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## **Generational Change and Attitudes to Immigration**

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## **Generational Change and Attitudes to Immigration**

### **Abstract**

This paper examines the extent to which generational change is likely to be producing attitude change on the issue of immigration in Europe. Using multi-level modelling on seven rounds of the European Social Survey (2002-2014) and 16 European countries, we investigate the question of whether there are significant differences in anti-immigration sentiment between cohorts of Europeans, focusing on the roles that education and far-right mobilisation are likely to play in the process of generational change. The paper's findings indicate that it is the most educated amongst the youngest cohorts who appear to be persistently more positive about immigration, even controlling for aging processes but this combined effect of cohort and education diminishes for younger cohorts socialised in the context of a strong far-right anti-immigration presence. Thus, generational-change-induced attitude change in the realm of immigration attitudes may be occurring but this is likely to be dependent on individuals having adequate education skills to process the vast changes brought by immigration; in contexts where the far-right is likely to be mobilising anti-immigration sentiment, however, these education skills appear to have a more limited impact on attitudes to immigration.

Large-scale immigration is argued to be producing a substantial cultural divide in European democracies, which potentially threatens the foundations of European societies and political systems (e.g., McLaren 2012). The question of how attitudes to immigration change over time may therefore be amongst the most pressing ones facing European democracies. A key factor that is likely to be instrumental in producing such change is generational replacement; and yet the prospect of younger cohorts—who may be far more comfortable with immigration and ethnic diversity—eventually producing large-scale attitude change is one that has received limited scholarly attention. Despite the fact that much of the academic literature on the topic of attitudes to immigration points to age as a significant predictor of variation in anti-immigration sentiment—with younger cohorts appearing to be more positive about immigration—whether this trend, via generational replacement, is likely to have a lasting impact on societal perceptions of immigration over time is still unknown, as are the conditions in which such effects may or may not be taking place.

Using multi-level modelling on seven rounds of the European Social Survey (2002-2014) and 16 European countries, we show that there are significant differences in anti-immigration sentiment between birth cohorts, which lends support to the notion that younger cohorts, who are assumed here to be socialised in contexts of increasing diversity, are indeed likely to hold different attitudes to immigration than older cohorts. However, in several countries the younger cohorts appear to share similar attitudes to immigration with the oldest cohorts. Building on existing research on the susceptibility of youth to the appeals of the far-right, the paper investigates the potential role of far-right parties in countering socialisation effects, particularly amongst those with relatively lower levels of education. The findings indicate that successful mobilisation activities on the part of far-right parties may indeed be thwarting socialisation effects and thus, the role of generational replacement in producing long-lasting

changes in attitudes to immigration may be more limited in contexts where the far-right is relatively strong.

### **Age and Anti-Immigration Sentiment**

Research on attitudes to immigration tends to focus on a few key theories that are thought to be relevant to understanding such attitudes (Gorodzeisky et al., this special issue), including theories of symbolic or cultural threat (Sniderman, Hagendoon and Prior 2004), realistic group conflict (Meuleman et al., this special issue), and intergroup contact (Hewstone and Swart 2011). Very little research addresses the question of how and why attitudes to immigration might change over time (if at all). However, research on attitudes to immigration provides reason to expect that attitudes to immigration could change over time through generational replacement. Most studies of attitudes to immigration tend to include age at least as a control variable, and while some analyses show very limited effects of age (Crepaz and Damron 2008; Scheve and Slaughter 2001; Van Dalen and Henkens 2005; Weldon 2006), age commonly has a statistically significant effect on immigration attitudes. It has also been shown to be related more broadly to social attitudes. Where age has been significant, results are consistent: older individuals display less tolerance than younger individuals (Chandler and Tsai 2001; Citrin, Reingold and Green 1990; Coenders and Scheepers 1998, 2008; Espenshade and Calhoun 1993; Ford 2008, 2011; Heath and Tilley 2005; Heath and Richards, Ramos, Pereira and Vala, and Schlueter, Masso and Davidov, all in this special issue; Quillian 1995; Paterson 2018; Semyonov, Raijman and Gorodzeisky 2006).

Despite these relatively consistent findings, there is still considerable debate over whether these effects are a result of aging or generational change, and distinguishing between these can be difficult. If the effects reflect generational (or cohort) change, they have the potential

to produce significant cross-time change in values and attitudes related to immigration. In the few studies that attempt to examine cross-time change in public attitudes to immigration, the possibility that such changes might reflect generational change is generally omitted (Boomgaarden and Vliegenthart 2009; McLaren, Boomgaarden and Vliegenthart 2017; Schlueter and Davidov 2013; but see Coenders and Scheepers 1998; Gorodzeisky and Semyonov 2018; Wilkes and Corrigan-Brown 2011). The difficulty in identifying whether generational change might produce significant value or attitude change lies in model identification problems: age, period and birth cohort are logically linked, meaning it is difficult to gauge which factors are having an effect (Ford 2008, 619; Tilley 2002). Within the realm of studies focused on generational change, it is thus important to distinguish between age, period and cohort effects.

Age effects refer to potential differences between those in various age brackets within society, supposedly due to physiological changes, unequal social experience, and/or role or status changes (Yang and Land 2008, 298). The passing of years is professed to enable certain social aging processes and experiences that can impact individuals' attitudes. Marriage and having children are typical examples (see Tilley 2005).

Period effects denote variation in instances of time that impact all individuals simultaneously, regardless of age bracket. These effects may be a consequence of dramatic alterations (via war, economic depressions, natural disasters) in social, cultural, or physical climate (Yang 2008, 205).

Cohort effects ascribe variations between groups of individuals who have a shared experience of an initial event, usually birth, due to proximity in years (Glenn 2003). The significance of

birth cohorts is proposed to stem from the fact that political values are moulded early in life, particularly during late adolescence and early adulthood (Alwin and Krosnick 1991). The cohort succession model of attitudinal change proposes that attitudes evolve due to compositional differences across cohorts (Davis 1975; Smith 1985). The political generations model purports that values are shaped by the unique political and social environment within which each cohort comes of age (Mannheim 1952). Economic circumstance—whether prosperity or poverty reigns—is perhaps the most important example discussed in the literature.

As noted above, a limited number of studies find age to be insignificant in determining attitudes towards immigrants and immigration, but where age has been significant, older individuals display less tolerance than younger individuals. A key question that follows on from these findings is: do people become less tolerant as they age or is generational replacement creating an increasingly tolerant citizenry?

Sears (1981) outlines four of the most common hypotheses that have been proposed to explain individuals' attitudes varying with age or life stage. 'Lifelong Openness' dismisses age as relevant, postulating that attitudes are unlikely to change at any stage of the life cycle. The 'Life-Cycle' argument proposes that certain stages of the life-cycle create a susceptibility to certain types of attitudes. Supposed radicalism in youth and conservatism with age is a common example. Evidence from cohort studies, however, does not support the life-cycle view (Abramson 1975; Glenn 1974). Indeed Sears (1981) notes that in cohort studies tracking a variety of attitudes (racial prejudice, political conservatism, social conservatism etc.) scholars have 'almost invariably found generational rather than life-cycle effects'. Research on postmaterialist values—which are thought to be affiliated with greater tolerance—also

indicates powerful generational effects (Inglehart 1977, 1997; but see Clarke and Dutt 1991; Davis, Dowley and Silver 1999).

The third and fourth hypotheses outlined by Sears better fit the evidence from cohort studies. The ‘Impressionable Years’, or formative years, view posits that in late adolescence and early adulthood, individuals are particularly vulnerable to changes in attitudes if sufficient pressure exists. In other stages of the life-cycle, individuals are far more resistant to change as their attitudes and values have largely solidified. The ‘Persistence’ position runs parallel to that of the Impressionable Years, differing only in terms of which stage of the life-cycle attitudinal positions are crystallised. For Persistence advocates it is attitudes formed during early, preadult socialisation that calcify and are resistant to change.

Within the context of immigration attitudes, it has been argued that large-scale immigration in Europe from other parts of Europe (via the EU) and outside of Europe from 1945 onwards (see, for instance, Castles, de Haas and Miller 2013 for an overview of these trends) has meant that younger cohorts have been socialised in a climate where the presence of ‘Others’, in this case migrants, is commonplace when compared to previous cohorts (Ford 2008). This increased presence has facilitated intergroup contact and the prejudice-reducing possibilities this brings (Allport 1954; Green et al., this special issue; McLaren 2003; Pettigrew and Tropp 2006) on an unprecedented scale. Thus, the expectation is that younger cohorts will retain relatively more positive attitudes to immigrants and immigration because of these socialisation effects and so Hypothesis 1 is:

*H1: Younger cohorts will be more positive about immigrants and immigration than older cohorts.*

## **The Role of the Far-Right**

It is expected that all things being equal, younger cohorts in European countries should be more positive about immigration because of their greater exposure to diversity in their formative years as a normal part of daily life. However, the messages young people receive about immigration-related diversity are likely to be crucial. Seminal research on political values and partisanship indicates that early socialisation is critical in how individuals come to hold particular values (Jennings and Niemi 1978). As noted above, for instance, the Impressionable Years approach contends that late adolescence and early adulthood are times when individuals are particularly vulnerable to changes in attitudes. In addition to families and schools having an impact on attitudes during these years, it is likely that political elites may have some influence in this process.

Existing research has shown that youth are particularly susceptible to the messages of far-right anti-immigration parties (Arzheimer and Carter 2006; Betz 1994; Lucassen and Lubbers 2012; Minkenberg and Pytlas 2013; Oesch and Rennwald 2010; Rydgren 2002). In fact, in many countries, far-right parties specifically target young voters. Schmuck and Matthes (2015), for instance, discuss the attempts of the anti-immigration Freedom Party of Austria (FPÖ) to reach out to young adults with anti-immigrant rap songs, anti-Turkish comic-style booklets (see also Wodak and Forchtner 2014) and an intensive mobilisation campaign via Facebook; moreover, their study provides strong confirmation that youth are susceptible to these messages. Within a cross-national study, we would thus expect that where far-right parties are more prominent, younger cohorts may be amongst the most negative about immigration, as far-right parties successfully mobilise anti-immigration sentiments amongst these cohorts. Thus, Hypothesis 2 is:

*H2: Prominent far-right parties present during a cohort's formative years will moderate other cohort effects; where the far-right is more prominent, younger cohorts will be more like older cohorts; where the far-right is less prominent, younger cohorts will be more positive about immigration than older cohorts.*

Education is likely to be central to this process of far-right mobilisation of anti-immigration sentiment amongst younger cohorts. Education itself has been shown to have powerful effects on attitudes to immigration. The reasons for the influential effect of education on immigration attitudes, as well as prejudice and other attitudes such as political tolerance, are still not entirely clear but explanations for the effects of education revolve around (a) cognitive development and (b) exposure to diversity of ideas (see Sniderman, Brody and Kuklinski 1984; Espenshade and Calhoun 1993; Coenders and Scheepers 2003; Vogt 1997). Both of these processes are likely to impact how individuals receive far-right messages (see also Wodak and Forchtner 2014).

From a cognitive development perspective, it is possible that the slogans and propositions put forth by the far-right (e.g., stop immigration, send immigrants home) may be seen as overly simplistic to those with more developed cognitive and information processing skills. Perhaps more importantly from a generational change argument, education is also thought to provide greater exposure to diversity—diversity of people, i.e., from different ethnic and cultural backgrounds—and diversity of ideas, both from fellow students and teachers but also from the ideas discussed in course readings and seminar deliberations. The contact hypothesis would point to the conclusion that on balance, such exposure would lead most individuals to be more comfortable with, and positive about, diversity (see the introduction to this Special Issue—Heath et al. forthcoming). Thus, we expect that the youngest cohorts in European

countries, who we assume to be growing up with greater diversity than the oldest cohorts did, and particularly those who have stayed in education longer, will have the most powerful cognitive ability to counter far-right mobilisation attempts. Specifically, we hypothesise that:

*H3a: Individuals amongst the youngest cohorts, with the highest education levels, and living in countries where there is a strong far-right party during the cohort's formative years will be at least as positive about immigration as those living in contexts where there is not a strong far-right party, i.e, education will counter the potential effects of far-right mobilisation of anti-immigration sentiment.*

*H3b: Those with lower education skills and living in contexts with strong far-right mobilisation will be the least positive about immigration; this effect is likely to be strongest amongst youngest cohorts, given their greater susceptibility to far-right messages.*

## **Data**

For our analyses of cohort differences in attitudes to immigration, we use seven rounds of the European Social Survey (2002-2014) and the 16 European countries in the ESS in which the survey was conducted in every round: Belgium, Denmark, Finland, France, Germany, Hungary, Ireland, Netherlands, Norway, Poland, Portugal, Slovenia, Spain, Sweden, Switzerland and the UK. Immigration attitudes are measured using three items that appear in all rounds of the ESS:

- Would you say it is generally bad or good for [country]'s economy that people come to live here from other countries? Please use this card. Bad for the economy (0), Good for the economy (10).
- And, using this card, would you say that [country]'s cultural life is generally undermined or enriched by people coming to live here from other countries? Cultural life undermined (0), Cultural life enriched (10).

- Is [country] made a worse or a better place to live by people coming to live here from other countries? Please use this card. Worse place (0), Better place (10).

These items were combined into a single index, with values ranging from 0 (most negative about immigration) to 10 (most positive about immigration). Inter-item correlations (Pearson's  $r$ ) were all greater than 0.60 and the items load onto a single factor in a Principal Components analysis. Note that these items were chosen because they are available across all rounds of the ESS and because they appear to capture the main dimensions of threat related to immigration—concerns over economics and identity (Sniderman, Hagendoorn and Prior 2004), plus more general worries about the impact of immigration on the country.<sup>1</sup>

At the individual level, age is converted from the respondent's birth year, and the latter is also used to create birth cohorts that span 10-year periods. Education is measured on a 5-point scale indicating the respondent's reported highest education completed, ranging from less than lower secondary education (1) to Tertiary education completed (5).<sup>2</sup> Individual-level control variables include: whether the respondent considers herself to be from a minority group (based on the question, 'Do you belong to a minority ethnic group in [country]?');<sup>3</sup>

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<sup>1</sup> Note that the survey items used here refer to immigrants in general terms and not to immigrants from particular countries, and so we are unable to distinguish the potential effects of concern about immigration from specific places (see Ford 2011; Ford and Mellon in this special issue; Sniderman, Hagendoorn and Prior 2004),

<sup>2</sup> Note that the highest education completed scale changed to a 1-7 scale in the seventh round of the ESS. We have reduced this scale to 1-5 to match the ESS1-6 coding of this variable.

<sup>3</sup> Those who are first or second immigrants (determined by a series of questions in the ESS about citizenship status) are omitted from the analysis. Though these individuals are an important part of the story of how attitudes to immigration may be changing over time (i.e., the immigrants themselves become part of the mass public and thus have an overall impact on levels of anti-immigration sentiment), our concern here is with

gender; whether the individual is unemployed; and whether she finds it difficult to live on her present income (see Quillian 1995; Gorodzeisky and Semyonov 2016).

To model the potential effect of far-right mobilisation during the respondents' formative years, we estimate the average percentage of the popular vote for a far-right anti-immigration party for the period when cohorts were just participating in their first elections, specifically, when cohorts are between the ages of 20-29. For instance, for the cohort born between 1980-89, we use the average per cent of the popular vote for an anti-immigration party in the country in the years 2000-2009 as an indicator of the extent of far-right mobilisation; this information was taken from the Parties and Elections in Europe website (<http://www.parties-and-elections.eu/>, last accessed 23 August 2017) and a list of parties that fit the description of being far-right anti-immigration parties is available in Table A of the Online Supplemental Material.

Unfortunately, due to lack of consistent cross-national data on ethnic diversity at the time that many of the cohorts included in this study were coming of age, we are unable to estimate the impact of these cross-national differences.<sup>4</sup> After first investigating potential cohort effects using dummy variables below, subsequent models incorporate a cohort trend variable as a proxy for factors that are likely to make cohorts different from one another (besides far-right

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whether there is likely to be attitude change resulting from cohort change amongst the 'native' population – defined here as those with family ties to each country going beyond one generation. Removing these individuals resulted in a loss of 13% of observations.

<sup>4</sup> Data on net migration are available from the OECD going back to the 1960s, but net migration fails to capture the extent of cumulative over-time diversity in the same sense that statistics such as the percentage foreign or percentage of immigrant-origin minorities in the population would.

mobilisation during their formative years, which is included in our model), with our expectation being that increased socialisation in contexts of diversity will, on average, make younger cohorts systematically more positive about immigration than older cohorts. That is, the trend variable itself is intended to capture this potential increasing exposure to diversity during formative years. The trend variable can also be used to model what are effectively non-linear interactive effects of cohort. We further control for the possibility that cohort effects vary systematically across countries in ways that we have not otherwise been able to model using a random effects model.

### **Analysis and Findings**

To investigate potential cohort effects, rather than using indicators other than age (e.g., marriage, having children) as proxies for the aging process, we instead rely on multi-level modelling techniques, in which cohort variables are measured at different levels than age, to investigate the impact of these variables simultaneously. Existing research on attitudes to immigration generally emphasises period effects—particularly the level of diversity and economic circumstances at the time of the survey (see Quillian 1995; Semyonov, Raijman and Gorodzeisky 2004, 2008; Scheepers, Gijsberts and Coenders 2002). Our approach to modelling, therefore, must consider whether to try to model these effects as well as those outlined above. We begin by estimating variance components in a null hierarchical cross-classified model of attitudes to immigration that includes individual-level (Level 1), country-cohort (Level 2 country-cohort), country-year (Level 2 period), and country-level (Level 3) effects (see Reither et al. 2015; Wilkes and Corrigan-Brown 2011). In this first model, individuals (Level 1) are nested within birth cohorts (within countries) and within country-years; country-cohort and country-year are cross-classified Level 2 units of analysis since a particular birth cohort could appear in multiple country-years. Since it is possible that

clustering at the country level will still occur, we include country as a Level 3 unit of analysis in this first model (see Schmidt-Catran and Fairbrother 2015). Variance components for this three-level cross-classified null model are as shown in Table 1 (Model A). Very little of the variance in this model is at the country-year level (period effect), leading to the conclusion that it might be possible to rely on a more simplified model by removing the country-year (period effect) component of it. Moreover, when we investigate the variance components of key potential country-year (period) variables—percent foreign born and unemployment levels in the country-years of the survey (both taken from the OECD)—over the timespan of ESS1-7, it appears that the vast majority (93.0 per cent) of the variance in one of these variables (percent foreign born in the country-year of the survey) is country-level variance rather than country-year variance (Table 1, Model B). Though there is a substantial amount of variance across country-years for unemployment levels (Table 1, Model C), when it was included in our model as a period effect this variable was statistically insignificant. (Models containing the period effects are included in the Online Supplemental Materials.) In contrast, when we examine the variance components for our key country-cohort level variable—the percentage vote for a far-right anti-immigration party in a cohort’s formative years (as outlined above)—the vast majority of the variance in this variable is at the country-cohort level rather than the country level (Table 1, Model D).<sup>5</sup>

[Table 1 about here]

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<sup>5</sup> This can be contrasted with a variance components analysis of percentage vote for a far-right party in the country-year (a potential period variable), where 75.9% of the variance in this variable is at the country level while only 24.1% is at the country-year level.

Based on these variance components analyses, we next estimate variance components of positive attitudes to immigration with the country-year (period) effect omitted. This is a more simplified 3-level model than the cross-classified model, with the individual at Level 1, the country-cohort at Level 2, and country at Level 3 (see Schmidt-Catran and Fairbrother 2015 on the topic of estimating a 2-level versus 3-level model in this instance). As shown in Table 1 (Model E), the majority of the variance in this null model remains at the individual level, with 6.4 per cent at the country level. The country-cohort variance is only 2.1 per cent of total variance in positive attitudes to immigration, but this is statistically significant (all of the variance components in all models shown in Table 1 are statistically significant). Given the short timespan of ESS1-7, finding relatively limited cohort effects is not surprising. The fact that there is some variance across country-cohorts even in this short timeframe and when simultaneously estimating country-level effects would seem to indicate that we may already be seeing some cohort differences in attitudes to immigration which are likely to be more apparent as longer panel data sets become available.

We next add independent variables to the null model estimated in Table 1 Model E (in which the period effect is omitted). (Note that the Online Supplemental Materials provide the results that included the period effect and the conclusions drawn from these results are virtually identical to those outlined below.) Model 1 of Table 2 estimates cohort fixed effects using dummy variables. All of the cohort dummy variables achieve statistical significance at the  $p \leq 0.001$  level and all are positive, with the size of the coefficients increasing, at least between the 1940-1979 birth cohorts. This would seem to indicate that each cohort appears to be increasingly more positive about immigration, as would be expected according to the socialisation hypothesis. The sizes of these coefficients decline somewhat for the birth cohorts born after 1979. The coefficients indicate that for the most part, these cohorts are still

more positive about immigration than older cohorts but that the potential effect of cohort change in attitudes may be slowing down, or may not be operating in all countries. Visual inspection of cross-time trends in attitudes to immigration for the countries included in the analysis indicates that in some countries (e.g., Denmark, Norway, Finland, Sweden and Switzerland), younger cohorts are fairly close to older cohorts in terms of their (relatively negative) attitudes to immigration (Figures provided in the Online Supplemental Material). These are the first indications that the process of attitude change across cohorts may not hold in some contexts.

[Table 2 about here]

Because potential cohort effects may vary systematically across countries, it is important to be able to control for country-cohort random effects. Attempting to do this while also using dummy variables for cohorts creates degrees of freedom and identification difficulties, especially when further effects are added to the model, including two-way and three-way interactive effects, and as noted above, data that capture the extent of diversity during a cohort's formative years were unavailable, particularly for our older cohorts, who are fairly crucial to the analysis. As also outlined earlier, we therefore investigate our random effects models using a single 1-7 cohort scale. Given that cohorts are not associated with monotonic increases in positive attitudes to immigration in all countries, this coding decision may appear to be problematic. However, as mentioned above, our subsequent models specifically control for this differential effect via a random effect; in addition, the interactive effects models investigated below allow for the specification of a non-linear relationship between cohort and immigration attitudes. Model 2 of Table 2 substitutes this 1-7 cohort variable for the cohort dummy variables; Model 3 adds the country-cohort random effect, which is statistically

significant (and improves the Level 2 portion of the model fit compared to Model 2). Subsequent models will, therefore, include this random effect.<sup>6</sup> In Models 2 and 3, the 1-7 cohort scale is statistically significant and positive, indicating that even taking into account the difference in the effect of cohort across countries (via the random effect), on average across the 16 countries included in our analysis, younger cohorts tend to be more positive about immigration than older cohorts (recall that cohort 1 is the oldest cohort and cohort 7 is the youngest).

Model 1 of Table 3 adds control variables to Model 3 of Table 1, excluding age. Even controlling for individual-level education, being unemployed, as well as contextual variables, the cohort variable still achieves statistical significance, indicating that on average, younger cohorts (scored 7 on the cohort scale) are more positive about immigration than older cohorts. To reiterate, this is also taking into account potential varying effects of cohort across countries. However, the size of the cohort variable is reduced, as is the significance level, while the explained variance in the country-cohort portion of the model increases. This is largely a result of adding individual-level education to the model, with differences in education levels likely to be explaining some of the differences in attitudes to immigration across cohorts. Model 1 of Table 3 also includes the level of far-right mobilisation during the respondent's formative years, which will be used in later models to investigate interactive

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<sup>6</sup>Also of relevance is that the some of the variance component values actually increase after adding the cohort fixed and random effects. This is likely to indicate that the null model failed to reflect complex relationships that are better reflected in the subsequent model, in this case involving variable country-cohort characteristics; see Neundorff and Soroka (2017) for an age-cohort-period example of this and <http://www.bristol.ac.uk/cmm/learning/videos/random-intercepts.html>, last accessed 14 June 2018, for more general information.

effects. Model 1 of Table 3 further includes contextual control variables as country-level fixed effects (average percent foreign and unemployment levels between 2002-2014) but neither of these achieves statistical significance.

[Table 3 about here]

Model 2 of Table 3 adds individual-level age. Once age is introduced into the equation, the coefficient for the cohort variable no longer achieves statistical significance, indicating that the differences between cohorts may simply be a matter of aging, i.e., as current younger cohorts age, they may also become more negative about immigration. We should note that in our previous analyses (not shown here but provided in Table B in our Online Supplemental Material, where cohort fixed effects were investigated using dummy variables, the coefficients for the youngest two cohorts (those born after 1979) no longer achieved statistical significance after age was added to the equation, indicating that they did not appear to be significantly different than the oldest cohort in terms of their attitudes to immigration. On the other hand, cohort effects for all dummy variables for cohorts born between 1940-69 indicated that these cohorts were still significantly more positive about immigration than the oldest cohort, at the  $p \leq 0.001$  level, and the 1970-79 cohort is significantly more positive than the oldest cohort, at the  $p \leq 0.05$  level. That is, even taking into account the person's age, being part of a cohort born between 1940-79 appeared to have some bearing on the individual's perceptions of immigration. Thus, these cohorts appeared to be persistently different from the oldest cohort (again, models shown in the Online Supplemental Material, Table B).

Hypothesis 2 stipulated that the effect of being in different cohorts, as captured with the 1-7 cohort variable, was likely to be moderated by far-right mobilisation during formative years. Model 1 of Table 4 investigates this proposition. The coefficient for the far-right mobilisation-cohort interactive term is not statistically significant, indicating that different levels of far-right mobilisation may not necessarily be impacting entire cohorts differently. That is, Hypothesis 2 is not supported by the evidence.<sup>7</sup>

[Table 4 about here]

Hypothesis 3 postulated that the impact of the far-right on different cohorts would be moderated by education—that it would be those with lower levels of education who would be particularly vulnerable to the mobilising messages of the far-right. Model 2 of Table 4 investigates this possibility and indicates that almost all interactive effects included in the model achieve statistical significance. To help interpret the three-way interactive effect, we provide a stylised illustration of the effects (see Figure 1), in which values of the three variables in the interactions (cohort, far-right mobilisation during formative years, and education) are varied while all other variables are held constant at their means. (Note that the figure does not show the hypothetical situation of an individual in cohort 1 who lives in a context in which there is strong anti-immigration far-right mobilisation because none of the first cohorts actually fit this description.) The illustration points to a few key conclusions about the results. First, amongst those with the lowest levels of education living in contexts with limited far-right presence, those in cohorts 1 and 7 appear to be almost identical in their attitudes to immigration. That is, cohort itself does not seem to matter in these cases.

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<sup>7</sup> We include a random effect for the interactive effect in this model and for the three-way interaction in Model 2 of Table 3 (see Heisig and Schaeffer 2018).

Amongst the least educated in cohort 7 who do live in a context in which the far-right is relatively powerful, attitudes to immigration are slightly more negative, as predicted in Hypothesis 3.

[Figure 1 about here]

Larger differences are found between older and younger cohorts with higher levels of education. The most positive attitudes to immigration are amongst those with the highest levels of education living in places where there is not a strong far-right presence. Figure 1 and the interactive effects shown in Table 4 also indicate some cohort differences above and beyond the effects of education and far-right mobilisation, with the youngest cohort (cohort 7) being more positive about immigration than the oldest cohort with equally high levels of education (again, where the far-right was not a powerful presence during formative years). Though the size of difference may seem small, it is important to recall the high level of difficulty of detecting any differences between cohorts with individual-level age in the model, along with the other control variables. It is, of course, difficult to state definitively that the difference between cohorts 1 and 7 amongst the most educated is the result of increased exposure to diversity during the formative years of the youngest cohorts as we were unable to measure this, but the results provide some indication that the youngest cohorts are somewhat different in their attitudes to immigration, taking into account a range of other factors that may cause this difference (e.g., aging processes and education levels).<sup>8</sup>

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<sup>8</sup> The authors have also conducted a separate analysis of the case of the UK, in which the far-right has been relatively more limited, and for which we are able to obtain indicators of levels of diversity for all of the cohorts, and these results indicate that higher levels of diversity during the formative years of a cohort are

The final bar in Figure 1, however, illustrates the potential influence of the far-right in mobilising anti-immigration sentiment in the youngest cohort. Namely, in these particular contexts, the normally powerful positive role of education in predicting anti-immigration sentiment appears to be reduced substantially. The better educated in these cohorts and contexts are somewhat more positive about immigration than their less educated counterparts (compare the third bar to the final bar) but this difference is surprisingly small. These findings mirror those of Schmuck and Matthes (2015) in their analysis of the influence of far-right posters on youth in Austria, which indicate that even the better educated amongst the younger cohorts tend to be susceptible to the symbolic slogans and images of the far-right. That is, these ideas may be influencing even the better educated amongst the youngest cohort.<sup>9</sup>

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associated with more positive attitudes to immigration, controlling for age, education, and the other controls discussed in this paper (references omitted to maintain anonymity).

<sup>9</sup> As a robustness check, we examined the relationship between residuals and a potentially important omitted independent variable, expenditure on social protection (available from Eurostat), which has been shown to have an impact on attitudes to immigration (Crepaz and Damron 2008). Social protection expenditure appears to be related the residual values for attitudes to immigration, and so we have re-run Model 2 of Table 4 with this variable included in the model and report these results in Table C in the Online Supplemental Materials. We have also rerun Model 2 of Table 4 without two countries that have particularly high levels of social expenditure and appeared to be outliers when examining residual values (Sweden and Finland) and show the results of this analysis in Table D in the Online Supplemental Materials. The coefficients from these analyses are relatively similar to those discussed above and the conclusions drawn from these analyses would be the same as those drawn in the text of the paper.

In addition, it may be contended that level of contemporaneous far-right mobilisation is important, e.g., far-right mobilisation at the time of the survey, and that our argument here implies that a more appropriate interactive effect to investigate is between individual-level age and contemporaneous far-right mobilisation. We

## Conclusion

In a time when immigration is having significant lasting effects on European societies and will likely continue to do so for the foreseeable future, it is important to consider whether it will also continue to be one of the most divisive topics facing these countries, or whether—much like Inglehart’s vision of a postmaterial society—we are moving towards increasing levels of tolerance of immigrant-related diversity. Not surprisingly, a simple answer is not forthcoming. The findings here suggest that attitude change may be happening, but the impact of political elites on the process of generational change may be a cause for concern, as it seems that powerful anti-immigration far-right parties may be capable of influencing the attitudes of young people, including those with low and high levels of education, in a way that is likely to be counter to the maintenance of peace and stability in the midst of diversity. Indeed, it appears that in contexts where the far-right has been strongest during the formative years, the youngest cohorts are the most negative about immigration, with education limiting this effect to a relatively small extent.

In the contexts in which the far-right is likely to have been less influential during the formative years of the youngest cohorts, it does appear that these youngest cohorts are more

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have added this possibility to a hierarchical cross-classified model, using the level of support for a far-right, anti-immigration party in the general election most immediately prior to the fielding of the respective ESS (thus introducing far-right mobilisation as both a period and cohort effect), and these results are shown in Table E of the Online Supplemental Materials. In this case, the three-way interactive effect between age, education and contemporaneous far-right mobilisation barely achieves statistical significance, and the cohort-education-far-right mobilisation in the formative years interaction still holds. That is, cohort still appears to be relevant above and beyond individual-level age and any contemporaneous far-right mobilisation effects.

positive about immigration, especially for those with higher levels of education. That is, controlling for education as well as individual-level age, there appears to be a cohort effect, which we contend is likely to be a result of the increased socialisation in a context of diversity for these cohorts.

In short, it appears that if European societies and leaders wish to avoid extraordinarily divisive political events that have been prompted by anti-immigration sentiment they will need to understand how the mobilising effects of the far-right can be countered. Education may help limit this mobilising effect, but it appears that this may only have a minor impact. In addition, therefore, these other political elites may need to invest in learning how they might win the battle to frame immigration amongst the young cohorts who are facing high levels of diversity and being potentially swayed in their formative years by the arguments of far-right parties. Otherwise, divisions over issues like immigration are likely to continue, especially to the extent that they can be successfully mobilised by influential anti-immigration elites.

For the group of countries in which younger cohorts have not faced the potentially mobilising effect of far-right rhetoric to the same extent, our results point to a potential for increasingly positive attitudes to immigration via cohort replacement, particularly amongst the better educated. These results highlight the important role of education in continuing to counter-act strong anti-immigration sentiment in contexts that are diverse and will continue to be diverse, as immigrant-origin minorities and their descendants are now permanent parts of these societies.

The findings presented here point to several avenues for future research. First and foremost, as more data which allow us to investigate potential trends in attitudes to immigration become available, cohort differences clearly need careful monitoring. Updated single country studies are also likely to be instructive in understanding these trends and particularly how they are playing out in recent years in differing contexts (see Coenders and Scheepers 1998). Our conclusion has alluded to the potential role of political elites who are not in the far-right anti-immigration parties to alter the framing of immigration especially for younger cohorts, but the extent to which this is possible clearly requires further investigation, as does the potential role of other types of elites who might be more influential amongst the younger cohorts. It is unclear as to how globalised modern democracies can continue to function effectively without understanding how to better equip citizens with the skills necessary to process the vast array of ideas, information, and messages about immigration (and other topics) that present themselves on a regular basis, and future studies which attempt to do just that are clearly required.

## References

- Abramson, Paul. R. 1975. *Generational Change in American Politics*. Lexington, MA: D. C. Heath.
- Allport, Gordon. W. 1954. *The Nature of Prejudice*. Reading, MA: Addison-Wesley.
- Alwin, Duane. F., and Krosnick, Jon. A. 1991. "Aging, cohort, and the stability of socio-political orientations over the life span." *American Journal of Sociology* 97 (1): 169-195.
- Arzheimer, Kai and Carter, Elisabeth. 2006. "Political opportunity structures and right-wing extremist party success.", *European Journal of Political Research* 45 (3): 419-443.
- Betz, Hans-Georg. 1994. *Radical Right-Wing Populism in Western Europe*. London: Macmillan.
- Blinder, Scott. 2015. "Imagined Immigration: The Impact of Different Meaning's of 'Immigrants' in Public Opinion and Policy Debates in Britain." *Political Studies* 63 (1): 80-100.
- Boomgaarden, Hajo. G., and Vliegenthart, Rens. 2009. "How news content influences anti-immigration attitudes: Germany, 1993–2005." *European Journal of Political Research* 48 (4): 516-542.
- Castles, Stephen., de Haas, Hein. And Miller, Mark. 2013. *The Age of Migration: International Population Movements in the Modern World*, 5<sup>th</sup> ed. Houndmills: Palgrave Macmillan.
- Citrin, Jack., Reingold, Beth., and Green, Donald. P. 1990. "American Identity and the Politics of Ethnic Change." *The Journal of Politics* 52 (4): 1124-1154.
- Clarke, Harold. D. and Nitish, Dutt. 1991. "Measuring Value Change in Western Industrialized Societies: The Impact of Unemployment." *American Political Science Review* 85 (3): 905-920.

- Coenders, Marcel and Scheepers, Peer. 1998. "Support for Ethnic Discrimination in the Netherlands 1979-1993: Effects of Period, Cohort, and Individual Characteristics." *European Sociological Review*, 14 (4): 405-422.
- Coenders, Marcel and Scheepers, Peer. 2003. "The effect of education on nationalism and ethnic exclusionism: an international comparison." *Political Psychology* 24 (2): 313-43.
- Coenders, Marcel and Scheepers, Peer. 2008 "Changes in Resistance to the Social Integration of Foreigners in Germany 1980-2000: Individual and Contextual Determinants." *Journal of Ethnic and Migration Studies* 34 (1): 1-26.
- Crepaz, Markus. M. L., and Damron, Regan. 2008. "Constructing Tolerance: How the Welfare State Shapes Attitudes About Immigrants." *Comparative Political Studies* 42 (3): 437-63.
- Davis, James. A. (1975) "Communism, conformity, cohorts and categories: American tolerance in 1954 and 1972-3." *American Journal of Sociology* 81 (3): 491-513.
- Davis, Darren. W., Dowley, Kathleen. M., and Silver, Brian. D. 1999. "Postmaterialism in world societies: Is it really a value dimension?" *American Journal of Political Science* 43 (3): 935-962.
- Espenshade, Thomas. J., and Calhoun, Charles. A. 1993. "An Analysis of Public Opinion toward Undocumented Immigration." *Population Research and Policy Review* 12 (3): 189-224.
- Firebaugh, Glenn. 1989. "Methods for Estimating Cohort Replacement Effects" *Sociological Methodology* 19: 243-262.
- Ford, Robert. 2008. "Is racial prejudice declining in Britain?" *British Journal of Sociology* 59 (4): 609-636.
- Ford, Robert. 2011. "Acceptable and Unacceptable Immigrants: How Opposition to Immigration in Britain is Affected by Migrants' Region of Origin." *Journal of Ethnic and Migration Studies* 37 (7): 1017-1037.

- Ford, Robert, and Jonathan Mellon. 2018. "The Skills Premium and the Ethnic Premium: A Cross-National Experiment on European Attitudes to Immigrants." *Journal of Ethnic and Migration Studies*, this issue.
- Glenn, Norval. D. 1974. "Aging and Conservatism.", *The Annals of the American Academy of Political and Social Science* 415 (1): 176-186.
- Glenn, Norval. D. 2003. "Distinguishing Age, Period, and Cohort Effects." in *Handbook of the Life Course*, edited by J. T. Mortimer and M. J. Shanahan, 465-76. New York: Kluwer Academic/Plenum.
- Gorodzeisky, Anastasia and Semyonov, Moshe. 2016. "Not only Competitive Threat but also Racial Prejudice: Sources of Anti-Immigrant Attitudes in European Societies.", *International Journal of Public Opinion Research* 28 (3): 331-354. doi: 10.1093/ijpor/edv024
- Gorodzeisky, Anastasia and Semyonov, Moshe. 2018. 'Competitive threat and temporal change in anti-immigrant sentiment: Insights from a hierarchical age-period-cohort model'. *Social Science Research* <https://doi.org/10.1016/j.ssresearch.2018.03.013>
- Gorodzeisky, Anastasia, Moshe Semyonov, Eldad Davidov, and Peter Schmidt. 2018. "Threats, Prejudice and Opposition to Immigration." *Journal of Ethnic and Migration Studies*, this issue.
- Green, Eva G. T., Emilio Paolo Visintin, Oriane Sarrasin, and Miles Hewstone. 2018. "When Integration Policies Shape the Impact of Intergroup Contact on Threat Perceptions: A Multilevel Study across 20 European countries." *Journal of Ethnic and Migration Studies*, this issue.
- Heath, Anthony., Davidov, Eldad. Ford, Robert., Green, Eva.G. T., Ramos, Alice. and Schmidt, Peter. 2018. Introduction to Special Issue. "Explaining attitudes toward immigration: Findings from the immigration module in the European Social Survey 2014-15." *Journal of Ethnic and Migration Studies*, this issue.

Heath, Anthony., and Lindsay Richards. 2018. “Contested Boundaries: Consensus and Dissensus in European Attitudes to Immigration.” *Journal of Ethnic and Migration Studies*, this issue.

Heath, Anthony. F. and Tilley, James. R. 2005. “British National Identity and Attitudes towards Immigration.” *International Journal on Multiculturalism Studies* 7 (2): 119-132.

Heisig JP and Schaeffer M. 2018. “It Just Ain’t Dope to Drop the Slope! Why You Should Always Include a Random Slope for the Lower-Level Variable of a Cross-Level Interaction.” SocArXiv. DOI: 10.17605/OSF.IO/BWQTD.

Hewstone, Miles and Swart, Hermann. 2011. “Fifty-odd years of inter-group contact: From hypothesis to integrated theory.” *British Journal of Social Psychology* 50 (3): 374-386.

Inglehart, Ronald. F. 1977. *The Silent Revolution: Changing Values and Political Styles Among Western Publics*. Princeton, NJ: Princeton University Press.

Inglehart, Ronald. F. 1997. *Modernization and Postmodernization: Cultural Economic and Political Change in 43 Societies*. Princeton, NJ: Princeton University Press.

Inglehart, Ronald. F., and Abramson, P. R. 1994. “Economic Security and Value Change” *The American Political Science Review* 88 (2): 338-354.

Jennings, Myron. K., and Niemi, Richard. G. 1978. “The persistence of Political Orientations: An Over-Time Analysis of Two Generations.” *British Journal of Political Science* 8 (3): 333-363.

Lucassen, G. and Lubbers, M. 2012. “Who Fears What? Explaining Far-Right-Wing Preference in Europe by Distinguishing Perceived Cultural and Economic Ethnic Threats.” *Comparative Political Studies* 45 (5): 547-574.

Mannheim, Karl. [1927] 1952. “The Problem of Generations” in *Essays on the Sociology of Knowledge*. London: Routledge.

- McLaren, Lauren. M. 2003. "Anti-Immigrant Prejudice in Europe: Contact, Threat, Perception, and Preferences for the Exclusion of Migrants." *Social Forces* 81 (3): 909-936.
- McLaren, Lauren. M. 2012. "The Cultural Divide in Europe: Migration, Multiculturalism, and Political Trust." *World Politics* 64 (2): 199-241.
- McLaren, Lauren. M., Boomgaarden, Hajo. G., and Vliegenthart, Rens. 2017. "News Coverage and Public Concern about Immigration in Britain." *International Journal of Public Opinion Research*. <https://doi.org/10.1093/ijpor/edw033>.
- Meuleman, Bart, Abt Koenraad, Peter Schmidt, Thomas F. Pettigrew, and Eldad Davidov. 2018. "Economic Conditions, Group Relative Deprivation and Ethnic Threat Perceptions: a Cross-national Perspective." *Journal of Ethnic and Migration Studies*, this issue.
- Minkenberg, Michael and Pytlas, Bartek. 2013. "The radical right in Central and Eastern Europe: Class politics in classless societies?" in *Class Politics and the Radical Right*, edited by Jens Rydgren, 206-223. Oxon: Routledge.
- Neundorf, Anja and Stuart Soroka. 2017. "The origins of redistributive policy preferences: political socialisation with and without a welfare state", *West European Politics*, DOI:10.1080/01402382.2017.1388666.
- Oesch, Daniel and Rennwald, Line. 2010. "The Class Basis of Switzerland's Cleavage between the New Left and the Populist Right." *Swiss Political Science Review* 16 (3) 343-371.
- Pettigrew, Thomas. F., and Tropp, Linda. R. 2006. "A Meta –Analytic Test of Intergroup Contact Theory." *Journal of Personality and Social Psychology* 90 (5): 751-783.
- Quillian, Lincoln. 1995. "Prejudice as a Response to Perceived Group Threat: Population Composition and Anti- Immigrant and Racial Prejudice in Europe." *American Sociological Review* 60 (4): 586–611.

Paterson, Ian. 2018. Any room at the inn? The impact of religious elite discourse on immigration attitudes in the United Kingdom." *The British Journal of Politics and International Relations* 20(3): 594-612.

Reither, Eric. N., Masters, Ryan. K., Yang, Clair. Y., Powers, Daniel. A., Zheng, Hui and Land, Kenneth. C. 2015. "Should age-period-cohort studies return to the methodologies of the 1970s?" *Social Science & Medicine* 128: 356-365.

Ryder, Norman. B. 1965. "The Cohort as a Concept in the Study of Social Change." *American Sociological Review* 30 (6): 843-61.

Rydgren, Jens. 2002. "Radical Right Populism in Sweden: Still a Failure, But for How Long?" *Scandinavian Political Studies* 25 (1): 27-56.

Scheepers, Peer., Gijsberts, Mérove and Coenders, Marcel. 2002. "Ethnic Exclusionism in European Countries: Public Opposition to Civil Rights for Legal Migrants as a Response to Perceived Ethnic Threat." *European Sociological Review* 18 (1): 17-34.

Scheve, Kenneth. F. and Slaughter, Matthew. J. 2001. "Labour Market Competition and Individual Preferences Over Immigration Policy." *The Review of Economics and Statistics* 83 (1): 133-145.

Schlueter, Elmar and Davidov, Eldad. 2013. "Contextual sources of perceived group threat: Negative immigration-related news reports, immigrant group size and their interaction, Spain 1996-2007." *European Sociological Review* 29 (2): 179-191. DOI: 10.1093/esr/jcr054.

Schmidt-Catran AW and Fairbrother M. 2015. "The Random Effects in Multilevel Models: Getting Them Wrong and Getting Them Right." *European Sociological Review* Doi: 10.1093/esr/jcv090.

Schmuck, Desirée and Matthes, Jörg. 2015. "How Anti-immigrant Right-wing Populist Advertisements Affect Young Voters: Symbolic Threats, Economic Threats and the

Moderating Role of Education.” *Journal of Ethnic and Migration Studies* 41 (10): 1577-1599.

DOI: 10.1080/1369183X.2014.981513.

Sears, David. O. 1981. “Life-Stage Effects on Attitude Change, Especially among the Elderly.” in *Aging: Social Change*, edited by Sara. B. Keisler., James. N. Morgan and Valerie. K. Oppenheimer, 183-204. New York: Academic Press.

Semyonov, Moshe., Raijman, Rebeca and Gorodzeisky, Anastasia. 2006. “The Rise of Anti-Foreigner Sentiment in European Societies, 1988-2000.” *American Sociological Review* 71 (3) 426-499.

Semyonov, Moshe., Raijman, Rebeca and Gorodzeisky, Anastasia . 2008. “Foreigners’ impact on European societies: Public views and perceptions in a cross-national comparative perspective.” *International Journal of Comparative Sociology* 49 (1) 5-29.

Smith, A. Wade. 1985. “Cohorts, Education, and the Evolution of Tolerance.” *Social Science Research* 14 (3): 205-225.

Sniderman, Paul. M., Brody, Richard. A., and Kuklinski, James. H. 1984. “Policy reasoning and political values: The problem of racial equality.” *American Journal of Political Science* 28 (1): 75-94.

Sniderman, Paul. M., Hagendoorn, Louk and Prior, Markus. 2004. “Predisposing Factors and Situational Triggers: Exclusionary Reactions to Immigrant Minorities.” *American Political Science Review* 98 (1): 35-49.

Tilley, James. 2002. “Is Youth a Better Predictor of Sociopolitical Values Than is Nationality?” *Annals of the American Academy of Political and Social Science* 580 (1): 226-256.

Tilley, J. (2005) “Research Note: Libertarian-Authoritarian Value Change in Britain, 1974–2001.” *Political Studies* 53 (2) pp. 442-453.

Vogt, Paul. W. 1997. *Tolerance and Education*. Thousand Oaks: Sage.

- Weldon, Steven. A. 2006. "The Institutional Context of Tolerance for Ethnic Minorities: A Comparative, Multilevel Analysis of Western Europe." *American Journal of Political Science* 50 (2): 331–349.
- Wilkes, Rima and Corrigan-Brown, Catherine. 2011. "Explaining time trends in public opinion: attitudes towards immigration and immigrants." *International Journal of Comparative Sociology* 52 (1-2): 79-99.
- Wodak, Ruth and Bernhard, Forchtner. 2014. "Embattled Vienna 1683/2010: Right-wing Populism, Collective Memory and the Fictionalisation of Politics." *Visual Communication* 13 (2): 231–255. doi:10.1177/1470357213516720.
- Yang, Yang. 2008. "Social Inequalities in Happiness in the United States, 1972 to 2004: An Age-Period-Cohort Analysis." *American Sociological Review* 73 (2): 204-226.
- Yang, Yang and Land, Kenneth. C. 2008. "Age-Period-Cohort Analysis of Repeated Cross-Section Surveys: Fixed or Random Effects?" *Sociological Methods and Research* 36 (3): 297-326.

**Table 1: Model Variance Components**

	Variance	% of Total Variance in Model	N
<b><u>Model A: 3-Level Cross-Classified Model of Positive Immigration Attitudes</u></b>			
Level 1: Individual	3.514	90.6	180,629
Level 2: Country-cohort (cohort-effect)	0.080	2.1	112
Level 2: Country-year (period effect)	0.041	1.1	112
Level 3: Country	0.242	6.2	16
<b><u>Model B: 2-Level Model of Percent Foreign Born (Period Variable)</u></b>			
Level 1: Country-year	1.785	7.0	112
Level 2: Country	23.679	93.0	16
<b><u>Model C: 2-Level Model of Unemployment Rate (Period Variable)</u></b>			
Level 1: Country-year	8.010	46.5	112
Level 2: Country	9.207	53.5	16
<b><u>Model D: 2-Level Model of Percent Vote Far-Right in Early Years (Cohort Variable)</u></b>			
Level 1: Country-cohort	37.768	81.5	112
Level 2: Country	8.550	18.5	16
<b><u>Model E: 3-Level Model of Positive Immigration Attitudes</u></b>			
Level 1: Individual	3.552	91.5	180,629
Level 2: Country-cohort	0.082	2.1	112
Level 3: Country	0.247	6.4	16

Models A and E data: Rounds 1-7 of the European Social Survey.

Models B and C data: percent foreign born and unemployment levels in the year of each European Social Survey (from the OECD).

Model D data: average percentage of the popular vote for a far-right anti-immigration party for the period when cohorts were participating in their first elections, taken from the Parties and Elections in Europe website (<http://www.parties-and-elections.eu/>, last accessed 23 August 2017); see paper text for further information.

**Table 2. Three-Level Model of Positive Attitudes to Immigration, ESS1-7: Cohort Effects**

	Model 1			Model 2			Model 3		
	Cohort Fixed Effects (Dummy Variables)			Cohort Fixed Effect (1-7 Scale)			Cohort Fixed Effect (1-7 Scale) + Random Effect		
	b	SE		b	SE		b	SE	
Intercept	5.197	0.127	***	5.200	0.127	***	5.200	0.127	***
<b><i>Cohort fixed effects (dummy variables)</i></b>									
Born before 1940 (cohort 1)	--								
Born 1940-1949 (cohort 2)	0.302	0.045	***	--			--		
Born 1950-1959 (cohort 3)	0.505	0.061	***	--			--		
Born 1960-1969 (cohort 4)	0.606	0.064	***	--			--		
Born 1970-1979 (cohort 5)	0.685	0.068	***	--			--		
Born 1980-1989 (cohort 6)	0.576	0.066	***	--			--		
Born 1990+ (cohort 7)	0.586	0.074	***	--			--		
<b><i>Cohort fixed effect (1-7 variable, oldest to youngest)</i></b>	--			0.090	0.012	***	0.091	0.012	***
<b><i>Variance components†</i></b>									
Individual (Level 1)	3.552		0.0%	3.552		0.0%	3.552		0.0%
Country-cohort (Level 2)	0.023	***	72.0%	0.044	***	46.3%	0.040	***	51.2%
Country-cohort slope variance	--			--			0.001	***	
Country (Level 3)	0.257	***	-4.0%	0.252	-2.5%	-2.0%	0.253	***	-2.4%

Entries are unstandardised coefficients and standard errors; \*p ≤ 0.05; \*\*p ≤ 0.01; \*\*\*p ≤ 0.001. Level 1 N: 180,629; Level 2 (country-cohort) N: 112; country-level N: 16.

†Figures represent variance at each level and percent of variance explained at each level compared to the null model, unless otherwise indicated. Variance components with no independent variables in the model (the null model) are shown in Table 1, Model E.

**Table 3. Three-Level Model of Positive Attitudes to Immigration, ESS1-7, Interactive Effects Omitted**

	Model 1			Model 2		
	Full model, no interactions, age omitted			Full model, no interactions, age included		
	b	SE		b	SE	
Intercept	5.205	0.109	***	5.203	0.111	***
<b>Individual fixed effects</b>						
Age	--			-0.006	0.002	***
Education	0.368	0.019	***	0.368	0.019	***
Minority	0.349	0.067	***	0.349	0.067	***
Unemployed	-0.141	0.039	***	-0.141	0.039	***
Female	-0.055	0.038		-0.054	0.038	
Difficult to live on present income	-0.280	0.022	***	-0.280	0.022	***
<b>Cohort fixed effects</b>						
Cohort 1-7 variable (oldest to youngest)	0.051	0.014	**	0.045	0.038	
Pct vote far-right in formative years	0.005	0.004		0.005	0.004	
<b>Country-level fixed effects</b>						
Average pct foreign	0.007	0.018		0.007	0.018	
Average unemployment level	0.035	0.018		0.035	0.018	
<b>Variance components†</b>						
Individual (Level 1)	3.259		8.2%	3.259		8.2%
Country-cohort (Level 2)	0.014	***	82.9%	0.014	***	82.9%
Country-cohort slope variance	0.002	***		0.002	***	
Country (Level 3)	0.188	***	23.9%	0.188	***	23.9%

Entries are unstandardised coefficients and standard errors.

\* $p \leq 0.05$ ; \*\* $p \leq 0.01$ ; \*\*\* $p \leq 0.001$

Level 1 N: 180,629; Level 2 (country-cohort) N: 112; country-level N: 16.

†Figures represent variance at each level and percent of variance explained at each level compared to the null model, unless otherwise indicated. Variance components with no independent variables in the model (the null model) are shown in Table 1, Model E.

**Table 4. Three-Level Model of Positive Attitudes to Immigration, ESS1-7, Interactive Effects Included**

	Model 1			Model 2		
	Full model including cohort-far-right mobilisation interaction			Full model including cohort-far-right mobilisation-education interaction		
	b	SE		b	SE	
Intercept	5.203	0.112	***	5.190	0.147	***
<b>Individual fixed effects</b>						
Age	-0.006	0.002	***	-0.005	0.002	**
Education	0.368	0.019	***	0.355	0.020	***
Minority	0.349	0.067	***	0.349	0.067	***
Unemployed	-0.141	0.039	***	-0.133	0.040	***
Female	-0.054	0.038		-0.057	0.038	
Difficult to live on present income	-0.280	0.022	***	-0.279	0.022	***
<b>Cohort fixed effects</b>						
Cohort 1-7 variable (oldest to youngest)	-0.046	0.039		0.049	0.042	
Pct vote far-right in formative years	-0.006	0.008		0.005	0.008	
<b>Interactive effects</b>						
Pct vote far-right*cohort (1-7)	-0.0002	0.002		-0.0001	0.001	
Pct vote far-right*Education	--			0.038	0.010	***
Education*cohort (1-7)	--			0.015	0.006	*
Pct vote far-right *cohort (1-7)*Education	--			-0.007	0.002	***
<b>Country-level fixed effects</b>						
Average pct foreign	0.007	0.019		0.0004	0.019	
Average unemployment level	0.035	0.018		0.068	0.043	
<b>Variance components†</b>						
Individual (Level 1)	3.259		8.2%	3.255		8.4%
Country-cohort (Level 2)	0.014	***	82.9%	0.020	***	75.6%
Pct vote far-right*cohort slope variance††	0.002	***		--		
Pct vote far-right *cohort (1-7)*Education slope variance	--			0.00000	***	
Country (Level 3)	0.188	***	23.9%	0.196	***	20.6%

Entries are unstandardised coefficients and standard errors.

\*p ≤ 0.05; \*\*p ≤ 0.01; \*\*\*p ≤ 0.001; Level 1 N: 180,629; Level 2 (country-cohort) N: 112; country-level N: 16.

†Figures represent variance at each level and percent of variance explained at each level compared to the null model, unless otherwise indicated. Variance components with no independent variables in the model (the null model) are shown in Table 1, Model E.

**Figure 1. Illustration of Three-Way Interactive Effects**

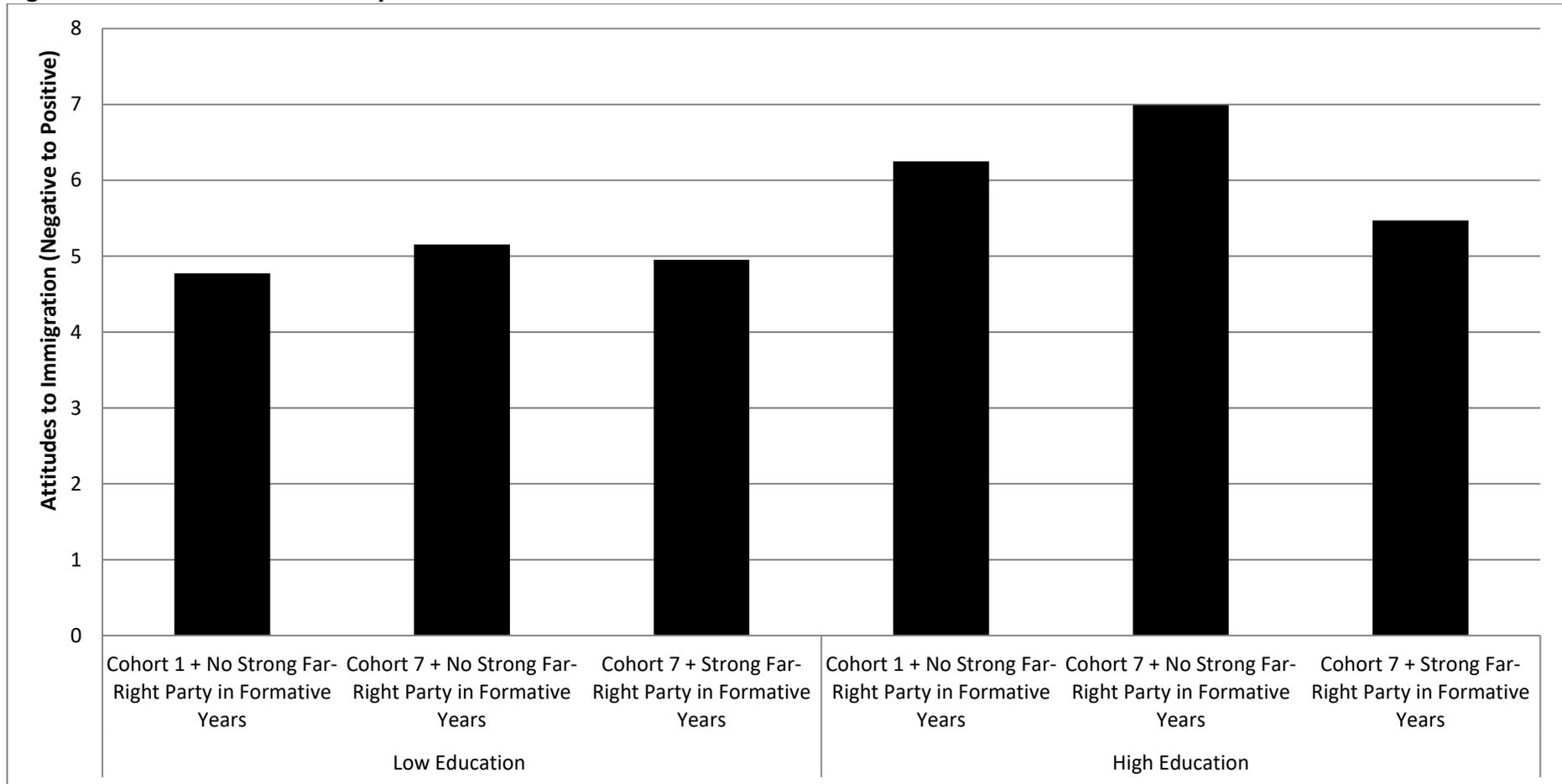


Figure created by substituting high and low values for the variables in the interaction (both the linear and interactive terms) while holding all other variables constant at their means and using the coefficients in Model 2 of Table 4 to estimate attitudes to immigration in the various scenarios shown in the figure.