), it is not exceptional. Some literature has proposed contextual explanations (Kelly and Enns 2010; Kim 2019). I focus on the heterogeneity of human motivations.

In political psychology, system justification theory helps to explain why the disadvantaged sometimes hold the same attitudes as the privileged, even at the expense of their economic interests (Jost 2017; Jost et al. 2017). Believing that the existing social order is desirable serves fundamental psychological needs for certainty, security, and social fit. Conservative ideology to preserve the status quo may thus provide a psychological advantage of helping one to accept one's life. *Conformity* (a *Conservation* value) arises when agents are sufficiently motivated by esteem to sacrifice intrinsic utility to fit in the societal norm (Bernheim 1994). This motivation may be very strong (te Velde and Louis 2022). System justification would reduce an ideological dissonance in favour of the economic system, particularly for those of lower income. It does not help, however, to explain why some privileged individuals are left-wingers.

Cognitive dissonance theory (Festinger 1957) provides a more general perspective. Individuals may experience a conflict between their preferences, attitudes, and behaviours, causing unpleasant sensations. To reduce this feeling of dissonance, individuals adjust their preferences to make them more consistent. The general motivations synthesized as human values may also condition the management of information related to particular beliefs (Iglesias, López, and Sántos 2013; Hoy, Toth, and Merdikawati 2024). Individuals might adjust priorities about different degrees selfishness and human values when configuring their political orientation. Similarly, diverse preferences may cooperate or compete, depending on the situation or the influence of other factors (Brown-Iannuzzi, Lundberg, and McKee 2017; Kim 2019). Recent advances in behavioural economics and neuroeconomics are part of a research agenda relating certain regions of the brain to the need to improve consistency between beliefs and behaviour (Loewenstein and Molnar 2018).

My eclectic approach also considers the problem of measurement. This paper uses an empirical definition of human values built on 21 survey items (see Table 1). Since Schwart's scale is designed to be universal, it may involve some practical ambiguity when applied to explain a specific dependent variable. In the previous section, I discussed the issue of individualism and

readiness to change in the empirical definition of *Openness to change*.[8] Further, several degrees of selfishness are present in the empirical indicators of various basic human values, such as *Security* (in the four higher-order values of *Conservation*), *Hedonism* (in *Openness to Change*), and *Power* (in *Self-enhancement*). I conjecture that the ideological effects of individualist and materialistic motivations will be higher for citizens with lower income.

People with low income may be less concerned about general social items. General issues considered in social values of *Conservation* (such as v14 or v20 in Table 1) or *Self-transcendence* (such as v03 or v19) would be less relevant to the formation of ideology of low-income people. Additionally, for these individuals, the rightist pursuit of status underlying *Self-enhancement* (*Achievement*, *Power*) would be moderated by selfish support for leftist redistributive policies. I propose the following source of heterogeneity in the effects of income and values:

H5: A relatively low income moderates the rightist (*Conservation*) and leftist (*Self-transcendence*) ideological biases of *social* human values and the rightist orientation of the *personal* value of *Self-enhancement*.

3. Data and methodology

3.1. Data

I use Round 8 of the ESS (year 2016), which surveys citizens from 23 countries.[9] The dependent variable is subjective placement on the left-right scale, an eleven11-category variable. The original 0-10 labels[10] were transformed into 1-11 and reduced to the following three labels for one of the models described below: *left* for scores from 1 to 4 (21.2% of the observations without missing data), *centre* for 5 to 7 (53.8%), and *right* for 8 to 11 (25.0%).

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[8] Another example: one of the items defining *Benevolence* (v18) may capture the importance given to family (Bruna 2022), which would involve an individualist rightist political orientation, while other social items included in *Self-transcendence* would have a leftist orientation.

[9] Israel was excluded from this study but including it does not change the main conclusions.

[10] "In politics people sometimes talk of 'left' and 'right'. Using this card, where would you place yourself on this scale, where 0 means the left and 10 means the right?"

The intra-class correlation coefficient (ICC) of the dependent variable is only 2.7%.[11] The main source of dispersion in political orientation is thus given by individual, not country, differences. This result implies that possible political economy explanations are not very promising for this sample. Results presented below, however, are controlled for the possible existence of some European macro-regional patterns: Western Europe (8 countries); Southern Europe (3 countries); Northern Europe (4 countries); and Central and Eastern Europe, CE (7 countries).[12]

Table 2. Descriptive statistics of variables for individuals

	Mean	Standard deviation	Median	Minimum	Maximum
Political orientation (1-11)	6.1	2.2	6.0	1.0	11.0
Political orientation (1-3)	2.0	0.7	2.0	1.0	3.0
Household's total net income by national deciles (1-10)	5.3	2.7	5.0	1.0	10.0
Household's total net income by national quintiles (1-5)	3.1	1.4	3.0	1.0	5.0
Low income (L): lower 40% of national deciles (0-1)	0.3	0.5	0.0	0.0	1.0
Low class (L): Skilled & unskilled workers (0-1)	0.5	0.5	0.0	0.0	1.0
Father's highest education level (1-7)	3.0	1.9	3.0	1.0	7.0
Father's occupation when respondent was 14 (1-9)	4.2	2.5	4.0	1.0	9.0
Age	49.3	18.6	50.0	15.0	100.0
Gender: Female (0-1)	0.5	0.5	1.0	0.0	1.0
Tertiary education (0-1)	0.2	0.4	0.0	0.0	1.0
Location (1-3)	1.8	0.7	2.0	1.0	3.0
Interested in politics (1-3)	1.9	0.5	2.0	1.0	3.0
Conservation	4.3	0.8	4.3	1.0	6.0
Security	4.6	1.0	5.0	1.0	6.0
Conformity	4.0	1.1	4.0	1.0	6.0
Tradition	4.3	1.0	4.5	1.0	6.0
Self-transcendence	4.8	0.7	4.9	1.0	6.0
Benevolence	4.9	0.8	5.0	1.0	6.0
Universalism	4.7	0.8	5.0	1.0	6.0
Openness to change	4.1	0.9	4.2	1.0	6.0
Self-direction	4.6	1.0	4.5	1.0	6.0
Stimulation	3.6	1.2	3.5	1.0	6.0
Hedonism	4.0	1.2	4.0	1.0	6.0
Self-enhancement	3.5	1.0	3.5	1.0	6.0
Achievement	3.7	1.2	4.0	1.0	6.0
Power	3.3	1.1	3.5	1.0	6.0

Note: These are statistics for variables before possible transformations for the estimations shown in Table 3. The original ESS categories of human values, occupational class, and father's occupation have been inverted, so higher values represent more attitude or higher sophistication. To simplify later presentation of results in Table 3, *Low income* and *Low class* are equally represented by letter L.

Personal socio-economic position is proxied by self-reported household income, transformed by ESS organization to relative income in each country. ESS includes an indicator of aggregate income for all household members, measured with respect to the distribution of deciles in each

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[11] The ICC is the quotient between variance among countries and total variance in the data.
[12] Macro-regional dummies try to capture possible historical similarities of political systems, without a strong removal of contextual variance due to the inclusion of country fixed effects.

country. My initial *Income* variable is a five-level transformation of the original ten-level variable, with the following categories: Low, Low-Medium, Medium, Medium-High, and High. For analysis of interaction effects, I also use a simpler indicator, *Low income*, which takes the value 1 if *Income* is in the lowest 40% of the distribution, and 0 otherwise. As a robustness analysis , I will also use occupational categories (Oesch and Rennwald 2018). *Low class* is defined as unskilled and skilled workers in Oesch's occupations.[13]

Schwartz designed the 21 ESS survey statement to evaluate human values. Respondents use a scale of 1 to 6. I have inverted this scale so that 1 means "Not like me at all" and 6 "Very much like me." The ten basic human values are defined as arithmetic means of those 21 survey items (see Table 1). The four aggregated human values are arithmetic values of the corresponding ten basic values. The effective weight of an item in a dimension thus depends only on the average scores chosen by each citizen for those questions of the survey.[14]

The analysis includes controls for other socio-demographic factors (Roets et al. (2014), Arikan and Ben-Nun Bloom (2015), Laméris et al. (2018), among others): *Age*, *Gender* (1 Female), *Tertiary education*, *Location* (1 Village/Farm, 2 Suburbs/Town, 3 Big city), and *Interest in politics* (1 Not at all, 2 Quite/hardly, 3 Very interested). Table 2 presents the descriptive statistics.

3.2. Methodology

To evaluate the role of income using cross-sectional data, I consider some possible sources of endogeneity. First, people with different incomes might develop different human values, and vice versa, affecting the identification of ideological biases. To reduce this risk, I analyse the impact of human values after eliminating the correlation of these values with income. Second, individuals' income might be related to behaviour or attitudes caused by their political orientation, through different social or personal mechanisms. To control for intra-life causality from ideology to income, I use parental information to predict income and then use these predictions to evaluate the effects of income and human values on ideology. This paper does not fully

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[13] In the five-level classification, the other three categories are 'Small business owners', 'Lower-grade service class', and 'Higher-grade service class'. See https://people.unil.ch/danieloesch/scripts/.

[14] ESS documentation recommends calculating each value relative to the sum of the scores for all values, which is controversial (Bruna 2022).

address the potential heritability of income, political orientation, and ideology. In this cross-sectional research, the instrumentation of social status using parental information (Jæger 2008; Kourtellos and Petrou 2022) enables exploration of ideology formation as a balance of selfishness and other human motivations.

After considering some socio-demographic variables, I estimate four models of self-reported political orientation on the left-right scale, as follows:

- Model 1 studies the role of income, measured using dummy variables for different categories, and the role of the four-dimension variables of human values. This estimation is the first attempt to study Hypotheses H1, H2, and H3.

- Model 2 uses the same dummy variables for income but disaggregates human values into the ten basic ones enabling study of the internal consistency of the results for the four-level aggregated values (Hypotheses H1 to H5).

- Model 3 continues to test Hypotheses H1 to H3 and prepares for the subsequent presentation of results for Model 4. The income dummies are replaced by a categorical variable for all the income levels, *Income*, which is useful for comparing the results with similar variables for human values, and with the results for Model 4. Additionally, to reduce endogeneity and multicollinearity, the effects of human values are measured as the effects of residuals from regressions of human values on *Income*. Model 3 also includes dummies for European macro-regions.

- Model 4 presents this paper's main results. Human values are considered as in Model 3 and interacted with the Central/Eastern (CE) macroregional European dummy, to study Hypothesis H4. Income is simplified to *Low income* or *Low class*. To study Hypothesis H5, the latter variables are made to interact with human values.

Models 1 to 4 are estimated by Ordinary Least Squares (OLS), which enables us to use several econometric procedures in R software. The literature on similar categorical dependent variables shows that the main qualitative results of OLS are not different from those of multinomial logit or probit models (Bruna and Rungo 2020). To confirm this, Model 4 is also estimated by Ordered Probit (OP), although the dependent variable is simplified to three levels, to reduce the number of rows for each intercept in Table 3 below. The main results of the paper are those

for the Two-Stage Least Squares (2SLS) estimation of Model 4, when controlling for possible endogeneity of income, which is also compared to results for occupational class.[15]

For Model 4, *Low income* (L) is instrumented by father's education and *Low class* (L) by father's occupation. For the first stage of 2SLS, I estimate probit models of the L variables (Xu 2021), in which income is replaced with data about respondents' father. Predictions of those models in the 0-1 range are adjusted to binary values 0 or 1, and the latter variables are used as instruments of L in Model 4.

To reduce multicollinearity, the following variables were standardized by country: human values, *Income* in Model 3, and parental data in 2SLS estimations. Variables *Age* and *Age²* are globally standardized. Heteroscedasticity-consistent standard errors clustered by country are used for OLS and 2SLS estimations shown in Table 3 below. A negative estimate of an explanatory variable should be interpreted as a leftist political orientation, predicting low values in the scale from left to right, or lower than the reference category.

4. Results

4.1. Socio-demographic and regional controls

The general results in Table 3 are very similar for the individual-level control variables, although the 2SLS estimations show some noteworthy differences (in somewhat smaller samples). *Age* shows a nonlinear rightist orientation: the rightist effect of *Age* increases with age. *Age* estimate is very strong when *Low income* is instrumented by father's education (Column 6) but is not significant when *Low class* is instrumented by father's occupation (Column 7). Similarly, *Gender: Female* shows a consistent leftist orientation, which vanishes in the 2SLS estimations. Having *Tertiary education* is a left-wing factor, very strong in the 2SLS estimation of Column (6), although not significant for occupational class (Column 7). Urban *Location* (reference category is 'Village/Farm') tends to have a leftist orientation, but it becomes less

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[15] The coefficient of determination (R^2) is naturally low in OLS estimations for a dependent variable with integer values. Additionally, R^2 is meaningless for 2SLS. For the OP estimation, the confusion matrix will show the percentage of correct predictions for the three-level dependent variable.

important when using occupational classes (Column 7). Considering channels of inherited status or family influence, thus, may alter the estimated effects of some socio-demographic factors on ideology. This is matter for further research.

Table 3. OLS, OP, and 2SLS estimations.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Model 1	Model 2	Model 3	Model 4			
	OLS				OP	2SLS	
Intercept / Left|Centre Centre|Right	6.57 ***	6.53 ***	6.08 ***	6.15 ***	-0.86 *** 0.66 ***	6.82 ***	6.95 ***
Age	0.10 ***	0.11 ***	0.10 ***	0.08 *	0.05 ***	0.24 ***	0.05
Age squared	0.07 ***	0.07 ***	0.08 ***	0.05 ***	0.02 ***	0.13 ***	0.00
Gender: Female	-0.11 **	-0.13 **	-0.11 **	-0.12 **	-0.06 ***	-0.04	-0.10
Tertiary education	-0.12 ***	-0.08 **	-0.14 ***	-0.06 *	-0.03	-0.35 ***	-0.59
Location: Suburbs/Town	-0.16 ***	-0.14 ***	-0.18 ***	-0.18 ***	-0.09 ***	-0.18 ***	-0.14
Location: Big city	-0.29 ***	-0.26 ***	-0.37 ***	-0.37 ***	-0.18 ***	-0.37 ***	-0.28 *
Interested in politics: Quite/hardly	0.08 *	0.10 **	0.05	0.07 **	0.03	-0.11 **	-0.01
Interested in politics: Very	-0.23 **	-0.19 **	-0.21 **	-0.15 *	-0.09 **	-0.40 ***	-0.29 **
Income: Low	-0.65 ***	-0.62 ***					
Income: Low-Medium	-0.46 ***	-0.44 ***					
Income: Medium	-0.45 ***	-0.44 ***					
Income: Medium-High	-0.24 ***	-0.24 ***					
Income (1-10)			0.20 ***				
Income / Class: low (L) (0-1)				-0.21 ***	-0.12 ***	-1.59 ***	-1.37
Conservation	0.35 ***		0.35 ***	0.43 ***	0.23 ***	0.43 ***	0.68 ***
Security		0.14 ***					
Conformity		0.09 ***					
Tradition		0.21 ***					
Self-transcendence	-0.35 ***		-0.35 ***	-0.52 ***	-0.27 ***	-0.65 ***	-0.77 ***
Benevolence		0.02					
Universalism		-0.42 ***					
Openness to change	0.10 ***		0.10 ***	0.12 ***	0.07 ***	0.16 **	0.14 *
Self-direction		0.07 ***					
Stimulation		0.05 ***					
Hedonism		0.02					
Self-enhancement	0.11 ***		0.11 ***	0.11 **	0.07 ***	0.32 ***	0.21 ***
Achievement		-0.02					
Power		0.14 ***					
L × Conservation				-0.04 *	-0.04 *	-0.16	-0.51 **
L × Self-transcendence				0.16 **	0.08 **	0.52 ***	0.67 ***
L × Openness to change				-0.06	-0.04 *	0.02	-0.10
L × Self-enhancement				-0.03	-0.03	-0.40 ***	-0.28 *
EU region: Northern countries			0.43 ***	0.41 ***	0.23 ***	0.38 **	0.41 ***
EU region: Southern countries			-0.28 *	-0.26	-0.13 ***	-0.18	-0.24 ***
EU region: Central/Eastern (CE)			0.39 ***	0.39 ***	0.20 ***	0.40	0.48 ***
CE × Conservation				-0.34 ***	-0.18 ***	-0.33 ***	-0.28 ***
CE × Self-transcendence				0.39 ***	0.21 ***	0.35 ***	0.30 ***
CE × Openness to change				0.03	0.02	-0.00	0.04
CE × Self-enhancement				-0.05	-0.03	-0.11	-0.08 **
Observations	30,533	30,440	30,533	30,533	30,533	28,126	26,497
AIC	132,609	131,877	132,194	132,183	59,959	124,028	116,299
F / Wald test	91.22	82.50	118.52	80.19		71.84	72.02
Residual standard error	2.12	2.11	2.11	2.11		2.19	2.17

*p<0.05 **p<0.01 ***p<0.001

Note: The dependent variable is categorical between 1 and 11 in the OLS and 2SLS estimations and between 1 and 3 in the OP estimation. Nagelkerke's R^2 for this OP estimation is 0.38 and the confusion matrix implies that 54% of the observations are properly classified. Only 0.17% of the observations are severely misclassified by the OP model—that is, as Left being Right or Right being Left. For both 2SLS estimations, the p-values for weak instruments tests for L and for the interactions of L with human values are zero, as are those for the Wu-Hausman tests. The F statistic refers to the OLS models, and the Wald test to the 2SLS models.

For *Interested in politics*, the reference category is 'Not at all'. Non-reported tests (available upon request) show that political sophistication increases the chances of *Left* or *Right* orientations rather than *Centre*, while low sophistication points to centred positions. This asymmetry may explain the variability of results in Table 3 for *Interested in politics: Quite/hardly*.

For *EU region*, the reference category is 'Western countries'. Comparing to this group, in Columns (3) to (7) of Table 3, citizens of 'Northern countries' and 'Central/Eastern countries' (CE) lean to the right while those of Southern countries lean to the left.

4.2. Income

Models 1 and 2 in Table 3 show the effects of *Income* categories when the reference is 'High' income. The negative estimates of all other categories show a more leftist orientation than the reference group: the lower the relative national income, the higher the leftist orientation. Additionally, when compared to all the other dummy variables, the effect sizes of *Income* dummies are very high. These results confirm traditional explanations of ideology and thus Hypothesis H1.

Model 3 includes the regional dummies, and *Income* is considered as the country-standardized ten-level variable. Its positive estimate confirms the rightist effect on ideology, as suggested by Hypothesis H1. It should be noted that the size of the estimate (0.20) is lower than the size of two of the estimates of human values (0.35). This preliminary result will be qualified below.

For Model (4), Columns (4) to (6) present the results when *Income* is replaced with *Low income* (L), a dummy variable for the lower 40% of relative household income by country. Columns (4) and (5) show this variable's leftist effect, but the size of these estimates is lower than those for living in a big city or for some human values. The results for the 2SLS estimation change this story, however. In Column (6), individuals with *Low income* appear to have a very strong left-wing inclination (-1.59). *Low income* becomes the main factor affecting political orientation. The robustness analysis in Column (7) for occupational categories confirms those results. *Low class*' (L) p-value is 0.084, significant at 10%. The estimate of *Low class* is the largest in Column (7).

4.3. Human values

Column (2), displaying the ten basic human values, helps us to understand the sign and magnitudes of the estimates for the four higher-order values. In Columns (3) to (7), human values are

replaced by the regression residuals of human values for income. The estimates of human values in Columns (1) and (3) are identical because the correlations of income with human values are very low.

Supporting Hypothesis H2, *social* human values (*Conservation* and *Self-transcendence*) have a stronger impact in predicting political orientation than do personal values (*Openness to change* and *Self-enhancement*). This result is confirmed by the basic values in Column (2): the highest estimates are for *Universalism* (-0.42), which belongs to *Self-transcendence*, and *Tradition* (0.21), which belongs to *Conservation*.

The results also support Hypothesis H3. *Conservation* and *Self-enhancement* predict a right-wing orientation. Column (2) shows that the three basic values included in *Conservation* have significant rightist estimates. *Power*, which is part of *Self-enhancement*, also shows a rightist orientation,[16] whereas *Universalism* (*Self-transcendence*) is a strongly leftist value.[17] Moreover, while previous expectations for *Openness to change* were unclear, *Self-direction* and *Stimulation* appear as basic values significantly oriented to the political right. As argued in Section 2.2, this result may confirm an individualist or materialistic interpretation of *Openness to change*.[18]

In Column (2), three basic social values—*Security*, *Tradition*, and *Universalism*—and one personal value, *Power*, have the highest impact on political orientation. The underlying motivations connect to two main underpinnings of political orientation (Feldman 2013), an economic dimension related to equality and competition (*Universalism* and *Power*) and a moral dimension related to risk and social order (*Security* and *Tradition*).

The extensive previous literature supporting Hypothesis H4 for CE countries is confirmed here. The interaction effect of human values and CE countries in Column (6) shows that the high rightist effect of *Conservation* (0.43) becomes much more moderate in CE countries (0.43-0.33=0.10). The high leftist effect of *Self-transcendence* (-0.65) also becomes much more moderate in these countries (-0.65+0.35=-0.30). *Conservation* and *Self-transcendence* maintain

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[16] Within *Self-enhancement*, the correlation between country standardized *Power* and *Achievement* is 0.52.
[17] For the basic values, the highest correlation (0.55) is between *Benevolence* and *Universalism*.
[18] For the four-dimension human values, the highest correlation is between *Openness to change* and *Self-enhancement* (0.50), indicating an individualist right-wing orientation of *Openness to change*. Within *Openness to change*, *Hedonism* has a correlation of 0.53 with *Stimulation.*

their general ideological propensity but produce lower political bias for the average individual in CE countries.

4.4. Interaction effects of Low income/class using instrumental variables

The goal of this paper is to study how individuals balance selfish preferences with their other general motivations. Column (6) shows the main results when *Low income* (L) is instrumented by father's education. Column (7) shows a robustness analysis for *Low* (occupational) *class* (L), instrumented by father's occupation.

Table 4. Summary of the interaction effects of human values for people with *Low income* in Column (6) of Table 3

	Self-expansion	Self-protection
Social	*Self-transcendence*: -0.65+0.52 = -0.13	*Conservation*: 0.43-0.16 = 0.27
Personal	*Openness to change*: 0.16	*Self-enhancement*: 0.32-0.40 = -0.08

Note: The numbers refer to the sum of statistically significant estimates of human values and interactions of human values with the dummy variable for individuals in households in the lower 40% of national income. The p-value for the interaction term *Conservation* is 0.052. The estimate of *Low income* is -1.59.

In Column (6), the left-wing estimate of *Low income* (-1.59) is very high. As summarized in Table 4, the interaction of this variable with human values helps us to understand the balance between different human motivations. Confirming Hypothesis H2, social human values generally have strong influence on ideology, but their impact is weaker for people with higher materialistic needs: *Conservation* and *Self-transcendence* become less important for poorer citizens' political orientation. Tables 3 and 4 also shows a reversal of sign for *Self-enhancement* (0.32-0.40=-0.08). In general, *Power* (preference for "money", "respect", in Table 1) is a rightist value. Once the strong leftist effect of *Low income* (-1.59) is controlled for, however, the selfish orientation of low-income individuals who score high on *Power* could motivate them to prefer leftist redistributive policies. Altogether, Hypothesis H5 is confirmed: A low income moderates the ideological effects of social human values and the personal value of *Self-enhancement*.[19] For average citizens with *Low income*, the interaction effect with *Openness to*

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[19] These results are consistent with those of Goren et al. (2022), showing that human values play a smaller role in explaining ideology for individuals with less education.

change is not statistically significant, probably because of the heterogeneous effects of individualism and readiness to change, discussed in Section 2.2.

The results are confirmed by the robustness analysis using occupational classes (Column 7). The strong leftist effect of *Low class* (-1.37 estimate with p-value of 0.084) combines with moderate effects of social human values for low-class individuals, *Conservation* (0.68-0.51=0.17) and *Self-transcendence* (-0.77+0.67=-0.10). Again, *Self-enhancement* shows a reversal of sign, becoming slightly leftist (0.21-0.28=-0.07). For people in lower occupational classes, *Openness to change* continues to be a rightist value (0.14).

5. Discussion and conclusions

Classical selfishness explanations of political orientation predict that individuals with low social status will have a left-wing ideology. Evidence reveals, however, a substantial proportion of the citizens voting against what is supposed to be their selfish interest. This paper reconciles these classical approaches with recent contributions in social psychology. Personal preferences also depend on inner motivational needs, such as fear or threat. Human values, defined as hierarchical motivational goals, encapsulate a set of criteria to define a good society, but also summarize individuals' psychological attributes with potential political biases.

Using the ESS, I show that income has very strong and consistent effects in defining individuals' left-right political orientation. Preferences on societal issues, synthesized in *social* human values, have also a strong rightist (*Conservation*) or leftist (*Self-transcendence*) orientation, although their effects are lower in Central and Eastern countries. Schwartz's empirical definition of *personal* values (*Openness to change* and *Self-enhancement*) also condition a right-wing orientation, probably due to their individualist or materialistic focus.

The main results show that people in the lower income strata of each country give lower priority to some of the general issues underlying the definition of social human values, for both rightist and leftist values. Additionally, the right-wing oriented value of *Self-enhancement* takes a slightly left-wing orientation for low-income individuals, who would be prioritizing redistribution. These results help to explain the existence of citizens with an apparently non-selfish political orientation.

My research has several limitations. The empirical approach only explores some potential channels of causality. Additional work should be done on the combined effects of income and

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human values for people in several socio-demographic groups. The possible role of contextual factors should be addressed for different samples. Dynamic issues—both contextual and life-time changes in income, human values, and ideology—should be studied carefully in further research. Disentangling contemporary and inherited issues is a major challenge in this field. A strategy of interacting motivations might also be applied to explain the recent tide of political populism in Europe.

The results reported in this paper may be useful for understanding voters' profiles and partisan communication messages, as well as governments' policies on specific issues, such as redistribution, climate change, immigration, or culture.

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