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# Mechanisms of the Effect of Individual Education on Pro-European Dispositions

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## Abstract

A burgeoning empirical literature on attitudes towards Europe shows that highly educated individuals are more likely to hold pro-European dispositions than non-highly educated individuals. The literature provides structural and cultural accounts for this relationship. The structural account highlights that formal education contributes to earning higher incomes and attaining an upper-class occupation, which are conducive to pro-European dispositions. The cultural account instead highlights that formal education instils universalist and non-traditionalist values in individuals, which are conducive to pro-European dispositions. This is the first article to assess the relative predictive power of these two approaches. Using structural equation models, Rounds 8–10 of the European Social Survey and three indicators of pro-European dispositions, this article examines whether socio-economic location measured by income and upper-class occupation or commitment to human values measured by universalism and traditionalism mediates this association. All in all, the structural approach receives stronger support than the cultural one.

Keywords: attitudes; education; Europeanisation; mechanisms

### Introduction

The positive association between education and pro-European attitudes amongst citizens is one of the most consistent findings in European integration studies. Whether over time (Hakhverdian et al., 2013) or across EU countries (Lubbers and Scheppers, 2010), citizens with a high educational level are systematically and significantly more likely to hold pro-European dispositions. This association between education and EU support, moreover, holds for all types of EU-related attitudes, ranging from support for one's own country's EU membership (Hakhverdian et al., 2013), attitudes towards the allocation of authority at the EU level (Lubbers and Scheppers, 2010) and understanding of the EU (Teney, 2016) to European identification (Fernández and Eigmüller, 2018). The outcome of the Brexit referendum also provides further real-life evidence beyond these survey research studies: a high level of education together with a young age were the main socio-demographic determinants of the remain vote in the Brexit referendum (Hobolt, 2016).

Seeking to shed additional light on the processes behind this association, a few recent studies focus on the mechanisms and scope conditions of this education effect. Fernández and Eigmüller (2018) highlight the role of the average national level of educational attainment in explaining cross-national variation in the educational gap in European identification. Also, two studies assess the robustness of the education effect on EU attitudes. Leveraging a quasi-natural experiment that involves the introduction of

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compulsory schooling reforms (Kunst et al., 2020) in one case and using a panel design for Switzerland (Kuhn et al., 2021) in the other, these two studies suggest that students do not develop stronger pro-European attitudes as they move through the school system and that more years of schooling do not translate into more pro-European attitudes. They therefore conclude that the educational system per se does not explain the effect of people's educational attainment (Kuhn et al., 2021; Kunst et al., 2020). We are interested, however, in the robust negative cross-sectional association between individual educational, attainment and Euroscepticism that these and other studies report. Kuhn et al. (2021) for instance show that parental socialisation cannot entirely explain why highly educated citizens hold more pro-European attitudes. The observed covariation between individual education and pro-European dispositions is therefore robust, and the mediating mechanisms remain unknown.

Whilst we acknowledge that support towards the EU and identification as a European are different and multidimensional concepts, in practice, it is difficult, if not impossible, to disentangle them at the empirical level, mainly because people do not quite separate the two (see Diez Medrano, 2003, 2010). We will therefore analyse both dimensions and refer to them with the broader concept of pro-European dispositions. This article contributes to filling an important gap in the literature on European integration by addressing the following questions: what are the social processes that explain covariation between individual education and pro-European dispositions? More specifically, what are the micro-mechanisms that explain the positive relationship between education and pro-European dispositions?

To answer these questions, this article draws on two core principles in the literature on attitudes towards Europe (Recchi, 2014), which, indeed, provide two very different - but complementary - accounts for the causes of the link between education and pro-European dispositions. According to the structural approach, embeddedness in social structures and relations - measured with relative income or social class location constitutes a critical mediating factor (Fligstein, 2008; Gabel, 1998; Gabel and Palmer, 1995). An alternative cultural approach, instead, stresses the role of exposure to discourse and symbols (Recchi, 2014), leading to the development of specific values, in particular, universalist and conservation/traditionalist values (Dennison et al., 2021; Kunst et al., 2020; Meyer, 2010; Pichler, 2009). Our article tests these core propositions. It specifically assesses the relative importance of two structural factors (income and class status) and two values (universalism and traditionalism) in mediating the effect of education on three measures of pro-European dispositions: attachment to Europe, support for further unification and a remain vote in a hypothetical referendum. In the empirical analysis, we estimate structural equation models with 2016-2022 data for 23 EU member states included in Rounds 8-10 of the European Social Survey (ESS).

Our analysis yields three main findings. First, in line with previous research, in the EU as a whole, individual education is positively related to pro-European dispositions. Second and most importantly, having an upper-class occupation and, especially, ei high income mediates a much larger proportion of the effect of education on pro-European dispositions than the individual-level values of universalism and traditionalism. As a result, the structural approach provides a better account for the link between education and

dispositions towards Europe than the cultural one. Third, and also importantly, most of the effect of education on pro-European dispositions remains unexplained by income, class status and commitment to universalist and traditionalist values.

## I. Analytical Approaches to Pro-European Dispositions

Two analytical perspectives in the literature on pro-European dispositions are relevant for the study of the effect of education on European identification: the *structural* and *cultural* approaches (see Recchi, 2014, for an excellent theoretical overview of these two approaches). The former approach emphasises the role of individual embeddedness in social structure and relations (measured with the socio-economic status), whereas the latter emphasises the role of values developed through exposure to discourse and symbols, with a focus on universalism and traditionalism (Schwartz, 1992).

# The Structural Approach

The *structural approach* focuses on the position in the social structure as a mediator of the effect of education on pro-European dispositions. This work is mostly premised on the primary motivating role of self-interest, personal utility and social relations and offers three different general arguments. One argument states that people's location in the stratification system determines the extent to which they benefit from the European single market. Then, how much individuals benefit from the European single market determines the extent to which they support European integration and identify as Europeans (Anderson and Reichert, 1995; Fligstein, 2008; Gabel, 1998; Gabel and Palmer, 1995). Authors in this tradition argue that the European single market benefits more highly educated individuals than individuals with less education in terms of employment and income. This is because, they claim, the expansion of the labour market disproportionately increases the international opportunities for workers whose human capital is of relatively high value such as professionals or executives (Gabel, 1998).

Another line of structural argumentation highlights the role of individual economic resources. Authors using this line of argument (Diez Medrano, 2010; Fligstein, 2008; Mau, 2010) stress that because highly educated individuals earn more than less educated ones, they can better afford to travel across Europe. They are also more likely to have jobs that provide incentives and opportunities to go abroad and interact with people from other European countries. In turn, the authors above speculate that wealthier individuals and those in jobs that provide incentives and opportunities to travel across Europe and meet with different European nationals are more aware of the rights and advantages of free movement and residence within the EU than other segments of the population. Because of this greater awareness, they thus develop a more positive view of the EU, which eventually translates into more pro-European dispositions.

In addition to stressing self-interest and utility, the literature based on the structural approach stresses the influence of greater awareness of and familiarity with Europe (Diez Medrano, 2009; Díez Medrano, 2019a, 2019b; López Berengueres, 2022; Mau, 2010; Recchi and Favell, 2009). Advanced levels of education, affluence and high occupational status make people with those characteristics (i) more knowledgeable about Europe and (ii) more embedded in Europe wide professional networks, which in turn promote

increased affinity to European things and, eventually, stronger pro-European dispositions. Authors in this tradition, drawing inspiration from Deutsch's (1953) work, emphasise that greater opportunities for travelling abroad and meeting people in other European countries facilitate more awareness of the fact that they are European and affinity to European matters, which then translates into a more favourable disposition towards Europe (e.g., Deutschmann et al., 2018; Kuhn, 2011; Teney and Deutschmann, 2018).

To sum up, the *structural approach* to the explanation of pro-European attitudes stresses that the positive association between education and pro-European dispositions occurs mainly because more educated citizens earn more and reach higher class positions. These structural positions, in turn, provide more incentives and opportunities to hold pro-European dispositions than is the case for low-income and low and lower middle class individuals.

#### The Cultural Approach

The *cultural approach* has, instead, emphasised the roles of values and personality traits in developing pro-European dispositions (Kunst et al., 2020; Meyer, 2010; Pichler, 2009). Schwartz (1992; Schwartz et al., 1997) identifies a universal human value scheme composed of 10 basic motivational value types, of which universalism and traditionalism are the most relevant for dispositions towards Europe. According to Schwartz, universalism can be defined as understanding, appreciation, tolerance and protection for the welfare of all people and for nature. Following this conceptualisation, research in the cultural tradition argues that *universalism* encourages understanding, tolerance and appreciation of cultural diversity, which makes people more open to supranational communities (Kunst et al., 2020; Pichler, 2009). For these authors, moreover, universalism mediates the effect of education on pro-European dispositions because, they claim, these values are consistently instilled in formal education institutions (for arguments and evidence supporting this view, see Clifford-Vaughan, 1963; Gong, 2022; Meyer, 2010). The longer the individuals spend in the educational system, the longer and more profoundly they are exposed to universalist values, and, therefore, the more likely they are to hold pro-European dispositions.

In recent years, social scientists within this cultural tradition have also examined the role of *traditionalism*, in explaining European identification and, indirectly, pro-European dispositions (Dennison et al., 2021). In a recent analysis, in particular, Dennison et al. (2021) use ESS data to examine the impact of *universalism* and *conservation* (which, in Schwartz's universal value scheme, encompasses *traditionalism*) on EU support and on European identification. They find that *universalism* has a statistically significant positive effect on European identification, but the direct effect of *conservation* on European identification is not statistically significant. None of the two values have a significant direct effect on a hypothetical remain vote.

There are good reasons, however, to expect that *traditionalism* – one of the three basic values composing the higher order dimension of *conservation* in Schwartz's universal value scheme – should impact both EU support and European identification. Schwartz defines *traditionalism* as respect, commitment and acceptance of the customs and ideas that traditional culture or religion provide the self. Since the 19th century, three core taken-for-granted ideas anchored in Western culture have been that (i) political

organisation is articulated around nation-states, (ii) sovereignty rests in the nation and (iii) nation-states monopolise specific functions (e.g., tax, internal and external security and welfare) aided by specific instruments (e.g., national currency, national bureaucracy and national security forces) (see Mann, 1993; Meyer, 2010). European integration, through the creation of supranational political institutions and bureaucracies that (i) are endowed with competences previously monopolised by the state, (ii) take and enforce decisions by the qualified majority and (iii) replace or complement national instruments with European ones (e.g., the Euro), contradicts in many ways these received, taken-for-granted, ideas. One would thus expect that individuals who attach great value to tradition would display weaker pro-European dispositions than those who prioritise other values.

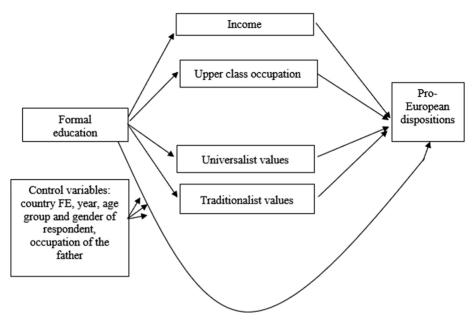
Although the scholarship does not include studies theorising how *traditionalism* mediates the impact of education on pro-European dispositions, since the 19th century, the educational systems of European countries have promoted rational, critical (rather than traditional) thinking as the main guide to behaviour (Clifford-Vaughan, 1963). The literature also consistently shows that the more educated individuals are, the less likely they are to display traditionalist values (Inglehart, 1990, 1997).

In sum, the literature has emphasised the role of socio-economic variables and values as intervening in the relationship between education and pro-European dispositions. Their relative importance in accounting for the educational effect on pro-European dispositions in contemporary Europe, nevertheless, remains unexplored. This article will fill this gap with the first systematic exploration of the relative role of these mechanisms.

# **II.** Hypotheses

Drawing on the literature discussed above, this section formulates four hypotheses concerning the roles of structural socio-economic variables and of values as mediators of the effect of education on European identification. The *structural approach* emphasises the roles of income and class status. The *cultural approach*, instead, emphasises the roles of universalist and traditionalist values. Figure 1 depicts our theoretical model including the four mediators and their expected association with formal education and with pro-European dispositions.

We first address the role of socio-economic factors in mediating the effect of education on pro-European dispositions. The first factor that we consider is individual income. Needless to say, formal education is a strong determinant of income. Also, a high income has been proven a consistent predictor of pro-EU dispositions (Carey, 2002; McLaren, 2002). According to the structural approach, the single market rewards highly educated individuals and penalises less educated ones in terms of income; high earners then attribute part of their success to the single market, and because of this, they hold more pro-European dispositions than do low earners (Gabel and Palmer, 1995). Furthermore, high earners are exposed to more positive information about European integration and are more transnational in their practices and interactions than are other segments in the population, which also leads them to appreciate more the advantages of Europe's free movement rights. Consequently, they are more pro-European in general (Fligstein, 2008; Inglehart, 1970). Besides these interest-based arguments, other authors draw on Deutsch (1953) to predict that because of their greater opportunities to travel abroad and meet nationals from all over Europe, high earners develop more affinity to Europe Figure 1: Hypothesised Diagram With the Relationship Between Formal Education and Pro-European Dispositions Mediated by Income, Upper-class Occupation, Universalist Values and Traditionalist Values. ESS, European Social Survey; FE, fixed effect.



than do low earners, which then translates into greater pro-European dispositions (Delhey et al., 2015; Diez Medrano, 2009; Diez Medrano, 2019a, 2019b; Mau, 2010).

*Hypothesis* 1: Highly educated individuals hold more pro-European dispositions than do less educated individuals, because they earn higher incomes.

For scholars following the *structural approach*, class status – that is, one's position in the occupational hierarchy – also mediates the effect of education on pro-European dispositions. Following Oesch (2006), we categorise workers into two broad social classes: first, the upper and upper-middle class including large employers, self-employed and employed professionals, and managers (e.g., entrepreneurs, lawyers, administrators and teachers) and, second, the lower and lower middle class including small-business owners, production workers, office clerks and service workers (e.g., shop owners, mechanisms, secretaries, waiters and shop assistants).

Highly educated individuals are more likely to be employed in upper- or upper-middleclass jobs; those employed in these jobs then infer that the European single market partly contributes to their success by expanding their opportunities (Gabel, 1998). For professional reasons, individuals in upper- and upper-middle-class jobs are also more likely to benefit from freedom-of-movement rights than do individuals in other class positions. As a result, they are more likely to positively evaluate these rights and to conclude that they benefit from them, which then increases the likelihood of them holding pro-European dispositions (Delhey et al., 2015). Finally, individuals in upper- and upper-middle-class jobs are more often required to travel abroad and have a greater opportunity to meet people from other countries than are those in lower class positions. This helps them develop greater awareness of being European and increased affinity for European-related matters, making it more likely for them to hold pro-European dispositions. For all these reasons, we posit that the higher the class status is, the more pro-European the dispositions.

*Hypothesis* 2: Highly educated individuals hold more pro-European dispositions than do less educated individuals, because they are more likely to be employed in upper- and upper-middle-class positions.

The *cultural approach* leads to additional hypotheses about the factors that mediate the effect of education on favourable dispositions towards Europe. It suggests that universalist values mediate the impact of education on pro-European dispositions (Dennison et al., 2021; Kunst et al., 2020; Pichler, 2009). This is mainly because the educational system instils these values on people and because universalist values make people more open to feeling part of a community formed by various nationalities.

*Hypothesis* 3: Highly educated individuals hold more pro-European dispositions, partly because they are more likely to have universalist values.

The *cultural approach* also provides reasons for why traditionalism likely mediates the effect of education on pro-European dispositions. The longer the individuals have been in the educational system, the more they have been trained to rationally and critically approach problems and to become open to change when new problems arise for which solutions that depart from tradition are called for. They are thus likely to value tradition less than are those who left the educational system earlier. In turn, less traditional individuals are less likely to blindly stick to an exclusive national identification and more likely to identify as Europeans and hold pro-EU dispositions than are more traditional ones.

*Hypothesis* 4: Highly educated individuals hold more pro-European dispositions than do less educated ones, because they are less likely to have traditionalist values.

#### III. Data and Analytical Strategy

#### Data

Our data source for this article is the ESS. We utilise this source because it is the only cross-national survey with valid indicators for all dimensions in our theoretical model: individual education, economic status, human values and dispositions towards European integration. Furthermore, the ESS includes three question items that allow us to tap on the multidimensional character of pro-European dispositions. The three items concern (i) attachment to Europe, (ii) support for further European unification and (iii) a remain vote in a hypothetical referendum to stay in the EU. These items capture two axes along which these pro-European dispositions can be classified: 'mode of support' (specific vs. diffuse) and 'object of support' (the EU regime or the EU as a community of Europeans) (Boomgaarden et al., 2011). Whilst none of the three items is likely to unambiguously capture pro-European dispositions (e.g., voting 'remain' may simply reflect uncertainty about life outside the EU), consistency in the statistical findings obtained in the analysis below may be treated as indicative of the relative impact of class and values in mediating the effect of education.

The question on *attachment to Europe* asks 'how emotionally attached' is the respondent to Europe, and its range goes from 0 (*not at all emotionally attached*) to 10 (*very emotionally attached*). Following the classification of Boomgaarden et al. (2011), it captures diffuse support towards the EU as a community of Europeans. The question on support for *further European unification* reads: 'Now thinking about the European Union, some say European unification should go further. Others say it has already gone too far. Using this card, what number on the scale best describes your position?' The answer scale ranges from 0 (*unification has already gone too far*) to 10 (*unification should go further*). The question on a *remain vote* in a hypothetical referendum asks: 'If there were to be a new referendum tomorrow, would you vote for the [COUNTRY] to remain a member of the European Union' (1) and 'leave the European Union' (0). The second and third items above capture concrete support for the EU as a policy regime. All three items have already been proven to have construct and criterion validity (Dennison et al., 2020, 2021; Gherghina and Tap, 2023; Hatos, 2013).

In all analyses, we pool ESS Rounds 8-10 – with fieldwork between August 2016 and May 2022 – as the three rounds include these three outcomes and as pooling reduces sensitivity to temporal conditions. To minimise the risk that mediators – income, social class and values – drive individual educational decisions and to bracket out the influence of socialisation during schooling, we analyse only those respondents who finished their formal education.<sup>1</sup> Interpretation of the questions regarding European integration may, moreover, differ in EU and non-EU member states. We hence exclude all non-EU member states in all three rounds plus the UK<sup>2</sup> and restrict the analysis to all included 23 EU member states.<sup>3</sup>

In the analysis, we consider four substantive dimensions predicting respondents' European dispositions: respondent's education, individual income, class status, and human values. The education variable has critical relevance in the following section. For the main models, we utilise the variable *years of education*, which is fully continuous and has shown robust association to EU-related attitudes (e.g., Fernández and Eigmüller, 2018; Hakhverdian et al., 2013; Teney et al., 2014). Use of the International Standard Classification of Education (ISCED) level instead would have required us to rely on the (strong) assumption that changes across categories are equally meaningful. Sensitivity analyses shown below with the *ISCED level*, however, display equivalent results (Table S3).

We operationalise the socio-economic and cultural mechanisms through the variables *equivalised income*, *upper-class occupation*, *universalist values* and *traditionalist values*.

<sup>&</sup>lt;sup>1</sup>In practical terms, this involves excluding respondents for whom studying is the main activity.

<sup>&</sup>lt;sup>2</sup>These comprise Iceland, Israel, North Macedonia, Norway, Russia, Switzerland and the UK.

<sup>&</sup>lt;sup>3</sup>These comprise Austria, Belgium, Bulgaria, Croatia, Cyprus, Czechia, Germany, Denmark, Spain, Finland, France, Greece, Hungary, Ireland, Italy, Lithuania, Latvia, Netherlands, Poland, Portugal, Sweden, Slovenia and Slovakia. Estonia is excluded from the analysis due to missing information on one of the three outcomes.

*Equivalised income* represents the midpoint of the absolute values in each of the 10 income brackets utilised in the country questionnaire in euros. That value is then divided by the square root of the household size (OECD, 2013). To capture the role of social class understood as large occupational groups, we draw on Oesch's (2006) class schema, which differentiates respondents by the work logic of occupations (horizontal dimension) and skill marketability and authority (vertical dimension). Following the structural approach discussed above, we focus on the vertical dimension, which is captured through the variable *upper-class occupation*. Measured as a dichotomous variable, it distinguishes four social classes (large employers/self-employed professionals, technical professionals, managers and socio-cultural professionals) from the rest (small-business owners, productive workers, office clerks and service workers) (for a similar approach, see Ramaekers et al., 2023). Sensitivity analyses shown below with the international socio-economic index (*ISEI*) display equivalent results (Table S7).

In Section II, we discussed two human values included in Schwartz's (2012) typology, which could mediate the education–pro-European disposition link: universalism and traditionalism. *Universalist values* are captured through questionnaire items on the relative importance given to (i) equality of opportunity, (ii) listening to others and (iii) environmental concerns. *Traditionalist values* are captured through items on the relative importance given to (i) tradition and (ii) being humble and modest.<sup>4</sup> Schwartz (2012) stresses that it is critical to determine the motivational structure of respondents relationally in terms of a priority over alternative values. For the universalism and non-traditional value indexes, we therefore first calculate the average value of those items and then subtract from those the mean for all 21 items in the Schwartz scale.

To reduce unobserved heterogeneity, all the models control for the gender and age of respondents, which are related to pro-European dispositions (e.g., Fernández and Eigmüller, 2018; Fligstein, 2008; Hanquinet and Savage, 2018). The models also control for the occupation of the father when the survey respondent was 14, which may have an effect on European dispositions, economic status and values independently from the respondent's current characteristics. Despite the limitations of the 'dominance principle' (Thaning and Hällsten, 2020), we do not control for the occupation of the mother because that information is missing for 41% of respondents.<sup>5</sup> All continuous variables have been rescaled (0-1) within the country round to facilitate the interpretation of coefficients. The supporting information provides details on the definitions and the operationalisation of all variables. Table S1 provides descriptive statistics for all variables and Table S2 a correlation matrix.

#### Analytical Strategy

In the empirical analysis, we leverage structural equation modelling (SEM) – a family of statistical techniques exploiting the variation and covariation of a range of observed and latent variables (Hoyle, 2015; Kline, 2015). SEM is the most appropriate set of

<sup>5</sup>ESS microdata files do not include the ISCO code of the father's occupation. Hence, it is not possible to construct and test the role of the ISEI of the father.

<sup>&</sup>lt;sup>4</sup>In selecting an index for *traditional values*, we deviate from Dennison et al. (2021) who relied on the broader, higher ordered dimension of 'conservation', which includes the values of (i) conformity, (ii) tradition and (iii) security. As noted above, there are theoretical grounds to expect that traditional values in particular influence pro-European dispositions, whilst such theoretical arguments are missing for the higher ordered and composite dimension of conservation.

procedures for testing hypotheses concerning causal mediation in the framework of cross-sectional data because it allows researchers to determine the statistical significance of two or more causal paths between a theorised ultimate cause and the final outcome. It has the additional desirable property of allowing for the estimation of the percentage of total covariation between the ultimate cause and outcome accounted by each causal path. Recent work has successfully used SEM to explore the mechanisms of educational achievement (Raudenská, 2022), voting choices in the UK's 2016 EU referendum (Dennison et al., 2020) and support for EU membership (Dennison et al., 2021).

Our structural models estimate path coefficients for the theoretical diagram depicted in Figure 1. Following SEM terminology (Acock, 2013), Figure 1 includes an exogenous variable, four endogenous mediators and three endogenous outcomes. *Years of education* is conceptualised as an exogenous variable – that is, its cause is not theorised in the model. *Attachment to Europe, further European unification* and *remain vote* are endogenous outcomes – that is, determined by endogenous mediators. *Equivalised income, upper-class occupation, universalist values* and *traditionalist values* are endogenous mediator variables – that is, they are theorised to link causally the three endogenous and ultimate outcomes. If the structural approach is correct, at least one of the first two endogenous mediators should significantly channel the effect of *years of education*. Conversely, if the cultural approach is correct, at least one of the last two endogenous mediators should channel the effect of *years of education*. Beyond assessing whether path coefficients (linking education and identification) are statistically significant, whenever appropriate, we calculate the percentage of the total effect of *years of education* that flows through each of the four theorised mediators (Shrout and Bolger, 2002).<sup>6</sup>

Conclusions drawn from SEM evidence hinge critically on the directionality assumption, which is rarely addressed by research using SEM (Kline, 2015). It is thus of paramount importance to provide compelling reasons as to why the direction of causality flows mainly from the exogenous variable  $(X_1)$  into the mediators  $(X_2)$  and from the latter into the endogenous outcome (Y) – rather than from  $X_2$  into  $X_1$  or from Y into  $X_2$ . In the case at hand, a long literature in stratification reports that a person's education is a critical determinant of his or her income and social class (e.g., Goldthorpe, 2000; Oesch, 2006). There is less research on schooling influences on students' values, and most work in that area is not longitudinal; hence, it cannot disentangle value similarity due to socialisation by school or self-selection (Sagiv and Schwartz, 2022; Twito and Knafo-Noam, 2022). Yet, in a recent longitudinal study, Berson and Oreg (2016) provide compelling longitudinal evidence that the cultural environment of schools produces changes in children's values, thus justifying that the primary causal effect is from school to values rather than the opposite.

With respect to the second phase of the theoretical diagram – the mediators–outcomes links – extensive research documents that an individual's social class and income shape his or her collective identity (e.g., his or her class identity) (Hout, 2008). Similarly, given that human values are general belief configurations that get activated in transversal settings (Sagiv and Schwartz, 2022), they can be expected to have a larger impact on European dispositions than that of European dispositions on values.

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<sup>&</sup>lt;sup>6</sup>Paskov and Weisstanner (2022) provide a recent exception.

We hence estimate recursive structural equation models to assess the mechanisms that link individual education to three different European attitudes. As our focus is on the EU as a whole and not on individual countries, we pool data for the 23 states for which we have data. To facilitate the interpretation of continuous variables, all continuous variables have been rescaled (0-1), and below, we present standardised coefficients. Models with unstandardised coefficients yield similar substantive results. We use linear regressions for seven sub-equations and linear probability models (LPMs) for one sub-equation. Whereas LPM remains unconventional in sociology, in a simulation study, Mood (2010, p. 78) reports that LPM coefficients are 'identical or as good as identical' to average marginal effects from logit models.

In conducting the analysis, we follow the recommendation by SEM methodologists (Hoyle, 2015; Kline, 2015) and proceed iteratively. After estimating an initial model with the most parsimonious configuration for each outcome, we evaluate fit statistics and then respecify the model allowing for correlations between the error terms (Tables 1-3) (Acock, 2013). Then, and based on the model with correlated errors, we estimate the direct and indirect path coefficients for the effect of *years of education*. Finally, we calculate what percentage of the total effect of *years of education* on each of the three dependent variables is direct and what percentage is mediated by each of the socio-economic and value indicators. We present the results of these estimates and calculations in Table 4.

# **IV.** Results

In a preliminary step of the analysis, we assess the fitness of pooled models restricting the correlation of error terms to 0 and then lifting this restriction. The three models with the restriction are a very poor fit to the data (results available upon request). Yet once we allow for that correlation, the fitness of the pooled models for the three outcomes is very good. In what follows, we thus focus on models that, based on modification indices, allow for correlations between the errors for the endogenous variables in the models (Acock, 2013).

The models in Tables 1–3 show that respondents with more *years of education* earn significantly higher incomes, are more likely to be members of the *upper class*, hold more *universalist values* and hold less *traditionalist values*. All these associations are in line with previous research on social stratification and cultural sociology.

The associations between the four mediators and three outcomes are also in the expected direction. When age, gender, the ESS round and the country fixed effect (FE) were controlled for in the pooled models, respondents with higher income, those with an upper-class occupation and those who hold more universalist values display significantly higher levels of attachment to Europe, show more support for further European unification and would be more likely to vote remain in a hypothetical EU referendum (Tables 1–3). By contrast, having more traditionalist values is negatively related to the three outcomes. More importantly, and because the coefficients are standardised, *equivalised income* has the strongest direct effect on *attachment to Europe* and *remain vote*, whereas *universalist values* has the strongest direct effect on *European unification*. This evidence already suggests that socio-economic conditions have a stronger effect on pro-European dispositions than have value structures.

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	Attachment to Europe	Equivalised income	Upper class	Universalist values	Traditionalist values	
Years of education	0.078*** (0.000)	0.219*** (0.000)	0.422*** (0.000)	0.104*** (0.000)	$-0.086^{***}$ (0.000)	
Equivalised income	0.099*** (0.000)	(0.000)	(0.000)	(0.000)	(0.000)	
Upper-class occupation	0.029*** (0.000)					
Universalist values	0.058*** (0.000)					
Traditionalist values	$-0.010^+$ (0.051)					
Female	0.028*** (0.000)	$-0.055^{***}$ (0.000)	-0.000 (0.955)	0.094*** (0.000)	0.056*** (0.000)	
Age	$-0.103^{***}$ (0.000)	0.328*** (0.000)	0.182*** (0.000)	0.497*** (0.000)	0.339*** (0.000)	
Age <sup>2</sup>	0.188*** (0.000)	(0.000) -0.230*** (0.000)	(0.050) -0.048* (0.050)	$-0.365^{***}$ (0.000)	$-0.146^{***}$ (0.000)	
Profession of the father Higher admin. occup. (ref. cat. professionals)	-0.008	0.021***	-0.016**	-0.023***	0.013*	
Clerical occupations	(0.167) -0.017** (0.007)	(0.000) $-0.014^{**}$	(0.003) -0.027***	(0.000) $-0.026^{***}$	(0.025) 0.030*** (0.000)	
Sales occupations	(0.007) $-0.024^{***}$ (0.000)	(0.005) $-0.026^{***}$ (0.000)	(0.000) $-0.041^{***}$ (0.000)	(0.000) $-0.047^{***}$ (0.000)	(0.000) 0.033*** (0.000)	
Service occupations	(0.000) $-0.025^{***}$ (0.000)	(0.000) $-0.044^{***}$ (0.000)	(0.000) $-0.066^{***}$ (0.000)	$-0.038^{***}$ (0.000)	0.039*** (0.000)	
Skilled worker	$-0.059^{***}$ (0.000)	(0.000) $-0.062^{***}$ (0.000)	(0.000) -0.107*** (0.000)	$-0.050^{***}$ (0.000)	0.080*** (0.000)	
Semi-skilled worker	$-0.054^{***}$ (0.000)	(0.000) -0.087*** (0.000)	(0.000) -0.130*** (0.000)	$-0.056^{***}$ (0.000)	0.084*** (0.000)	
Unskilled worker	$-0.043^{***}$ (0.000)	(0.000) -0.087*** (0.000)	(0.000) -0.118*** (0.000)	$-0.042^{***}$ (0.000)	0.080*** (0.000)	
Farm worker	$-0.049^{***}$ (0.000)	(0.000) -0.090*** (0.000)	(0.000) $-0.129^{***}$ (0.000)	$-0.052^{***}$ (0.000)	0.128*** (0.000)	
ESS round FE Country FE	Yes Yes	Yes Yes	Yes Yes	Yes Yes	Yes Yes	
Constant	1.917*** (0.000)	1.367*** (0.000)	$-0.699^{***}$ (0.000)	4.028*** (0.000)	3.872*** (0.000)	
$R^2$ $\chi^2$ /CFI/RMSEA/BIC/coef. of det. Observations/countries	0.061 0.418 0.216 0.117 0.108					

Table 1: Structural Equation Model of Attachment to Europe in 23 EU Member States With Standardised Coefficients (Weighted by Population), 2016–2022.

Note: p-values in parentheses.

Abbreviations: BIC, Bayesian information criterion; CFI, comparative fit index; ESS, European Social Survey; EU, European Union; FE, fixed effect; RMSEA, root mean square error of approximation. \*p < 0.05. \*\*p < 0.01. \*\*\*p < 0.001. \*\*p < 0.01.

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	European unification	Equivalised income	Upper class	Universalist values	Traditionalist values	
Years of education	0.091***	0.219***	0.422***	0.104***	-0.086***	
	(0.000) 0.058***	(0.000)	(0.000)	(0.000)	(0.000)	
Equivalised income	(0.000)					
Upper-class occupation	0.038*** (0.000)					
Universalist values	0.114*** (0.000)					
Traditionalist values	(0.000) -0.066*** (0.000)					
Female	$-0.014^{**}$	-0.055***	-0.000	0.094***	0.056***	
	(0.003)	(0.000)	(0.955)	(0.000)	(0.000)	
Age	-0.349***	0.328***	0.182***	0.496***	0.339***	
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	
Age <sup>2</sup>	0.352***	-0.230***	-0.048*	-0.364***	$-0.146^{***}$	
	(0.000)	(0.000)	(0.050)	(0.000)	(0.000)	
Profession of the father						
Higher admin. occup.	-0.013*	0.021***	$-0.016^{**}$	-0.023***	0.013*	
(ref. cat. professionals)						
	(0.022)	(0.000)	(0.003)	(0.000)	(0.025)	
Clerical occupations	-0.005	-0.014**	-0.027***	-0.027***	0.030***	
	(0.432)	(0.005)	(0.000)	(0.000)	(0.000)	
Sales occupations	-0.024***	-0.026***	-0.041***	-0.048***	0.033***	
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	
Service occupations	$-0.022^{***}$	-0.044***	$-0.066^{***}$	-0.038***	0.039***	
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	
Skilled worker	-0.064***	-0.062***	-0.107***	-0.051***	0.080***	
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	
Semi-skilled worker	-0.047***	-0.087***	-0.130***	-0.056***	0.084***	
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	
Unskilled worker	$-0.052^{***}$	-0.087***	-0.118***	-0.042***	0.080***	
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	
Farm worker	-0.047***	-0.090***	-0.129***	-0.052***	0.128***	
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	
ESS round FE	Yes	Yes	Yes	Yes	Yes	
Country FE	Yes	Yes	Yes	Yes	Yes	
Constant	1.245***	1.367***	-0.699***	3.828***	3.872***	
2	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	
$R^2_2$	0.091	0.418	0.216	0.117	0.108	
$\chi^2$ /CFI/RMSEA/BIC/	/1.000//-968,600/0.643					
coef. of det.				_		
Observations/countries	48,321/23					

Table 2: Structural Equation Model of Supporting Further European Unification in 23 EU Member States With Rescaled Coefficients (Weighted by Population), 2016–2022.

Note: *p*-values in parentheses.

Abbreviations: BIC, Bayesian information criterion; CFI, comparative fit index; ESS, European Social Survey; EU, European Union; FE, fixed effect; RMSEA, root mean square error of approximation. p < 0.05.  $p^* < 0.01$ . p < 0.001.

	Remain vote	Equivalised income	Upper class	Universalist values	Traditionalist values	
Years of education	0.071***	0.219***	0.422***	0.104***	-0.086***	
Equivalised income	(0.000) $0.090^{***}$ (0.000)	(0.000)	(0.000)	(0.000)	(0.000)	
Upper-class occupation	0.040*** (0.000)					
Universalist values	0.064*** (0.000)					
Traditionalist values	(0.000) $-0.035^{***}$ (0.000)					
Female	0.022*** (0.000)	$-0.055^{***}$ (0.000)	-0.000 (0.955)	0.094*** (0.000)	0.056*** (0.000)	
Age	$-0.449^{***}$ (0.000)	0.328*** (0.000)	0.182*** (0.000)	0.497*** (0.000)	0.339*** (0.000)	
Age <sup>2</sup>	0.453*** (0.000)	(0.000) -0.230*** (0.000)	(0.000) -0.048* (0.050)	(0.000) -0.365*** (0.000)	(0.000) $-0.146^{***}$ (0.000)	
Profession of the father Higher admin. occup. (ref. cat. professionals)	-0.004	0.021***	-0.016**	-0.023***	0.013*	
Clerical occupations	(0.514) -0.007 (0.248)	(0.000) $-0.014^{**}$	(0.003) -0.027***	(0.000) -0.026*** (0.000)	(0.025) 0.030***	
Sales occupations	(0.248) -0.015* (0.018)	(0.005) $-0.026^{***}$ (0.000)	(0.000) $-0.041^{***}$ (0.000)	(0.000) $-0.047^{***}$ (0.000)	(0.000) 0.033*** (0.000)	
Service occupations	$-0.013^{*}$ (0.034)	$-0.044^{***}$ (0.000)	$-0.066^{***}$ (0.000)	$-0.038^{***}$ (0.000)	0.039*** (0.000)	
Skilled worker	$-0.050^{***}$ (0.000)	$-0.062^{***}$ (0.000)	-0.107*** (0.000)	$-0.050^{***}$ (0.000)	0.080*** (0.000)	
Semi-skilled worker	$-0.026^{***}$ (0.001)	$-0.087^{***}$ (0.000)	$-0.130^{***}$ (0.000)	$-0.056^{***}$ (0.000)	0.084*** (0.000)	
Unskilled worker	$-0.021^{**}$ (0.002)	$-0.087^{***}$ (0.000)	-0.118*** (0.000)	$-0.042^{***}$ (0.000)	0.080*** (0.000)	
Farm worker	-0.001 (0.887)	$-0.090^{***}$ (0.000)	$-0.129^{***}$ (0.000)	$-0.052^{***}$ (0.000)	0.128*** (0.000)	
ESS round FE	Yes	Yes	Yes	Yes	Yes	
Country FE	Yes	Yes	Yes	Yes	Yes	
Constant	1.821***	1.367***	-0.699***	4.028***	3.872***	
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	
$R^2$	0.060	0.418	0.216	0.117	0.108	
$\chi^2$ /CFI/RMSEA/BIC/ coef. of det.	48,327/1.000/0.000/-1,415,000/0.627					
Observations/countries	48,321/23					

Table 3: Structural Equation Model of Voting for Remaining in a Hypothetical EU Referendum in 23 EU Member States With Rescaled Coefficients (Weighted by Population), 2016–2022.

Note: *p*-values in parentheses.

Abbreviations: BIC, Bayesian information criterion; CFI, comparative fit index; ESS, European Social Survey; EU, European Union; FE, fixed effect; RMSEA, root mean square error of approximation. p < 0.05.  $p^* < 0.01$ . p < 0.001.

Considered Mediators.								
	Attachment to Europe		European unification		Remain vote			
	Coef.	Percentage	Coef.	Percentage	Coef.	Percentage		
Total coefficient	0.240***		0.315***		0.364***			
	(0.011)		(0.012)		(0.017)			
Direct coefficient	0.157***	65.6	0.209***	66.5	0.221***	60.7		
	(0.012)		(0.013)		(0.018)			
Equivalised income	0.044***	18.3	0.029***	9.2	0.061***	16.8		
	(0.003)		(0.003)		(0.004)			
Upper class	0.025***	10.4	0.036***	11.5	0.052***	14.3		
	(0.005)		(0.005)		(0.007)			
Universalist values	0.012***	5.1	0.027***	8.7	0.021***	5.7		
	(0.001)		(0.002)		(0.002)			
Traditionalist values	0.002	0.7	0.013***	4.1	0.009***	2.5		

(0.001)

(0.001)

Table 4: Total, Direct and Indirect Effects of *Years of Education* on Three Indicators of Pro-EU Attitudes and Percentages of the Total Effect Occurred Directly and Through the Four Considered Mediators.

Note: *p*-values in parentheses. This table is constructed from evidence in Tables 1-3.

(0.001)

Abbreviation: EU, European Union.

 $p^* < 0.05$ .  $p^* < 0.01$ .  $p^* < 0.001$ .

As the overall size of path coefficients between *years of education* and the outcome depends, however, on the size of *both* coefficients *into* and *from* endogenous mediators, we calculate direct, indirect and total effects of the exogenous education variable on each of the three outcomes (Shrout and Bolger, 2002). The estimates of these path coefficients are included in Table 4. These estimates first indicate that – for EU-23 as a whole – the total effect of *years of education* on all three outcomes is positive and statistically significant. A change from 0 to 35 years of education increases by 0.240, 0.315 and 0.364 the predicted values of *attachment to Europe, European unification* and *remain vote*, respectively. As all variables have been rescaled (0-1), these are clearly substantial effects.

More importantly, Table 4 indicates that the indirect effect of education through the three mediators are all positive and significant. Respondents' income, having or not having an upper-class occupation and commitment to universalist values mediate significantly the effect of education on the three outcomes. This critical evidence already indicates that the structural and cultural approaches help us understand the causes for the cross-sectional link between individual education and pro-European dispositions.

Although the four endogenous mediators channel the association between education and the three outcomes, they do not necessarily have the same mediational power. Thus, in a further step, we calculate the percentage of the total effect of *years of education* that is a direct effect and the percentage of the total effect of *years of education* that is mediated by socio-economic status and values. The second, fourth and sixth columns in Table 4 provide these estimates. This evidence makes it clear that the four intervening variables do not have equivalent mediational power. Of the four, *equivalised income* plays the biggest role in mediating the effect of education. It accounts for 18.3% and 16.8% of the effect of education on *attachment to Europe* and *remain vote*, respectively, and for 9.2% of its effect on *European unification*.

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Upper-class occupation is the second most important mediating variable. It accounts for 10.4% and 14.3% of the effect of education on *attachment to Europe* and *remain vote*, respectively. In sharp contrast, *universalist values* and *traditionalist values* play a negligible role in mediating the effect of education on either of the three dependent variables. Universalist values, for instance, account for less than 6% of the effect of education on *attachment to Europe* and *remain vote* and only 9% of the effect of education on support for faster European unification.

Therefore, socio-economic factors are more relevant mediators of the impact of education on the three outcomes than values are. That being said, it is important to keep in mind that between 60.7% and 66.5% of the effect of education on the three outcomes is direct. In other words, most of the effect of education on the outcomes does not occur through these mediators, but through other factors instead.

The analysis above confirms that education is a robust predictor of pro-European dispositions and that this effect is channelled more through socio-economic variables like income and upper-class occupation than through the two considered values. Yet, are these findings a statistical artefact resulting from the use of *years of education* as the measure of education? To assess the robustness of our findings to the use of alternative measures of education, we re-estimated the models in Tables 1–3, this time using the ISCED level (1–7) as the exogenous variable, and then calculated the total, direct and indirect effects (Table S3). The statistical results that we obtain using this alternative indicator are largely consistent with those obtained with *years of education*. Again, a large proportion of the direct effect of education (between 68% and 71%) is not mediated by the four factors. And, again, income is the strongest mediator for each of the three outcomes (tied with upper class in the explanation of *European unification*).

Income thus stands out as the biggest mediator. Is this an artefact resulting from using the equivalised measure of income? Also, do we observe similar results if we estimate a more complex causal model in which the effects of income and class status are, themselves, mediated by traditional and universalist values? Finally, could the observed effects be confounded by different levels of political interest across the population? Tables S4 and S5 help answer these questions. They show that income is still the strongest mediator of the effect of education when we use the household income decile (Table S4), when we estimate the effects of income and class status on each of the three dependent variables through *universalist values* and *traditionalist values* (Table S5) or when we use *political interest* as an additional control variable (Table S6).

The theoretical model presented above (based on Gabel, 1998, and Delhey et al., 2015) suggests that having an upper-class occupation is an important mediator for the link between individual education and pro-European dispositions. Yet the role of one's occupation may be more gradational than categorical. We thus replicate the main models using the *ISEI* instead of upper-class occupation (Table S7). The *ISEI* proves to be a stronger mediator than *household income* for two outcomes (*attachment to Europe* and *remain vote*). More importantly, however, structural factors still play a bigger role in mediating the effect of education than do cultural factors.

# V. Discussion

Persistent social divides in national public opinion over European-related matters can produce backlash over European integration. One of the most robust and substantial divides in this regard is that occurring between highly educated and non-highly educated individuals. Highly educated individuals are disproportionately likely to identify as Europeans and be more supportive of the EU regime. Lack of scholarly attention to the sources of this divide has left us in the dark as for a major source of socio-political tensions over the speed and depth of European integration. By focusing on various mechanisms underlying the education–pro-European dispositions link discussed in the literature, this article throws some light on the origins of these tensions. The article uses structural equation models to test predictions from the structural and cultural approaches to pro-European dispositions.

The most important finding is that, when considering EU as a whole, socio-economic conditions are stronger mediators of the effect of education on the three outcomes of pro-EU dispositions considered here than are human values. Individual income is the strongest mediator of the education–*attachment to Europe* link and of the education–*remain vote* link. Moreover, upper-class occupation and individual income are the strongest mediators of the education–*support for further unification* link. Meanwhile, universalist and traditionalist values play a negligible (for *attachment to Europe* and hypothetical *remain vote*) or moderate (for *support for further unification*) role. In other words, highly educated people are more likely to hold pro-European dispositions, more because they tend to attain higher income and upper- or upper-middle-class jobs than because of holding more universalist and non-traditionalist values.

Another important finding is that although the four mediators account for a substantial 34%-39% of the total effect of education on the three outcomes, they leave unaccounted most of the association (61%-66%) between education and the three outcomes. This calls for more theoretical reflection about the mechanisms explaining the education effect. We speculate, for instance, that because sociability networks tend to be structured along education, isomorphic processes may homogenise pro-European dispositions within groups of people with similar levels of education, regardless of their income and occupational status.

This article's results are methodologically and theoretically relevant. Together with previous research (Dennison et al., 2020, 2021), they demonstrate the potential of mediation analyses to illuminate our understanding of the micro-level dynamics underlying major divides in dispositions towards Europe. The study's general strategy could be applied to shed light on the relative importance of competing or complementary mechanisms with respect to other cleavages in pro-European dispositions (e.g., gender and age) documented by prior work (Fowler, 2022).

More importantly, the evidence presented above indicates that a socio-economic approach has far more leverage than a value-based one in explaining the education effect on pro-European dispositions. Even though our study has the clear limitation – due to data availability – that it does not illuminate the various social and psychological processes that link high-income/upper-class occupation to these three types of dispositions, it does help to narrow down the set of factors that matter in the explanation of the education effect. This article's results are a major challenge to the value tradition in European

integration studies. They suggest that their influence is trivial relative to other psychological, social and cultural factors.

Apart from the fact that it does not account for the factors intervening between socio-economic status and pro-European dispositions, this study suffers from three additional limitations. Because the analysis draws exclusively on cross-sectional data, it may be affected by reverse causality and unobserved heterogeneity. Although there are strong reasons to believe in the validity of the causal diagram in Figure 1, we cannot fully rule out that some of the results reflect reverse causality to some degree. This is because dispositions towards Europe may affect income and occupational status, and values may have an effect on educational attainment, occupational status and income. The estimated effects may also partially capture the influence of unobserved factors. Finally, other human or social values apart from universalism and traditionalism or different forms of cultural practices may perhaps impact pro-European dispositions.

Future work could build on this study. The scholarship suggests that privileged individuals hold more pro-European dispositions because they (i) are objectively better informed regarding the advantages of European integration, (ii) engage disproportionately in more transnational practices that establish lifestyles attuned to Europeanisation or (iii) have developed greater affinity to the population or institutions of other European countries. The relative salience of several of these mechanisms is testable with other data sources, and this would go a long way towards reducing the still-unexplained education effect. This project documents the mediation effects of socio-economic conditions and values in the EU considered as a whole, but this mediation may differ cross-nationally. Future work could explore this potential cross-national variation and, possibly, try to account for it. Additional research could also consider if structural factors have a stronger mediational effect of education on concrete pro-European policies (e.g., support for a European army or a European unemployment insurance).

Until this research is conducted, this article contributes to the literature on pro-European dispositions by showing that the association between individual education and attachment to Europe, support for further integration and a hypothetical remain vote is more strongly mediated by socio-economic factors – in particular, individual income and upper-class occupation – than by values like universalism and traditionalism.

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## **Supporting Information**

Additional supporting information may be found online in the Supporting Information section at the end of the article.

Table S1. Descriptive statistics of all variables.

Table S2. Correlation matrix.

**Table S3.** Total, direct and indirect effects of *ISCED level* (1-7) in structural equation models of each of the three pro-European dispositions in 23 EU member states with rescaled coefficients (weighted by population), 2016–2022.

**Table S4.** Total, direct and indirect effects of *years of education* in structural equation models of each of the three pro-European dispositions in 23 EU member states with rescaled coefficients (weighted by population) and using the decile of the household income, 2016–2022.

**Table S5.** Total, direct and indirect effects of *years of education* in structural equation models of each of the three pro-European dispositions in 23 EU member states with rescaled coefficients (weighted by population) using universal and traditional values also as mediators of the link between income and occupation and pro-European attitudes, 2016–2022.

**Table S6.** Total, direct and indirect effects of *years of education* in structural equation models of each of the three pro-European dispositions in 23 EU member states with rescaled coefficients (weighted by population) using political interest as an additional control variable, 2016–2022.

**Table S7.** Total, direct and indirect effects of *years of education* in structural equation models of each of the three pro-European dispositions in 23 EU member states with rescaled coefficients (weighted by population) using ISEI instead of upper-class occupation, 2016–2022.