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**Societal Education and the Education Divide
in European Identity, 1992-2015**

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The fact that highly educated individuals are significantly more likely to self-identify as Europeans than those with lower levels of educational attainment is one of the most robust findings in the scholarship on individual Europeanization. Previous work also shows that this cleavage in supranational identification varies cross-nationally and over time. We contribute to the existing literature by examining the country-level, socio-structural conditions that influence the education cleavage. Focusing on how the educational environment influences identity formation, we test two divergent predictions of how societal education – i.e. the average national level of educational attainment – shapes the cleavage between individuals of differing education levels with respect to their self-identification as European. According to Christian Welzel’s (2013) ‘cross-fertilization approach,’ societal education should widen the education divide. By contrast, our alternative ‘cross-attenuating approach’ posits that societal education should instead help to close it. Using a cross-national time-series dataset that includes 28 EU member states and 28 Eurobarometers covering 1992-2015, as well as between-within multilevel models, we find a significantly narrower education cleavage in countries where societal education increased the most during the period of our study. This result provides strong support for the cross-attenuating approach presented here. We theorize that societal education helps to narrow the individual-level education cleavage through a discursive and a network mechanism.

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The cleavage in pro-European attitudes created by disparities in educational attainment is one of the best-documented and least understood findings in the survey-based literature on Europeanization at the individual level. Many studies show that the more highly educated one is, the more likely she or he is to self-identify as European, feel attached to Europe, and support the European Union (EU) (Díez-Medrano, 2017; Hobolt and de Vries, 2016; Fernández, Eigmüller and Börner, 2016). However, the education cleavage varies considerably across EU member states (McLaren, 2006). Reflecting this substantial cross-national variation, two recent studies examine the country-level conditions that widen or narrow that divide. They argue that accelerated vertical Europeanization (Hakhverdian, van Elsas, van der Brug et al., 2014) and accelerated income inequality (Kuhn, van Elsas, Hakhverdian et al., 2016) accentuate the already substantial divide between individuals with differing levels of educational attainment (high versus low) with respect to pro-European attitudes. Following the latter work, we focus on the scope conditions of this cleavage by addressing two questions: Does the education divide in an individual's propensity to self-identify with Europe vary cross-nationally and longitudinally? If so, is it attenuated by higher levels of societal education?

We define societal education conventionally as the average formal level of education in any given population. Although societal education has been overlooked as a factor in the construction of supranational identities, there are strong reasons to consider it a relevant socio-structural dimension that plays a key role in this process. Our study tests two divergent predictions. According to the 'cross-fertilization approach' formulated by Christian Welzel (2013), societal education should widen the education cleavage in European self-identification. This is because higher societal education tends to reinforce the worldviews of the more highly educated and encourage

their interaction with others in this group, broadening the attitudinal gap between them and the less educated.

By contrast, our ‘cross- attenuating approach’ argues that rapid increases in societal education should help *close* the education cleavage in European self-identification and posits two mechanisms for this. We suggest that a rapid growth in societal education deepens the social stigmatization experienced by less educated persons, ultimately reducing the intensity of their political convictions and increasing their willingness to adopt the worldview of highly-educated, pro-European citizens (*network mechanism*). Rapid societal education growth also incentivizes mainstream media to embrace the normative positions of highly-educated, pro-European citizens, eroding the cultural legitimacy of nationalist outlooks that tend to predominate among the less educated (*the discursive mechanism*).

Although data limitations preclude us from testing these two mechanisms, we do test their core common prediction – that societal education plays a moderational role on self-identification as European – through a cross-sectional time-series (CSTS) analysis of the determinants of European identity in EU-28 member states between 1992 and 2015. Self-identification as European, which we expect to structure a particularly enduring set of personal beliefs and to play a key molding role with respect to other forms of pro-European sentiment, is the dependent variable in our analysis. In keeping with our focus on societal education as an attenuating factor on the education cleavage at the individual level, and in order to exploit the CSTS nature of our data, we estimate three-level, between-within models. These models can disentangle potential cross-sectional, moderational effects from longitudinal ones by indicating whether the education cleavage was larger (or smaller) in contexts with relatively high levels of

societal education, or in those where societal education increased the most between 1992 and 2015.

Our research reveals that a rise in the level of societal education strongly attenuates the gap between individuals with both higher and lower levels of educational attainment with respect to European identity. In other words, we found the narrowest education cleavage in those countries where average educational attainment increased the most during the period under study. This main finding is consistent with our cross-attenuating approach and inconsistent with the cross-fertilization approach of Welzel (2013).

Previous Research on Europeanization and Individual-level Education

The role of formal education in the formation of pro-European attitudes and beliefs has been a core interest in the survey-based literature on Europeanization. In fact, most empirical studies of recent decades find a positive relationship between years of education at the individual level and range of pro-European sentiment (Hobolt and de Vries 2016: p. 426). This research finds that more highly educated individuals are more likely to express support for the EU and European integration (Gabel, 1998: p. 53; Garry and Tilley, 2009: p. 372; Lubbers and Scheepers, 2007: p. 661; Kuhn et al., 2016: p. 37) and to self-identify as Europeans (Fligstein, 2008: p. 145; Polyakova and Fligstein, 2016: p. 76) than less educated persons within the same society.¹ In a recent review, Díez Medrano (2017: p. 20) has highlighted educational level as the most consistent determinant of one's likelihood to self-identify as European. We even have indications that the 'education effect' has increased over time (Hakhverdian et al., 2014).

Although the existence of an education cleavage in pro-European attitudes is thus now widely accepted among scholars of Europeanization, the reasons behind this empirical relationship remain contentious. Using mainly individual-level approaches, scholars have adopted four main models to explain the driving mechanisms behind the education–Europhile link: (a) the *utilitarian* model, which stresses individual economic incentives; (b) the *transactional* model, which stresses engagement in transnational practices; (c) the *value-based* model, which focuses on cosmopolitan dispositions; and (d) the *cognitive* model, which stresses information-processing skills.

The *utilitarian* model, initially formulated by Gabel (1998, Gabel and Palmer, 1995), argues that education is relevant because it determines the personal cost-benefit balance of the opening of national markets. More educated workers are better able to transfer their scarce skills to higher-wage economies, or use those talents to bargain for better conditions in their home countries, which creates incentives to support European integration (Koehn and Rosenau, 2002; Margalit, 2012). By contrast, the *transactional* model stresses the opportunities for transnational practice that education opens up. More highly educated individuals have more international interactions than others (for example, due to their language skills), which contributes to the formulation of an inter-subjective structure of symbols and habits and thus helps dispel prejudices and strengthen collaboration, ultimately contributing to the formation of a common collective identity (Deutsch, 1952; Kuhn et al., 2016; Fernández et al., 2016).

A third, *value-based*, model builds on the fact that formal education also structures how individuals envision desirable social relationships. Formal education not only imparts knowledge and skills but also fosters universalist, non-exclusionary and tolerance dispositions (Norris and Inglehart, 2009), which tend to increase open-mindedness and weaken the incidence of nationalist attitudes (Hainmueller and Hiscox,

2007; Hooghe and Marks, 2005; McLaren, 2002). Finally, the *cognitive* model states that the information-processing skills that individuals acquire through formal education gives them a broader basis for understanding distant and complex polity units like the European Union (Inglehart, 1970; Hobolt, 2012), mitigating the fear of the unknown that commonly sustains traditionalist views such as national-only identification.

Although these four models posit important mechanisms through which to explain how individual education covariates with pro-European sentiment, they focus exclusively on the within-country relationship between educational groups without addressing or explaining the substantial cross-national variations in this divide.

Nevertheless, the latter have been documented in several studies. McLaren (2006: p. 36), for instance, finds that the marginal effect of education on support for European integration differs noticeably across European countries. In France, for example, the effect is seven times larger than in Sweden. Seeking to address this country-level variation, two recent studies consider the institutional (Hakhverdian et al., 2014) and economic (Kuhn et al., 2016) bases of the education cleavage.

Hakhverdian et al. (2014) note that, since 1992, empowered European institutions have accelerated legal harmonization and market integration, shaping individual incentives. Deeper market integration has broadened the economic advantages across education groups and facilitated cross-border migration, which in turn may have triggered fears among the less educated of symbolic and material threats. These developments are reflected in the gradual increase in the education divide in Euroscepticism, especially since 1992. As we discuss in the next section, Kuhn et al. (2016) link the education cleavage in pro-European attitudes to another macro-level factor: rising income inequality.

While acknowledging that the education cleavage can have institutional foundations, the following analysis focuses on socio-structural conditions. In particular, we postulate that one under-analyzed factor – the educational environment – also affects the size of this divide.

Structural Context and the Education Divide in European Identity

The impact of socio-structural conditions on pro-European attitudes is still relatively underexplored. Nevertheless, recent research offers strong reasons as to why general *characteristics* and *trends* in society may affect the education divide in European identity. In this paper, we specifically consider the role of societal education and economic inequality on the education cleavage. Societal education here simply means the average level of education attainment of a population on a given country-year, measured by average years of education. According to the cross-fertilizing approach, societal education deepens gaps in social values across education groups. By contrast, our cross-attenuating approach theorizes that higher levels of and increases in societal education actually attenuate those differences. As an alternative economic-structural factor, we discuss the role of increases in economic inequalities.

Cross-fertilization Approach

The cross-fertilization approach argues that higher levels of societal education transform interactions among the highly educated and facilitate social distinction strategies, increasing the differences between individuals in this group and the less educated with respect to their likelihood to self-identify as European. In his theory of macro-historical social value change, Welzel (2013) formulates the case of the intra-elite interactions mechanism most forcefully. As societies modernize, he argues, they

adopt *emancipative values*; that is, they place increasing importance on the individual's freedom from external constraints and ability to pursue her or his chosen goals. These emancipative values have, moreover, a non-egoistic and anti-nationalistic thrust. Valorizing their own freedoms leads individuals to adopt humanitarian norms, such as empathy and solidarity. This strengthened solidarity predisposes them to engage in cross-group interactions that ultimately help to broaden collective forms of personal identification to include transnational or European identities (Welzel, 2013: pp. 51, 201-209; Inglehart and Welzel, 2005: p. 144).² The model continues that we only embrace personal and solidaristic freedom values when abundant intellectual and material resources are available. Only in such a context is freedom of action welfare-enhancing, providing the emotional satisfaction that undergirds emancipative values. On this basis, the model predicts that better educated individuals and societies have more emancipative dispositions than less educated ones.

More important, Welzel (2013: p. 108-121) states that the individual- and country-level effects of formal education reinforce each other. While a context of higher education enhances empathy and increases the kind of cross-group interactions that diminish parochial and/or national identifications, this affects the highly educated more strongly than the less educated:

When education becomes more prevalent in a society, the emancipatory tendencies inherent in education are more frequently signaled and received. Especially people with higher education then feel confirmed in their emancipatory tendencies and follow them more freely. This is the *social confirmation mechanism*. Social confirmation “amplifies” the emancipatory tendency of higher education (Welzel, 2013: p. 110).

Increased societal education, he argues, increases the proportion of university graduates in a society, bolstering interactions among individuals in that educational stratum and contributing to the mutual reinforcement of their distinctive worldviews. A high level of societal education unhinges the more highly educated from cultural

inhibitions, and allows them to embrace emancipatory strategies to the fullest, thus widening the divide between them and the lesser educated members of their societies. The reaction of less educated citizens may also reinforce this process: if ingroup interactions among the least educated increase with societal education, their exposure to elite political discourse may decrease, thus strengthening anti-European attitudes among those in this group.

Apart from sharpening the distinct worldviews of the highly educated and the less educated, increased societal education can also affect the education divide by transforming strategies of social differentiation. The upper classes in European countries increasingly rely on transnational activities – for example, foreign language use or international travel – and a cosmopolitan *habitus* in order to expand their symbolic capital, differentiate themselves from the lower classes, and achieve class reproduction (Gerhards, Hans and Carlson, 2017; Kuhn, 2015; Meuleman and Savage, 2013). According to Delhey, Deutschmann and Girlanau (2015: 274), reliance on this strategy varies cross-nationally. It should have special prominence in rich countries, where the general availability of basic goods makes basic conspicuous consumption a less effective form of class differentiation and where the high purchasing power of the upper classes enables them to distinguish themselves via relatively costly transnational activities. In better educated societies, transnational goods and activities are more present in everyday life than they are in less educated ones. Such a context thus offers highly educated citizens more regular exposure to these distinction-producing, transnational symbols and activities, setting them even further apart in their practices and worldviews from less educated citizens, thereby widening the education divide in European identification.

H1: Countries with higher levels of societal education display deeper education cleavages with respect to European identity than those with lower levels of societal education.

Cross-attenuating Approach

While the cross-fertilizing approach predicts that societal education will enhance the education divide in European identity, we argue the opposite. In our view, societal education should actually *reduce* this education cleavage. Our reasoning builds on the principle that countries with high and relatively rapidly increasing levels of societal education have different forms of collective representation and practices, both of which disproportionately affect the beliefs of less educated individuals through *discursive* and *network* mechanisms. Although our empirical analysis does not provide separate tests for these two mechanisms, it does assess their core and common prediction that societal education reduces the effect of individual education on one's tendency to self-identify as European.

The *discursive* mechanism is mainly structured by the mass media. We know that the media plays a key role in the construction of meaning and public opinion (Gamson and Modigliano, 1989: p. 2; Zaller, 1992), that on the European continent exposure to positive news coverage about the European Union tends to promote personal identification with Europe (Bruter, 2003, 2009; Galpin and Trenz, 2018), and that coverage of Europeanization by mass media outlets is country-specific (Walter, 2017).

Building on these facts, a case can be made that societal education level does structure mainstream media discourse. Although the media sphere is increasingly fragmented in European countries and Eurosceptic positions appear overrepresented in

online social networks (De Wilde, Michailidou and Trenz, 2017; Segesten and Bosseta, 2017), mainstream media outlets are still central forces in public opinion formation (Flaxman, Goel, Rao, 2016). Whether privately or state-owned, these mainstream media outlets have incentives to respond to the structural characteristics of their audiences and adjust their discourse on Europeanization accordingly. Thus, the media in highly educated countries could be expected to adopt more pro-European worldviews than in other countries. Supporting this expectation, the average country share of Europhile claims in 24 newspapers from six EU member states reported by Koopmans, Erbe and Meyer (2010: p. 91) is positively correlated with the average years of education ($r=.722$) in each of those states. This suggests that in highly educated societies, mainstream mass media fosters a symbolic and normative pro-European narrative, which helps delegitimize traditional nationalist orientations and anti-European stances. Since less educated citizens also tend to hold less stable political attitudes than their more educated counterparts (Billiet, Swyngedouw, and Waeye, 2004; Granberg and Holmberg, 1996), one would expect their beliefs and identities to be particularly sensitive to this pro-European cultural environment. With stronger, top-down, symbolic, media-based pressures to position themselves as pro-European, less educated citizens in highly educated societies can be expected to adapt their views accordingly, thus narrowing the education cleavage in pro-European attitudes.

This leads to a second mechanism, the *network mechanism*, which stresses the impact of interactional changes on the education divide. According to the classic Durkheimian principle (Durkheim, 1995[1912]: p. 425), participation in networks of believers facilitates the persistence of those shared beliefs among individuals. Recurrent interactions with like-minded individuals contribute to the constant reactivation of those worldviews in individual thought and action. When those interactions diminish, these

beliefs withdraw into the private sphere and lose salience, making space for new worldviews to take hold (Stark, 1996).

This principle suggests that, in countries with relatively high levels of societal education, individuals with only a primary education or with an incomplete secondary education – who are also less likely to self-identify as European than their more educated peers – represent a smaller proportion of the population and have fewer opportunities to reinforce their worldviews through interactions with other like-minded individuals of similar educational standing than they do in other societies. Instead, they are more likely to interact with highly educated citizens, who tend to be pro-European and have higher internal political efficacy (Hadjar and Schlapbach, 2009). Hence, less educated citizens face heightened pressures to adopt transnational outlooks in a such a context. The fact that transnational symbols are more constantly present in everyday culture within highly educated societies, lowering the opportunity costs of less-educated citizens to conduct these identity-shaping activities (Kuhn, 2016), only serves to reinforce this process. In the face of these context-driven pressures and modified incentives, less educated individuals living in highly educated societies can be expected to embrace international orientations and self-identify as Europeans more frequently than those in societies where societal education is relatively low.

H2: In countries with higher levels of societal education, the education cleavages with respect to European identity is narrower than in those with lower levels of societal education.

Thus far, our discussion has only considered the *discursive* and *network* mechanisms in relation to the *level* of societal education. Yet the logic of these mechanisms also extends to the *speed of change* in societal education. Because their business product is socio-political information, mainstream media outlets have a

sophisticated understanding of major social *trends*. Mass media content, in fact, reports more intensely on socio-economic changes than on socio-economic levels (Soroka, Stecula and Wlezien, 2005). This sophisticated understanding heightens the mainstream media's capacity to adapt its narratives in keeping with the speed of change of societal education (Blumler and Gurevitch, 1996: p. 123). In countries where societal education is slow to change, the mass media have incentives to adopt positions consistent with synchronic conditions, that is, with the preferences of the average consumer. By contrast, in countries where education is rapidly expanding, media outlets have incentives to forerun predicted long-term value changes in their public and to adopt the normative positioning of highly educated citizens (Blumler and Gurevitch, 1996: p. 123) in anticipation of their expected numeric predominance in the near future. This means that in countries with fast-increasing education, mainstream media outlets will tend to embrace a pro-European stance, which presses low educated citizens to abandon nationalistic outlooks.

Following the 'discredit hypothesis' of Solga and colleagues (Solga, 2008; Gesthuizen, Solga and Künkster, 2011), we can also expect that a rapidly increasing level of societal education makes less educated persons more amenable to political influence from those who are more highly educated. Research on stigmatization notes that having discrediting attributes lowers a person's social status and triggers exclusion and discrimination (Link, Phelan and Hatzenbuehler, 2014), that collective penalties for having discrediting traits increase as the trait become less common (Jones, Farina, Hastorf et al., 1982), and that low education is a stigmatizing attribute in modern societies (Goffman, 1986[1963]). Solga and colleagues extend this work by arguing that the behavioral consequences of stigmatization due to a relative lack of educational attainment vary with the educational characteristics of each society. A rapid rise in the

average educational level within any given society, they claim, raises the cultural importance of education and amplifies negative stereotypes about the less-educated, which the latter tend to internalize, harming their self-conception and perceived employability. ‘The result is that low education is a social stigma in knowledge-based economies. Thus, low-skilled persons may face an *increasing risk* of withdrawal and of self-exclusion from labor markets’ (Solga, 2008: 182, [emphasis added]).

The process described by Solga and associates refers to a more general process. The uncommonness of a discrediting trait activates structural stigmatization (Jones et al. 1982). When the stigmatizing discourse becomes widespread, individuals are more likely to internalize negative views of their group and have lower self-esteem, which affects their ability to withstand conformity pressures by the dominant group (Hatzenbuehler et al., 2013). This suggests, that when societal education increases quickly, the less educated hold less intense political beliefs, making them more liable to take on the worldviews and identity of highly educated, pro-European groups.

H3: Countries with greater increases in societal education display narrower education cleavages with respect to European identity than other societies.

Economic Approach

The increase in income inequality in most post-industrial economies since the 1970s could also affect attitudes towards European integration and, more specifically, the education cleavage with respect to opposition to European integration. Kuhn et al. (2016) focus on this structural trend, arguing that steeper increases in income inequality accentuate the education cleavage in Euroscepticism. Following a logic similar to that of the cross-fertilization approach, they consider that rising income inequality deepens occupational and residential segregation, which reduces interactions across educational

groups. Educational homophily then stiffens group-specific cultures and accentuates differences in inter-group worldviews. Since rising inequality contradicts the interests of less educated individuals, it boosts their political frustration and apathy towards elite-designed macro-political projects such as European integration. Supporting their expectation, the education cleavage in Euroscepticism is larger in countries with a greater growth in income inequality, which may also occur with respect to European identity.

H4: Countries with greater increases in income inequality display deeper education cleavages with respect to European identity than other countries.

Data and Methods

To test our two hypotheses, we rely on a new dataset that compiles 28 Eurobarometer surveys covering the period from 1992 to 2015. Rather than building on the Mannheim Trend File (Schmitt, Scholz, Leim and Moschner, 2008), which compounds all Eurobarometers between 1970 and 2002, we append files of each Eurobarometer file. This is because the Mannheim Trend File includes an individual education variable with a smaller range (0-22 years) than that of the original 1992-2015 files (0-35 years).

Research on individual Europeanization has mainly focused on attitudes towards the European Union or European identity. Because we consider the latter to be a more enduring belief with greater long-term consequences, we have chosen to focus on it here. Regarding the conceptualization of identity, theoretical work has persuasively differentiated between ‘identification as’ European and ‘identification with’ Europe (Cram, 2012; Díez Medrano, 2017). ‘Identification with’ refers to the perception of a

shared status and destiny as part of a group. By contrast, ‘identification as’ refers to an individual’s self-classification.

Of these two types of identification, our study focuses on ‘identification as’ because indicators for that dimension are available for more years and because it has been the main source of previous work on European identification at the individual level (Díez Medrano, 2017). The corresponding questionnaire item reads ‘In the near future do you see yourself as?’ and lists as possible answers ‘[Nationality] only,’ ‘[Nationality] and European,’ ‘European and [Nationality],’ or ‘European only.’ Following previous research, we combine the last three options and distinguish those who self-identified – to any degree – as European (1) from the remaining respondents (0) (Fligstein, 2008; Fernández et al., 2016).³

The main independent variables respond to the individual and societal characteristics discussed in the “Previous Research” Section. We do not classify *years of education* into three or more groups, because that would require us to make arbitrary decisions about thresholds (high, medium, low) and the expected age of transition between educational levels, which varies by domestic educational system. We also have no theoretical reasons to contend that education should have a non-linear effect. The variable *years of education* refers, therefore, to the age at which the respondent completed her or his full-time education. For those who were still studying at the time of the interview, we use the respondent’s age at that time (Lubbers and Scheepers, 2007). Given the right-hand skew in the distribution of *years of education*, we top-code the variable to age 35. Only .82% of the respondents have a value 36 or higher. We measure *societal education* using the average country-year value in *years of education*. Average years of education is a customary indicator of country-level human capital and

schooling in economics and sociology (Barro and Lee, 2013; Lochner and Moretti, 2004: p. 158).

Regarding country-level control variables, we follow Kuhn et al. (2016) – the only study available with the same general focus on the supra-individual determinants of the pro-European education cleavage – and consider three dimensions: level of income inequality, unemployment, and country embeddedness in global networks. Based on Kuhn et al. (2016), increases in the *Gini index* are expected to enhance the effect of *years of education* (Eurostat, 2018; Solt, 2016). In addition, the models control for the *unemployment rate* (World Bank, 2016) and the *index of de facto globalization* that capture actual flows and activities rather than enabling policies (Dreher, 2006; Gygli, Haelg and Sturm, 2018). Globalization, in particular, may affect European identification, because it disproportionately benefits highly educated citizens (Hooghe and Marks, 2018).

We also include a range of individual-level control variables that can be related to *years of education*. Following the utilitarian approach, the models thus control for seven social and occupational classes: *Student*, *unemployed*, *professional/manager*, *self-employed/employer*, *white collar*, *manual worker*, and *retired*. They also control for gender (variable *female*) and *age*, which previous empirical studies have found to be relevant (Mau, 2005; Nelsen and Guth, 2000). As Eurobarometers since 1992 do not commonly include items about the respondents' party preferences or position in the left-right index, they could not be included in our analysis. We acknowledge that this is a limitation of this study. Further research using alternative sources may assess the role of individual and societal secularization by controlling for individual political orientation.

Concerning the analytical strategy, given that our hypotheses refer to a cross-level interaction, we utilize multilevel models. During the past two decades, random

effects multilevel models have become the method of choice for conducting analyses of observations clustered into higher units (e.g. schools, cities, regions or countries). Most of this work relies on cross-sectional – not longitudinal – data. As noted by Fairbrother (2014), this strategy can be problematic for two reasons. First, since the higher-level sample size is usually small (20 or 30 cases), results can be sensitive to the choice of units. Second, this approach has validity problems because many theoretical predictions in the social sciences refer to longitudinal relationships – i.e., event X produces Y outcome – although the test is conducted with a cross-sectional relationship.

The combined use of comparative longitudinal survey data (CLSD) (also referred to as repeated cross-sectional data) and multilevel designs that identify both ‘between’ and ‘within’ changes minimizes these limitations. CLSD are a type of cross-sectional survey data in which representative samples of different universes are measured in several time points. Multiple temporal observations increase the number of higher-level units, reducing the potential influence of each individual higher-level observation. In this study, the main models include 419 higher-level observations. More important, with longitudinal data it is possible to examine the causes of within-country changes over time. This is critical, as it allows researchers to assess whether a potential variable of interest has different cross-sectional and longitudinal relationships with y , or whether the two associations have the same signs.

Following Fairbrother (2014), we thus estimate a multilevel model that disentangles the longitudinal and cross-sectional association between country-level conditions and outcome. In this model (1) y is the outcome of individual i , country j , and time t , β_0 the constant, x the range of individual-covariates, z the country-level covariates, $z \bullet x$ cross-level interactions, and u_j , u_{tj} , and e_{itj} the country, country-year and individual-country-year error terms, respectively.

$$\begin{aligned}
y_{itj} = & \beta_0 + \beta_1 x_{ijt} + \beta_2 \bar{z}_j + \beta_3 (z_{jt} - \bar{z}_j) + \beta_4 \bar{z}_j \cdot x_{ijt} + \beta_5 (z_{jt} - \bar{z}_j) \cdot x_{ijt} \\
& + \beta_6 time_{jt} + u_j + u_{jt} + e_{itj}
\end{aligned} \tag{1}$$

In equation (1) z has the particularity of including two variables associated with *societal education* and *Gini index*. \bar{z}_j represents the average country value of that characteristic from 1992-2015. It captures the effect of cross-national differences in that country-level condition. By contrast, $z_{jt} - \bar{z}_j$ reflects within-country longitudinal variations in the country-level dimension. β_4 captures the moderational effect of cross-national, time-constant differences in *societal education* on the impact of *years of education* on y ; by contrast, β_5 , captures the moderational effect of longitudinal changes in *societal education* on the impact of *years of education* on y . In other words, the interaction terms β_4 and β_5 reveal how the level of x and its longitudinal variation moderate the impact of *years of education* on y , respectively. All models include a time term (variable *year*) because of possible common and unrelated trending in x_{ijt} and y .

We include all 28 EU member states in our analysis, for several reasons. This ensures complete generalizability to the whole EU and also reduces the leveraging influence of each single country. It also provides sufficient cases to allow calculation of the appropriate three-level models with individuals (level 1) nested in country-years (level 2) and these in countries (level 3). A two-level model would have underestimated standard errors. In the main Model 3 (Table 1), *years of education* is interacted with the four variables discussed above: *mean societal education*, *change in societal education*, *average Gini index* and *change in Gini index*. We assign a random slope to *years of education* at the country and country-year levels.

Given the complexity of the model and in order to reduce computational problems, we introduce the two country-level control variables – *unemployment rate* and *index of globalization* – in a more standard country-year level format. Since they

are introduced as control variables and since we lack strong theoretical reasons to support the idea that the country's level of unemployment and globalization affect the education cleavage in European identity, in the main models they are not interacted with *years of education*.⁴ To facilitate the interpretation of interaction terms, continuous variables have been grand-centered.

Results

We conduct the empirical analysis in two phases. First, we discuss the descriptive results of our database regarding two factors key to our study: societal education and the education cleavage in European identity. If neither dimension indicates sufficient cross-national and longitudinal variation, there are no grounds to consider their relationships through multilevel models. We then present the results of the within-between multilevel models.

Given that our main prediction lies in the moderational influence of societal education on the education cleavage, it is useful to examine the cross-national and longitudinal differences in our indicator for national education levels. For this purpose, Figure 1 depicts the average age at which formal education ends in all EU-28 countries from 1992-2015. The figure shows substantial variation in levels and longitudinal changes. Unsurprisingly, Nordic countries top the ranking for average years of education, followed by Eastern and Western European countries (e.g. Czech Republic, Poland, Slovenia, France, Germany and Netherlands, respectively). These have far higher averages during our study period than Southern European countries such as Italy and Spain. Interestingly, growth rates in average years of education do not display the opposite ranking. Contrary to a catching-up expectation, societal education increases the

most among Nordic countries, followed by Western European, Southern European and Eastern European countries.

FIGURE 1 ABOUT HERE

To assess whether the education cleavage in European identity also shows substantial cross-national and longitudinal variation, we estimate country-year logit models with all individual controls. Based on these models, we obtain 419 marginal effects of individual education on European identity and depict them in Figure 2. All 400 (95.47%) significant marginal effects have a positive direction. In all country-years in which education shapes European self-identification, individuals with higher levels of educational attainment are more likely to self-identify as Europeans than less educated ones. Also importantly, Figure 2 displays substantial cross-national and longitudinal variation in the education cleavage, which is largest in Western Europe, followed by Eastern Europe, Southern Europe and Nordic countries. How the education cleavage develops over time also differs by country. It specifically increases in 11 countries (e.g. France, Germany and Portugal), is stable in eight other countries (e.g. Italy or Spain), and declines in nine of them (e.g. Hungary, Ireland, Luxembourg and United Kingdom). Between 1992 and 2015, both the size and evolution of the education cleavage in European identification thus varies substantially in EU-28 member states. Some countries (e.g. France) display much larger divides than others (e.g. Sweden), but there is no common pattern for this country-year variation. How can we account for it?

FIGURE 2 ABOUT HERE

To answer this question, we estimate three-level logit models with cross-level interactions (Table 1).⁵ Model 1 only includes individual-level determinants of European identity. Model 1 indicates that younger individuals, men and professionals are more likely than others in the sample to consider themselves European. Formal

education is also shown to have a positive effect, in line with previous research. Five additional years of education increase by .101 points the likelihood of an individual to self-identify as European. Since the variance of the effect of *years of education* is statistically significant at the country-year and country level, it is justified to assess the conditions that attenuate or enhance the effect of this key variable.

TABLE 1 ABOUT HERE

Model 2 adds determinants at level 2 and 3. All individual factors remain significant and retain their signs, including *years of education*, which has an equivalent coefficient. Regarding the main country-level factors of interest, we observe that the level-3 (cross-national) effect is opposite to their level-2 (longitudinal) effect. The populations in countries with higher levels of societal education and greater income inequality (level-3 variables) are less likely to feel European than those in other countries. Yet changes in societal education and income inequality (level-2 variables) are positively correlated to European identity. Since level-2 variables are less affected by the heterogeneity bias, they should receive special attention. The resultant observation is that increases in societal education foster self-identification as European.

Model 2 provides the first test of the two hypotheses presented in this study: that set forth in Welzel's 'cross-fertilization' approach, which postulates that higher *societal education* levels will reinforce the effect of *years of education*, and the hypothesis that comes out of our own approach, based on political psychology and sociological premises, which suggests that higher levels of and rapid growth in *societal education* will actually attenuate the effect of *years of education*. Model 2 is only consistent with our approach and H2. The interaction terms *years of education*mean societal education* and *years of education*change in societal education* are negative and significant. In end

result, countries undergoing relatively quick increases in societal education tend to have smaller education cleavages with respect to European self-identification.⁶

The attenuating influence of changes in societal education levels on the education cleavage could actually reflect changes in income inequality. To test this, Model 3 thus replicates Model 2 but includes interaction terms for *mean Gini index* and *changes in Gini index*. This final model (Model 3) again confirms that a rise in societal education works to narrow the education cleavage. *Years of education*changes in societal education* remains negative and significant. In other words, when we control for income inequality, we find that mean societal education attenuates the education cleavage. These findings indicate that in countries where the *societal education* level is both relatively high and fast-growing, the attitudinal divide between the highly educated and the less educated with respect to European identity is narrower than it is in other countries. Also important, in Model 3 *years of education*change in Gini index* is not positive and significant, indicating that countries undergoing faster increases in income inequality do not display deeper education cleavages. This result does not support the findings of Kuhn et al. (2016).⁷

We perform several sensitivity analyses (shown in the Technical Appendix). First, since the inclusion in our analysis of the member states that joined the EU between 2004 and 2007 may also affect the results, we replicate our main model considering only EU-15 and EU-12 countries (Models 1 and 2, Table A2 in the Appendix).⁸ Second, we replicate the results using another indicator of educational attainment not available in Eurobarometers: the percentage of population with completed tertiary education (Table A3).⁹ Third, since *years of education*changes in societal education* may capture the moderational impact of changes in the unemployment rate or the globalization index, we also add interaction terms for years of

education with these two latter variables (Table A4). Fourth, to address uniform time trends across countries we add an interaction term *years of education*year* (Table A5). In Table A3 the interaction *years of education*mean in societal education* is non-significant. Yet in all of these sensitivity analyses, *years of education* is positive and significant and the interaction *years of education*changes in societal education* remains negative and significant.

FIGURE 3 ABOUT HERE

In all of these sensitivity analyses, we conventionally distinguish the 55.2% of citizens who self-identify as European to any degree (1) from the remaining 44.8% who do not self-identify as Europeans to any degree (0). A large majority of those who self-identify as European (83.3%) select the option ‘[Nationality] and European’ and thus view it as a secondary identity. In a robustness check predicting the unconventional (9.2%) choice to self-identify mainly as European— i.e., as ‘European and [Nationality]’ or ‘European only’ –, *mean societal education*education* is negative and significant, but *change in societal education*education* is not (Table A6). This indicates that the role of *change in societal education* is concentrated in the largest group of self-identified Europeans who consider themselves to be ‘European and [nationality]’.

The evidence thus indicates that living in a country where societal education is quickly rising narrows the divide between highly educated and less educated citizens with respect to any form of European identification. How substantial is this moderational effect of changes in societal education? And second, which group is most affected by these contextual conditions? To clarify, Figure 3 depicts the predicted probability of European identification for varying *years of education* at different standardized values in the level-2 variable *changes in societal education*.¹⁰ Figure 3 makes clear that changes in societal education have a substantial conditional impact on

this self-identification and clarifies that if faster within changes in societal education attenuate the education cleavage, it is because this context has a particularly strong influence on attitudes of the less educated towards Europeanization. The estimated probability that a person who ended her formal education at age 13.7 (one standard deviation below the EU-28 mean) will self-identify as European is .354 if she lives in a country where societal education increases the least (two standard deviations below the mean) relative to the others in our study. However, that probability rises to .446 if her country is among those for which societal education levels increases the most (two standard deviations above the mean). From this, we may conclude that societal education growth substantially moderates the education cleavage in European identification, and it does so by increasing levels of European self-identification more among the less educated than among those with relatively high levels of educational attainment.

Discussion

The education cleavage in European self-identification constitutes one of the main conundrums faced by the Europeanization project. As long as the level of societal education is low and the tendency to self-identify as European remains stratified by education, with the less educated maintaining national or infra-national identifications, efforts at further supranational integration will continue to face a major, national public opinion hurdle. Elected officials will be skeptical of ceding further sovereignty to EU institutions if a large and concentrated sector of the population lacks a firm emotional attachment to the Europeanization project. A better understanding of this education cleavage is thus critical to the future of the EU. We contribute to this discussion with a

cross-national and longitudinal analysis of the determinants of the divide in European identity in EU-28 between 1992 and 2015. Our results yield three main findings.

First, the education cleavage in European identification is on average substantial and robust, but also cross-nationally and diachronically variable. Taking all country-years, the probability that any given individual will self-identify as European surpasses .70 among the highly educated, whereas it hovers around only .40 among the least educated. Education clearly marks a relevant divide with respect to European self-identification. This divide is almost universal among EU countries. Yet interestingly, this divide also varies significantly across countries and periods. It tends to be larger in Western Europe and Eastern Europe than in Nordic countries and also fluctuates among EU member states between 1992 and 2015. More specifically, it decreases in nine countries and increases in 11 other countries.

Second, contrary to the finding of Hakhverdian et al. (2014) that the education cleavage in Euroscepticism increases with level of income inequality, we found that the education cleavage with respect to an individual's choice to self-identify as European is not significantly larger in countries where income inequality increased the most.

Third, although changes in income inequality don't shape cross-national and longitudinal variation in this divide, it is related to another structural factor. Societal education proved in our study to be an important moderator of differences with respect to European self-identification across educational groups. Based on two indicators of collective educational attainment (average years of education and the percentage of the population that completed a higher education degree), countries experiencing the greatest increases in educational attainment display significantly narrower education cleavages than the other countries studied. That the attenuating factor with respect to the individual-level education effect is *changes in societal education*, and not (only) *mean*

societal education further supports the theory that societal education has a causal attenuating effect on the education divide in pro-European attitudes. This is because, contrary to *mean societal education*, *changes in societal education* is less likely to be affected by country-constant unobserved heterogeneity bias.

This finding is clearly inconsistent with the social cross-fertilization approach of Welzel (2013). At least with regard to pro-European sentiments, raising the societal education level by increasing the number of university graduates may well have increased homophily in this educational stratum, but it did not broaden this attitudinal gap between them and the less educated.

On the contrary, the evidence clearly supports the cross-attenuating approach presented in this study. Increases in societal education help *close* the education divide with respect to self-identification as European. This important finding suggests that a new socio-structural approach centered on educational modernization may cast new light on the formation of pro-European sentiments. We theorized above that increases in societal education may affect this education divide by means of two mechanisms: the stigmatization of the less educated and the discourse of mainstream media outlets. Our study does not test these two mechanisms, which is its main limitation. At the moment, we simply do not have the requisite reliable indicators for these mechanisms – stigmatization of the less educated members of a society, on the one hand, and Europhile positions in mainstream media, on the other – for all EU member states and all the time points.

Nevertheless, prior theoretical and empirical research makes these mechanisms highly plausible. According to the network mechanism, when average education rises especially quickly, individuals with relatively low levels of educational attainment face deeper stigmatization, which harms their self-concept and the intensity of their political

beliefs, making them more malleable to the discourse of more highly educated individuals. The less educated are then also more likely to encounter a mass-media discourse tailored to the more highly educated, a discourse that is both strongly pro-European and derisive of nationalist attitudes. Through these structural and discursive mechanisms, societal education can thus weaken the ensemble of practices and collective representations that sustain a national-only identity among the less educated and foster an environment that encourages the latter to adopt pro-European beliefs. Rapid improvements in the literature on stigmatization and mass media Europeanization may soon allow us to adjudicate between these two mechanisms.

The robust cross-attenuating effect of societal education on the individual-level attitudinal gap documented in this project also has implications for our understanding of value change modernization. Previous work on the topic has documented a substantial divide between the highly educated and the less educated with respect to their long-term normative orientations, either in terms of self-expression (Inglehart and Welzel, 2005) or emancipative (Welzel, 2013) values. Shifts in public discourses and collective representations caused by the expansion of education may also strengthen the commitment of less educated persons to emancipative values, thereby attenuating that other education divide as well. This suggests the need for further research and theorizing as to how societal education may amplify or attenuate other attitudinal cleavages, such as the education cleavage in social values. Such research would complement the main finding of this study, namely, that increases in societal education reduce the gap between highly educated individuals and those with lower levels of educational attainment with respect to the choice to self-identify as European.

Notes

¹ McLaren (2006: p. 47) provides, nevertheless, an exception.

² Welzel (2013) does not specifically explore the association between emancipative values and European identity. But in a bivariate analysis using the Integrated Values Survey, emancipative orientations and self-identification as European are positive related ($r=.116$, $p<.05$).

³ The wording of this question has remained stable between 1992 until 2012. Since Eurobarometer 80.1 (November 2013) it has been shortened to: ‘Do you see as...?’ with possible answers ‘[Nationality] only’, ‘[Nationality] and European’, ‘European and [Nationality]’, ‘European only’ or ‘none.’ We replicated the results without the Eurobarometers corresponding to 2013-2015 and the results remain stable (Table A5, Model 2).

⁴ We also reduce the computational burden by using the Laplacian approximation (Rodriguez, 2008: p. 354).

⁵ Intraclass correlation for an empty model indicates that 5.33% and 3.56% of the variance in the dependent variable occurs within country-years and countries, respectively. Both intraclass correlations are significantly different from zero.

⁶ Adding the cross-level interactions with *change in societal education* and *mean in societal education* reduces the country-year and country variance of *years of education* by 2.68% and 17.30%, respectively.

⁷ See also the working paper by Jacquier (2012), which reports a negative and significant interaction between individual education and the percentage of higher education graduates in the support for further European integration, although the finding is not substantially interpreted.

⁸ Due to the reduced number of countries in Models 1 and 2 in Table A2, they have been estimated with two-level models (individuals and country-years).

⁹ Missing values in the percentage population with tertiary education were interpolated.

¹⁰ The probabilities were estimated for retired women – the most common values in the nominal variables – and keeping all other continuous variables at the average values.

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Tables and Figures

Figure 1. Societal Education in EU-28 Countries, 1992-2015

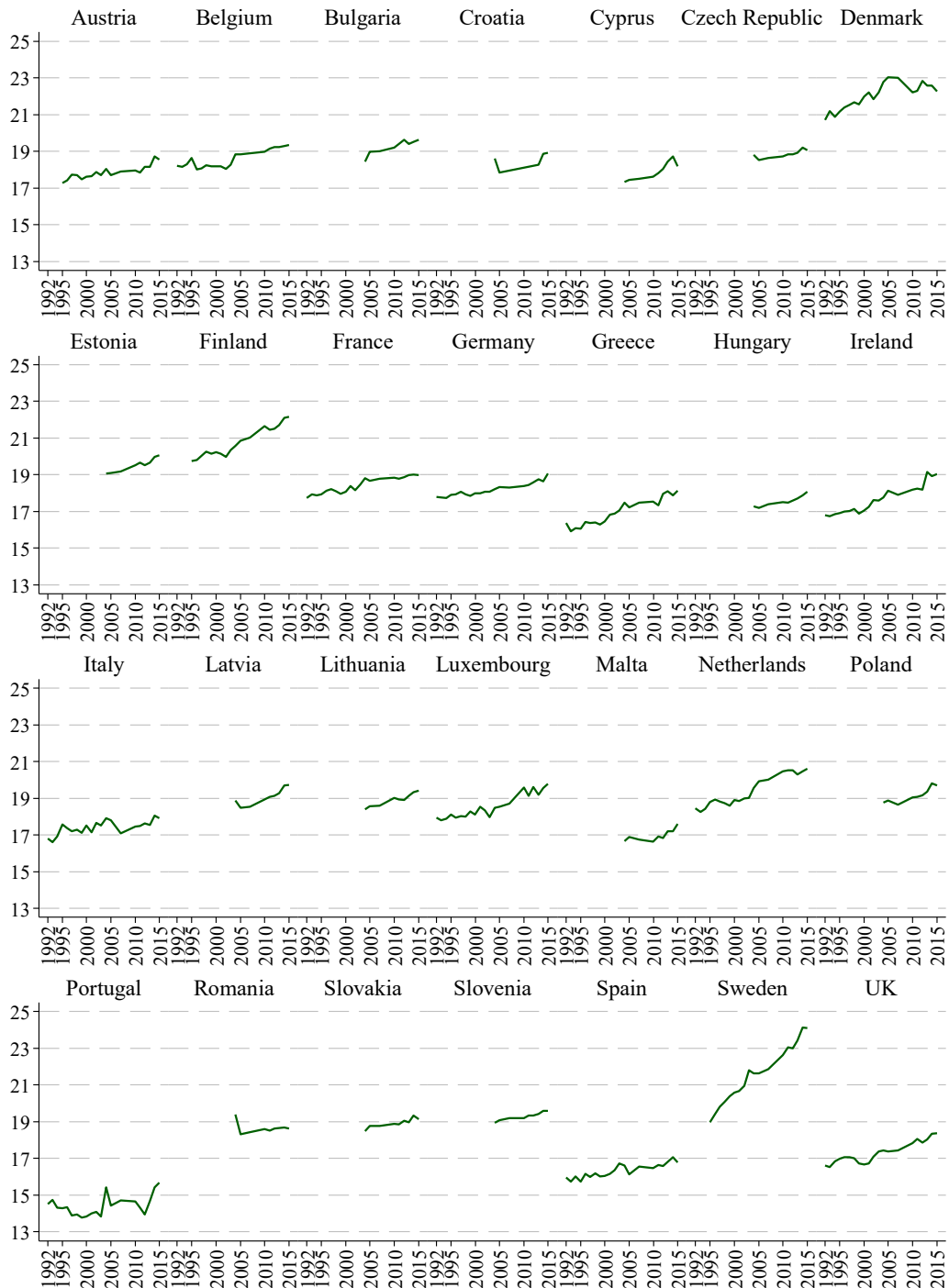
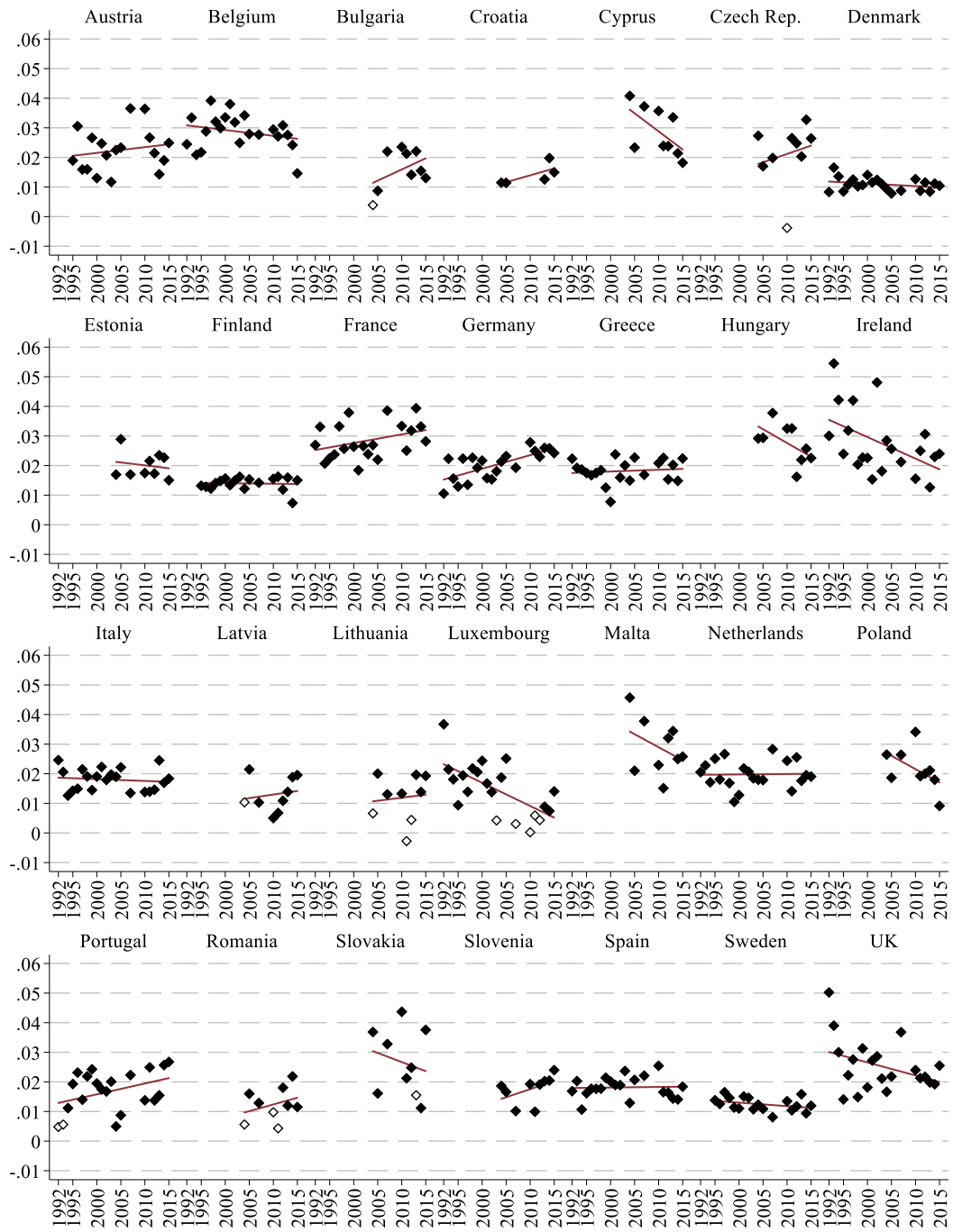


Figure 2. Marginal Effect of Education on European Identity, EU-28 1992-2015



Note: Estimated from 419 models controlling for age, gender and occupation. Hollow markers are not statistically significant.

Table 1. Multilevel Logit Models Predicting European Identity in EU-28, 1992-2015

	Model 1	Model 2	Model 3
<i>Level-3 factors</i>			
Mean societal education		-.161*** (-3.413)	-.161*** (-3.415)
Mean Gini index		-.055** (-2.758)	-.055** (-2.758)
<i>Level-2 factors</i>			
Change in societal education		.136*** (4.027)	.135*** (4.018)
Change in Gini index		.020* (2.277)	.020* (2.298)
Unemployment rate		-.014** (-3.279)	-.014** (-3.272)
Index of globalization		-.019* (-2.463)	-.019* (-2.465)
Year	.004* (2.140)	.001 (.287)	.001 (.284)
<i>Individual-level factors</i>			
Years of education	.085*** (2.847)	.086*** (22.740)	.086*** (23.904)
Age	-.008*** (-29.540)	-.008*** (-29.516)	-.008*** (-29.503)
Female	-.210*** (-33.366)	-.209*** (-33.342)	-.209*** (-33.330)
Student (ref. housewife)	.444*** (26.683)	.443*** (26.611)	.443*** (26.605)
Unemployed	-.135*** (-8.936)	-.135*** (-8.922)	-.135*** (-8.927)
Professional/Manager	.571*** (39.161)	.570*** (39.105)	.570*** (39.109)
Self-employed/employer	.176*** (11.295)	.176*** (11.260)	.176*** (11.259)
White collar	.231*** (18.363)	.231*** (18.322)	.231*** (18.322)
Manual worker	-.085*** (-6.373)	-.085*** (-6.392)	-.085*** (-6.393)
Retired	-.034** (-2.644)	-.035** (-2.696)	-.035** (-2.706)
<i>Cross-level interactions</i>			
Years of education * Mean societal education		-.005* (-2.198)	-.008** (-2.912)
Years of education * Change in societal education		-.006** (-3.053)	-.007*** (-3.319)
Years of education * Mean Gini index			-.002 (-1.776)
Years of education * Change in Gini index			.001 (1.677)
Constant	.243** (3.089)	.245*** (3.722)	.245*** (3.726)
<i>Random Effects – Level 3</i>			
Variance (Years of Education)	.0004081 (.0001264)	.0003384 (.0001083)	.0003027 (.0000977)
Variance (Constant)	.1633771	.1089899	.1089891

	(.0451574)	(.0304534)	(.0304508)
Random Effects – Level 2			
Variance (Years of Education)	.0003688 (.0000477)	.0003563 (.0000464)	.0003535 (.0000461)
Variance (Constant)	.0689865 (.0053078)	.0627226 (.0048622)	.0626145 (.0048539)
Observations/Country-years	524,457/419	524,457/419	524,457/419

Note: *t* statistics in parentheses (in the case of variance components, standard errors in parentheses); * $p < .05$, ** $p < .01$, *** $p < .001$

Figure 3. European identity by level of educational attainment at different levels of *change in societal education* (CSE)

