The shifting issue content of left-right identification: 
Cohort differences in Western Europe

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Abstract: What do citizens make of “left” and “right” when new contested issues emerge? This study extends previous single-country studies on the shifting issue content of citizens’ left-right positions in times of realignment to a cross-national European level. Drawing on theories of political socialization and the idea that left-right identities are sticky, I argue that the issue content of citizens’ left-right positions varies with the salience of and polarization around issues at the party level during their formative years. Analyzing ESS data for 12 Western European countries from 2002 to 2018, I find that environmental protection and immigration attitudes are more strongly associated with left-right positions among those born later. In contrast, attitudes towards redistribution are less relevant within more recent cohorts, suggesting a moderate crowding out of old issues. These general patterns are nuanced by differences across countries, in line with historical and persistent cleavage constellations. These findings have several important implications—for understanding the changing lines of political conflict in Europe and their future evolvement, for potential conflicts within the “left” and the “right”, and for the usage of the left-right scale in empirical research.

Keywords: Left-right identification, political socialization, generational change, political realignment, issue attitudes.

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1. Introduction

The terms “left” and “right” are widely used by politicians, citizens, journalists, and political scientists alike to describe politics. Yet, what is meant by “left” and “right” is highly variable. Political scientists understand the left-right dimension predominantly as a “super-issue which summarizes the programmes of opposing groups” (Inglehart & Klingemann 1976: 244) and whose issue content can vary fundamentally from context to context. On the one hand, this variability represents a challenge. Partly for the lack of more detailed data on issue positions, many cross-national studies still rely on measures of left-right positions. One example are recent studies on congruence between political elites and citizens (e.g., Ibenskas & Polk 2020; Lupu & Warner 2021; Hobolt & Hoerner 2020; van de Wardt & Otjes 2021). As measures of left-right congruence may carry different issue content across space and time, such usage raises questions of comparability. On the other hand, the variable issue content of the left-right scheme is also a resource for scholars who are interested in the varying contours of political conflict. Which issue positions are associated with “left” and “right” is a good indicator of “what electoral politics is mainly about” (Kitschelt & Rehm 2018). Against these backgrounds, scholars have shown an enduring interest in the twin question which issues citizens associate with left-right and how this differs across countries (Bauer et al. 2017; Dalton 2018: chapter 3; Dalton et al. 2011: chapter 4; Freire 2008; Fuchs & Klingemann 1990; Giebler et al. 2019; Hellwig 2014; Huber 1989; Inglehart & Klingemann 1976; Inglehart 1990: chapter 9; Kitschelt & Hellemans 1990; Knutsen 1995, 1997; Meyer & Wagner 2020; Zechmeister 2006).

In times of political change and realignment, like ours, the dynamic dimension of this question comes to the fore. How does the rising salience of new issues change the meaning of left-right? How are new issues absorbed into the issue content of the left-right dimensions? And how does this affect the relevance of old issues? Do citizens of different generations adopt to the rise of new issues differently, thereby jeopardizing a common understanding of left-right? These are
important questions for scholars interested in realignment and the changing contours of political competition in Western Europe and beyond.

Yet, our knowledge on these important issues remains limited. There is a handful of studies from the 1990s touching upon the question how attitudes on new “post-materialist” cultural issues relate to left-right identification (Fuchs & Klingemann 1990; Inglehart 1990: chapter 9; Kitschelt & Hellemans 1990; Knutsen 1995, 1997). Of those, Knutsen (1995) stands out for its dynamic treatment of the question, studying both change over time and differences across cohorts in Western Europe. More recently, two single-country studies on the Netherlands in the age of globalization have been put forth. De Vries and colleagues (2013) reveal how, between 1980 and 2006, left-right positions of citizens have become less strongly associated with attitudes towards redistribution and more strongly with attitudes towards immigration. Using the same data, Rekker (2016) shows that such change is to a large degree driven by generational replacement in that attitudes towards immigration matter more in more recent cohorts. However, it is an open question whether these results generalize beyond the Dutch case (cf. de Vries et al. 2013: 235; Rekker 2016: 128). Especially since we know from previous studies that the issue content of left-right varies across countries to begin with. Overall, previous work suggests an account of realignment according to which new issues are absorbed into the issue basis of left-right through generational replacement. But the evidence for it “is still sketchy” (van der Brug & Franklin 2018: 438f.).

Building on this literature, this study investigates the shifting issue content of citizens’ left-right identifications in contemporary Europe with a focus on differences between cohorts. I argue that cohort differences follow from the combination of two mechanisms: A party cueing effect and a political socialization effect. First, how issue positions relate to left-right identity at the citizen level depends on issue salience and polarization at the party level. Second, political belief systems, especially political identities like left-right identity, are to a large extent formed
during adolescence and remain sticky thereafter. Taken together, which issues dominate political conflict between “left-wing” and “right-wing” parties during their adolescence is likely to leave a lasting footprint among citizens. In contemporary Western Europe, we should thus generally see that newer issues like immigration or environmental protection are more strongly associated with left-right positions within more recent cohorts, perhaps to some extent crowding out older issues such as redistribution. Yet, because such patterns hinge on elite-level issue competition and because historical cleavage constellations differ across countries (Lipset & Rokkan 1967; Polk & Rovny 2018; Rovny & Polk 2019), the exact generational differences are likely to differ across countries.

My empirical analysis draws on cumulative data from nine waves of the European Social Survey (ESS) for 12 Western European countries from 2002 to 2018. I find that, overall, caring for the environment and especially immigration attitudes are stronger predictors of left-right positions among (post-)millennials than among older cohorts. In contrast, attitudes towards redistribution are somewhat less relevant within recent cohorts. Once we analyze countries separately, notable nuances in these general tendencies emerge. These findings have several important implications—for understanding the changing lines of political conflict in Europe and their future evolvement, for potential conflicts within the “left” and the “right”, for the relation between socioeconomic characteristics and left-right orientations, and for the usage of the left-right scale in empirical research—which I will return to in the conclusion.

The remainder of this article is structured as follows. In the next section, I spell out the theoretical argument in more detail. The third section describes the data used. The fourth section presents findings from a pooled analysis of 12 Western European countries. Investigating these countries separately, the fifth section discusses country-specific patterns. The sixth section concludes.
2. The shifting issue content of left-right identification in Western Europe and the role of generational replacement

In this section, I proceed in the following steps. After conceptual clarifications on left-right orientations, I lay out my general argument of how cohort differences in the issue content of left-right may emerge. I will argue that cohort differences follow from the combination of two mechanisms: A party cueing effect and a political socialization effect. Next, I describe the evolving contours of political competition in Western Europe to fill this general argument with specific expectations on how the issue content of left-right differs across generational cohorts in Western Europe.

Before proceeding with my argument, a few clarifications on the multifaceted construct of left-right orientations are in order. Previous studies demonstrate that citizens’ left-right orientations may carry different meaning. On a basic level, left-right orientations may be about ideological issue positions or group identification. On the one hand, left-right orientations may reflect a broad ideological outlook on policy issues, an “issue-based ideology” (Mason 2008). In this predominant account, the left-right scheme functions as a “super issue” (Inglehart & Klingemann 1976: 244) which bundles positions on a range of more specific policy issues. Citizens may use their left-right orientations to form attitudes on unfamiliar issues; and their attitudes on salient issues may inform their overall left-right orientation (Weber & Saris 2015). Whatever the causal direction, this account emphasizes the close connection between left-right orientations and issue positions, i.e., the “issue component” of left-right orientations (Inglehart and Klingemann 1976). On the other hand, left-right self-placement may also reflect a social identity, that is, an identification with elite-level actors and social groups associated with the symbolic labels “left” and “right” (Conover & Feldman 1981; Mason 2018). When citizens identify with parties and social groups that are associated with the “right” (“left”), they may identify as “right” (“left”) themselves— independent of any issue content. Due to this “identity-
based ideology” (Mason 2018) left-right orientations may also contain a “partisan component”, related to party identification and support, and a “social component”, related to social group membership and identification (Inglehart and Klingemann 1976). Most of the time, citizens’ self-placement on the left-right scale are likely informed by both issue and identity considerations, as well as their interplay.

The present contribution is interested in the “issue component” of left-right orientations—specifically, in the relative strength of associations between left-right orientations and issue attitudes across generational cohorts in Western Europe. The goal is not to weigh in on the importance of the issue component and social and partisan components vis-à-vis each other, as classic contributions on the meaning of left-right orientations have done (see Freire 2006, 2008; Huber 1989; Knutsen 1997; Inglehart & Klingemann 1976). Yet, the idea that left-right orientations are also informed by how citizens are oriented towards political elites, especially parties, is a useful starting point for the argument that the issue content of left-right orientations is fundamentally shaped by divisions at the elite level.

This “party cueing” effect can be sketched as follows. Essentially, citizens get their cues about which issue positions are “left” and “right” from political parties (or other elites). Those issues that primarily divide political parties considered “left” and “right” will come to dominate the understanding of the issue content of left-right at the citizen level. For example, when parties of the “left” and “right” primarily differ in their stances on economic policy, the left-right scheme will take on a largely economic meaning. Ultimately, left-right orientations of citizens will be associated with their positions on those issues that are salient and polarized at the party level. Both directions of the reciprocal relationship between left-right orientations and issue orientations (Rekker et al. 2017; Weber & Saris 2015) may contribute to this pattern, and these mechanisms may reinforce each other. On the one hand, citizens form left-right orientations based on issue attitudes. They will do so based on issues that are salient and polarized at the
party level, as it is these that define left-right. On the other hand, citizens’ left-right orientations may inform their issue attitudes. For this to happen, issues need to be understood as connected to left-right, which is bound to depend on issue salience and polarization at the party level. Identity-based mechanisms are also important in this respect, as citizens will tend to adopt positions of those political parties they feel close to. Which positions they adopt, will depend on issue positions stressed by these parties.

Previous evidence on the correlates of left-right orientations is in line with this account. First, on a basic level, studies suggest that the issue component of left-right orientations is overall stronger where parties’ positions are more polarized (Freire 2008; Inglehart & Klingemann 1976). Where “programmatic party competition” (Kitschelt 1995) is weak, left-right orientations are hardly anchored in issue positions (Ruth 2016). Second, cross-country differences in how strongly different issue attitudes are associated with left-right orientations mirror which issues dominate party competition. For example, Knutsen (1995) shows that economic issues are most closely associated with left-right orientations in the Protestant Northern European countries whereas religious vs. secular attitudes are more relevant in the Catholic countries, and traces this to historical cleavage constellations that either gave rise to an enduring dominance of the economic class cleavage or the state vs. church cleavage in party competition (Lipset & Rokkan 1967; Polk & Rovny 2018; Rovny & Polk 2019). Third, the issue basis of left-right orientations seems to integrate new issues once these are taken up by political parties. As De Vries and colleagues show (2013), once immigration became a salient and polarizing issue at the party system level, Dutch citizens’ left-right orientations became increasingly related to their attitudes on immigration. Likewise, Knutsen (1995) shows how postmaterialist value orientations became increasingly related to left-right orientations after the 1970’s in economically advanced Western European countries.
However, it is questionable whether all citizens respond equally to such changes in the issue basis of party competition. The argument of a political socialization effect expects that the party cueing effect is strongest when individuals are in their politically formative years and develop their basic political orientations and identities. This reasoning builds on the “formative (or: impressionable) years hypothesis”, which holds that political orientations tend to be formed and consolidated during adolescence and early adulthood and are persistent thereafter. There is ample research supporting the formative years hypothesis, especially when it comes to attitudes and identities that are central to individuals’ political belief systems (Krosnik & Alwin 1991; Sears & Funk 1999; van der Brug & Franklin 2018). During their adolescence and early adulthood citizens develop left-right orientations in line with their basic issue attitudes, and develop basic issue attitudes in line with their left-right identities, leading to a consolidated political belief system that is more stable thereafter (Rekker et al. 2015, 2017). The associations between left-right orientations and issue attitudes that emerges in the formative years of different generations due to these processes, based on patterns of party competition during those years, is then expected to persist over time, leaving lasting footprints. These mechanics should lead to a pattern in which the issue basis of left-right orientations of generational cohorts reflects issue salience and polarization at the party system level during their adolescence and young adulthood. To the extent that new issues emerge and are absorbed into the main axis of party competition over time, the issue basis of left-right orientations should thus differ between cohorts (cf. Rekker 2016). This is the general expectation tested in this paper.¹

To move from this general statement to specific expectations about cohort differences in the issue component of left-right orientations in contemporary Western Europe, I now discuss the changing contours of party competition in Western Europe. Such a discussion comes with the

¹ Note that this argument does not rule out that citizens change left-right orientations or issue attitudes later in life in response to changes in party competition. In fact, the later analysis will detect period effects that indicate such responses. The argument holds that individuals respond more strongly during their formative years and that there is a considerable degree of persistence thereafter, not complete stability.
risk of oversimplification as it necessarily glosses over the important nuances in such broad patterns that exist across countries. In light of this, the goal is to describe general patterns in the shifting content of party competition that allows to derive general expectations about differences in the issue component of left-right orientations in Western Europe that I will investigate in the first part of the empirical analysis. In the second part of the empirical analysis, I will return to the nuances by analyzing and discussing results for individual countries and country groups.

I suggest that we can, in line with the conventional wisdom of the pertinent literature, roughly distinguish three phases in a stylized account of the salient lines of party conflict in Western Europe. The first decades after post-World-War-II tended to be characterized by a conflict over economic issues—state intervention in the economy and redistribution. In cleavage terms, this era was dominated by the class cleavage between capital and workers (Lipset & Rokkan 1967). Beginning with the late 1960s, new “post-materialist” (Inglehart 1977) cultural issues gained salience. The emerging “value cleavage” (Kriesi 1998) found expression in the rising importance of a second dimension of party competition setting “authoritarians” against “libertarians” (Kitschelt 1994, 1995). Questions that pitted conservative adherents of traditional morality against libertarian supporters of cultural diversity and emancipation on issues such as abortion, women’s rights, or tolerance towards homosexuality are important for this divide. Related to this “silent revolution” is the rise of environmental protection to a salient and contested political issue at the party system level. Though, it deserves to be noted that rather than a revolution this rise was more of a gradual nature, albeit with some ups and downs (Green-Pedersen 2019), and arguably continues to this day around the issue of global climate change. Finally, as prominently shown by Kriesi and colleagues (2008) issues associated with globalization gained prominence as a divisive issue for party competition from the 1990’s onwards. Central among these is immigration, whose rising salience for parties of both the right
and left is documented in Dancygier and Margalit (2020; also see Green-Pedersen 2019). These new globalization-related issues added to the substance of the second, “cultural” dimension of party competition, thereby to some extent crowding out conflicts over traditional morality vs. cultural liberalism in party competition (De Vries 2018; Hillen & Steiner 2020; Kriesi et al. 2008; Lefkofridi et al. 2014).

The clearest expectations on cohort differences that emerge from this discussion pertain to immigration and environmental protection. The data in Dancygier and Margalit (2020) shows that immigration became much more important to party competition in the late 1990s and 2000’s in most Western European countries. According to the general argument, this development should have affected “(post-)millennials”, born from 1980 onward and reaching early adulthood around 2000 and later, most strongly. Attitudes towards immigration should thus be more strongly related to left-right orientations among millennials than among previous cohorts in Western Europe—in line with Rekker’s (2016) finding for the Netherlands.

In case of environmental protection, the earlier yet more gradual integration of the environment in party competition should be reflected in a gradual rise in the association of environmental attitudes and left-right orientations with each successive generation. When the “interwar cohort” (born until 1945) reached early adulthood, i.e., before 1970, environmental protection was hardly a salient and polarizing issue at the party level. This was increasingly different for the “baby boomers” (born between 1946 and 1964) and their successors, i.e., the “generation X” (born between 1965 and 1979) and the millennials.

Expectations on attitudes towards traditional morality and cultural liberalism, on the one hand, and redistribution, on the other, are somewhat less clear. Attitudes on traditional morality vs. cultural liberalism—which in this study will be operationalized via tolerance for homosexuality—might be expected to be most relevant for the “boomers”. These cultural liberalism issues entered party politics through the “silent revolution” that Inglehart (1977)
famously traced back to changing value orientations among this cohort. When issues associated with globalization—immigration and migrant integration in particular—added to the second dimension later, this came to some extent at the expense of the “older” cultural liberalism issues (De Vries 2018; Kriesi et al. 2008). However, there are two caveats. The first is that these cultural liberalism issues, and rights for homosexuals specifically, remained politically contested for a long-time. For example, same-sex marriage had not been allowed in any EU country before 2001 but was then introduced in 14 of them until 2015 (Abou-Chadi & Finnigan 2018). The second is cross-country variability: In extension of the varying importance of the religious cleavage cultural issues have varied in salience for party competition across Western European countries and brought about variation in the timing and importance of party contestation over cultural liberalism issues (Polk & Rovny 2018; Rovny & Polk 2019). Tentatively, we might expect attitudes on traditional morality vs. cultural liberalism to matter most among baby boomers, albeit cohort differences are likely country specific.

In case of economic attitudes—which this study will operationalize via attitudes towards income redistribution by the government, there are also competing considerations. On the one hand, we might expect “issue crowding out” (de Vries et al. 2013: 228) to the extent that the rise of new issues pushes the “old” economic issues that once dominated left-right oppositions at the party level (in many countries) in the background. De Vries and colleagues (2013: 228) suggest that issue crowding out follows from the zero-sum character of the public issue agenda: “As a newly salient policy issue is bundled into the left/right dimension, […] other issues have to at least partially make way.” While there might be such a general tendency, a lot is likely to depend on whether economic left-right conflicts remain salient in party competition amidst the rise of other issues. Empirical research based on party manifesto data indicates that the relative salience of the economy (Green-Pedersen 2019; Hillen 2021) and party polarization around economic left-right issues (Steiner & Martin 2012) has declined in some of the Western
European countries since the 1960’s and 1970’s, but that the trend is far from uniform and that economic issues have tended to rebound in the aftermath of the financial crisis. Hillen (2021) shows, for example, that the relative salience of economic issues has remained on a relatively high level in the Scandinavian countries, whereas in Southern Europe the salience of economic issues has actually notably increased over time. There are clear decreases in the relative salience of economic issues in countries such as Germany, the Netherlands, and the UK. For the Netherlands, both de Vries et al. (2013) and Rekker (2016) find attitudes towards redistribution to be less strongly associated with left-right orientations in more recent years, yet Rekker (2016) cannot confirm the hypothesized cohort differences. Overall, while there are reasons suggesting attitudes towards redistribution to be most strongly linked to left-right orientations among the interwar cohort and to be less relevant for subsequent cohorts, cohort differences are likely country specific in this case as well.

In sum, theory and previous evidence provides strong expectations that left-right orientations should be more strongly linked to immigration attitudes among millennials and that environmental attitudes should be progressively more linked to left-right orientations within more recent cohorts. While attitudes on cultural liberalism may be, on average, more important for baby boomers and attitudes towards redistribution among the interwar cohort, these patterns seem more likely to vary across countries.

3. Data and methods

In my main analysis, I include data from those twelve Western European countries participating in all nine waves of the ESS from 2002 to 2018: Belgium, Finland, France, Germany, Ireland, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, and the United Kingdom.

As previewed above, I distinguish between four generational cohorts: Those born before 1945 (“interwar cohort”), those born between 1946 and 1964 (“baby boomers”), those born between
1965 and 1979 (“generation X”) and those born from 1980 onward (“millennials”). This parsimonious scheme is widely applied in public opinion research (see, e.g., Norris and Inglehart 2019). In the cumulated ESS data, it leads to roughly similar-sized cohorts with, in the pooled Western European sample, 47,524 individuals in the interwar cohort, 68,794 baby boomers, 52,982 in the generation X, and 43,094 (post-)millennials.

The main dependent variable is a standard measure of self-placement on a left-right scale ranging from 0 to 10. I focus on four issue items as predictors of an individual’s left-right orientation. As a standard measure of attitudes on classic economic left-right issues, I include agreement with the statement that governments should reduce differences in income levels on a five-point scale (“redistribution”). To capture attitudes on cultural liberalism vs. traditional morality, I utilize agreement with the statement that gays and lesbians should be free to live life as they wish on a five-point scale (“homosexuality”). Attitudes towards protection of the environment are proxied for by an item from the human values module. On a six-point scale, respondents were asked to indicate how much a person described in the following way is like them: “She/he strongly believes that people should care for nature. Looking after the environment is important to her/him” (“environment”). Attitudes towards immigration are captured by a question on whether “many”, “some”, “a few” or no immigrants “from the poorer countries outside Europe” should be allowed (“immigration”).

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2 As this paper is concerned with the issue correlates of left-right orientations among those who hold such an orientation, respondents who answered “don’t know” are excluded. For research on why respondents do or do not hold left-right orientations, see Otjes and Rekker (2021). In all of the Western European countries studied here the aggregate share of “don’t know” responses is below a fifth (see appendix for break-down by countries, years and cohorts).

3 Because I opted to use all nine ESS waves, I have to make us of those single items consistently included and cannot rely on composite measures. In case of immigration attitudes, it would have been possible to build a scale from several items, yet for reasons of consistency I took a single item in this case as well. A factor built from several immigration items correlates highly with the single item I use (over 0.8) and using it instead leads to similar findings (see appendix). It should also be pointed that given the different nature of the issue items used, especially in case of the environment item, absolute comparisons of how strongly different issue dimensions are associated with left-right self-placement should be made with caution. For relative comparisons between cohorts, this is less of an issue.
In all these items, higher values stand for positions associated with the left. To homogenize the scales, I recoded them to range from zero (“right-wing” position) to one (“left-wing” position), and to align the left-right scale with them, I reversed the coding of the left-right scale such that it ranges from “right” (0) to “left” (10). Attitudes on these issues should thus positively relate to the left-right scale, with the strength of the association differing between cohorts.

After presenting bivariate associations, I will present results from regressions that regress left-right positions on the four issue attitudes simultaneously—thereby treating left-right orientations as an ideological position that is related to several issue attitudes at once. The regressions model the left-right position, \( l_{ri} \), of an individual \( i \) as follows:

\[
l_{ri} = \beta_{1i} \text{cohort}_i + \beta_{2j} \text{issue}_{ij} + \beta_{3j} \text{issue}_{ij} \text{cohort}_i + \gamma_i Z_i + \gamma_{2j} \text{issue}_{ij} Z_i + \delta_i X_i + \mu_k + \sigma_k + \epsilon_i \tag{1}
\]

Of prime interest in equation (1) is the interaction between each of the four \( j \) issue variables and the cohort an individual belongs to. In interpreting the results, I will mostly focus on the conditional effects of the issue variables for different values of cohort, which result from \( \beta_{2j} \) and \( \beta_{3j} \).

To obtain reliable measures of the cohort-specific issue effects, I include control variables \( Z_i \) that are also interacted with the \( j \) issue variables. In the baseline model, two variables are included in \( Z_i \). The first is a categorical variable for education distinguishing between less than lower secondary, completed lower secondary, completed upper secondary and completed tertiary education. The second is a categorical variable for ESS waves that capture period

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4 The conditional effects of issue attitudes are also a function of \( \gamma_{2j} Z_i \). As \( Z_i \) will be held constant when comparing the conditional effects, this is not important in terms of interpreting the variation in conditional effects, however. Specifically, I will calculate conditional average marginal effects. These set cohort to specified values, calculate for each observation how the predicted left-right position changes when moving from the minimum (0) to the maximum (1) of an issue attitude using observed values on other covariates (including \( Z_i \)), and compute the average of these predicted values.

5 Controlling for education as an interactive confounder is important for two related reasons. First, left-right positions are more strongly associated with issue attitudes the higher an individual’s level of education (Inglehart & Klingemann 1976; Lesschaeve 2017). Second, individuals in more recent cohorts tend to hold higher levels of formal education. Thus, we might see stronger associations between issue attitudes and left-right positions among more recent cohorts just because these tend to be more educated. Equation (1) adjusts for differences accounted for by education, to get at a “pure” cohort effect that is informative about the effects of political socialization.
effects, i.e., changing associations between issue attitudes and left-right attitudes over time among all cohorts. In an additional model, $Z_i$ further includes a categorical age group variable distinguishing between young (up to 35), middle (36 to 59) and old (60 and older). This is done to ensure that initial differences between cohorts reflect cohort rather than age effects, following standard practice of age-period-cohort analysis of repeated cross-sectional data (Neundorf & Niemi 2014; Yang & Land 2013).\(^6\)

The regressions further include control variables, $X_i$, that are not interacted with issues. $X_i$ includes gender and in the baseline model the age groups, which are included in $Z_i$ in the second model. As individuals are nested in country-wave combinations, I include random intercepts, $\alpha_{kt}$, at this level, in addition to the individual-level error term, $\epsilon_i$. Consequently, equation (1) is estimated as a linear multilevel model. Finally, the model contains a set of fixed effects, $\mu_k$, at the country level, $k$.

4. Cohort differences in the issue basis of left-right in Western Europe

This section investigates how associations between issue attitudes and left-right position vary across the four generational cohorts in Western Europe. To that end, I analyze pooled data from the twelve Western European countries and nine waves of the ESS. I begin with a descriptive look at the bivariate associations of interest, and then turn to regression models. Distinguishing between the four generational groups, Figure 1 shows a set of scatterplots relating issue attitudes to left-right positions.

\(^6\) Age, or life cycle, effects would mean that associations between issue attitudes and left-right positions regularly change over the life course. It is not apparent why life cycle experiences should affect the issue basis of left-right positions (cf. Rekker 2016: 125), yet it cannot be ruled out. In the cumulated ESS data, the relatively short observation period of 16 years—lower than usual in applications of age-period-cohort analysis of repeated cross-sectional data—introduces high levels of collinearity between cohorts and age: 86% of the variance in age (in years) is accounted for by cohort membership. For this reason, I use a rough distinction of age groups that keeps collinearity with cohorts at an acceptable, while inevitably high, level (see the appendix for a cross-tabulation). For the same reason, age group is included in $Z_i$ only in a second step.
Figure 1: Left-right positions and issue attitudes across cohorts

Note: Scatterplot of left-right positions and issue attitudes within generational cohorts with jitter and linear regression line added. Pearson correlation listed in the title.
In line with expectations from above, Figure 1 shows attitudes towards immigration and caring for the environment to be most strongly correlated with left-right orientations among millennials. Both item’s correlation with left-right orientations increases progressively when moving from the interwar cohort to more recent ones. In contrast, attitudes towards redistribution as well as tolerance of homosexuality correlate similarly with left-right self-placement within all four cohorts. This is a first indication that some, if not all, issues are differentially related to left-right orientations across cohorts in Western Europe. However, these relations are better studied in a regression framework that allows to include the four issue attitudes simultaneously, alongside potential confounders.

Figure 2 shows the conditional effects of the four issue attitudes across cohorts based on the regression models described in the last section. A full table with all regression coefficients can be found in the appendix. The estimates in Figure 2 show how the predicted left-right positions change when moving from a “right-wing” to a “left-wing” position on the issue attitudes, with cohort set to different values. The left-hand panel presents results from the baseline model, the right-hand panel results from a model including additional interactions between age groups and issues. The results look similar across the two panels, suggesting that the variation across cohorts observed in the baseline model is not driven by life cycle effects. The most significant difference is that the conditional effects are less precisely estimated in the right-hand panel, reflecting the high collinearity between cohorts and age groups.

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7 Figure 1 also shows that more recent cohorts are more open to immigration and more tolerant of homosexuality, in line with theories of generational value change (Inglehart 1977; Norris & Inglehart 2019). Despite this, there remains enough variation in attitudes within cohorts, such that differences in the strength of associations between left-right positions and issue attitudes can hardly be attributed to a lack of variation in attitudes in certain cohorts. The appendix contains a plot with mean and standard deviations on the four issue variables and on left-right positions by cohort, which shows that standard deviations do not vary strongly by cohort. The largest differences are observed for attitudes towards homosexuals (standard deviation within interwar cohort: 0.27; standard deviation within millennials: 0.23). Overall, within-cohort standard deviations vary between 0.19 (environment among boomers) and 0.29 (immigration among boomers).
Figure 2: Effects of issue attitudes on left-right positions across generational cohorts

Note: Conditional effects with 95% and 85% confidence intervals of issue attitudes on left-right positions based on multilevel regressions. See table with complete regression results in the appendix.

In line with the bivariate associations in Figure 1 and theoretical reasoning, the results indicate the “newer” issues of immigration and environmental protection to be more closely connected to left-right orientations within more recent cohorts. In case of immigration, the largest difference is between millennials and the three previous cohorts. This pattern corresponds to the theoretical argument. Immigration became a much more divisive and salient issue at the turn of the millennium. Millennials’ political belief systems seem most affected by this development, in accordance with the party cueing and political socialization argument. In contrast, importance attached to caring for the environment becomes gradually more relevant within more recent cohorts. This almost perfectly linear pattern is in line with the environment’s steadier rise to a salient and divisive issue at the party level.

For attitudes towards homosexuals, the results do not indicate any difference in their relation to left-right orientations across cohorts, thus failing to confirm the expectation of being most relevant for boomers. Below, we will see whether this masks cross-cohort variation within countries.
Regarding attitudes towards redistribution, we observe attitudes towards redistribution to be moderately less strongly associated with left-right orientations within the generation X as well as among millennials compared to the interwar cohort and the boomers. The latter two differ hardly vis-à-vis each other: If anything, the association is only marginally smaller among boomers than within the interwar cohort. The decreasing relevance of redistribution corresponds to De Vries and colleagues’ (2013) “issue crowding out” argument: The increased connection between attitudes towards immigration as well as environmental protection and left-right orientations among especially millennials goes along with a decreased association with the classic economic left-right issue of redistribution. The result is also consistent with the observation of lower party polarization around and salience of economic issues in a subset of Western European countries in the 1990s and 2000s compared to the 1960s and 1970s (Hillen 2021; Steiner & Martin 2012). However, it is not the case that this development is already strongly reflected in the issue basis of left-right orientations among boomers, rather redistribution matters less for the generation X and millennials.\footnote{It is worth emphasizing that these effects are net of education effects. Attitudes towards redistribution are somewhat less relevant among millennials even without including the education \( X \) issue interaction in the regression model (see appendix), yet the pattern of a decreasing relevance of redistribution in the two more recent cohorts comes out clearer when adjusting for education. Conversely, when not adjusting for education, cohort differences in the relevance of immigration and environmental protection are a bit larger.}

The general pattern regarding the relevance of the four issues vis-à-vis each other is that attitudes towards redistribution are overall most strongly associated with left-right orientations, followed by immigration, homosexuality, and the environment. However, it is striking how different these patterns are for different cohorts. Among the interwar cohort, redistribution dominates clearly. Among millennials, redistribution and immigration attitudes are on par.

Figure 3 shows how the other three interaction variables condition the issue effects. These plots are all based on the more fully specified model, including the interaction between issues and age group.
The results show little evidence in favor of a conditioning effect of age. The only visible difference is a marginally stronger association between redistribution attitudes and left-right among the old, which is not intuitive from a life-cycle perspective, and perhaps rather reflects a partial misattribution of the cohort effect documented above. This is further evidence that the cohort effects from above are genuine cohort effects and not misattributed life cycle effects.

There is more evidence pointing to period effects. Immigration has jumped in importance in the 2016 wave, likely in response to the rising salience of this issue in the context of the European refugee crisis. Redistribution has gained in relevance beginning with the 2012 wave, in parallel to the Eurozone crisis, as speculated in de Vries et al. (2013: 228). These results suggest that the issue basis of left-right orientations among the general public shifts over time in response to party-level issue salience (cf. de Vries et al. 2013) in line with the party cueing argument. Both period effects and generational change contribute to a shifting issue content of left-right orientations.
Finally, Figure 3 shows that issue attitudes are much more strongly related to left-right orientations for those with higher levels of formal education.

In the appendix, I present results from additional models which further probe the robustness of the cohort differences. First, I rely on alternative, more fine-grained cohort classifications, using either ten- or five-year intervals. These lead to similar conclusions. Second, I estimated models with the issue items included in separate models. The main models are implicitly based on the assumption that left-right orientations are simultaneously related to several issues, as in the super-issue understanding of left-right. Yet, the conclusions do not hinge on this assumption—the findings are similar with separate models per issue. The main difference is that all issue effects are a bit stronger, while the differences between cohorts are largely the same. Third, I aim to address a rivaling interpretation of cohort differences in the issue content of left-right. Rather than reflecting (only or mainly) socialization effects it could be that left-right orientations differ across cohorts because there are different parties that appeal to those cohorts. For example, self-categorized left-wing voters from older cohorts may overwhelmingly vote for social-democratic parties, whereas self-categorized left-wing voters from more recent cohorts may increasingly turn to “new left” Green parties. Because these parties differ in the issues that they stress, voters get different cues about what it means to be left from their preferred parties. Alternatively, self-categorized left-wing voters from different cohorts may vote for different parties of the left that stress different issues because their left-wing political identity is tied to different issues (cf. van der Brug & Rekker 2021). It is thus plausible that these are reinforcing processes, rather than just rivaling mechanisms. While future research may tackle the thorny challenge of disentangling these mechanisms and understanding their interplay in more detail, I estimated models that excludes all those who indicated to have voted for either a Green or a radical-right party in the last national election as a robustness check. This analysis shows that if we exclude voters alongside this new division, cohort effects are similar
to those in Figure 2. Thus, the cohort differences are not driven by those who support parties of these two new party families, for whom environmental protection and immigration, respectively, are especially salient. The results are also similar when we include only voters of social-democratic and conservative as well as Christian-democratic parties—with one exception: The evidence for a dwingling association with redistribution becomes notably weaker (see appendix.).

Overall, the results in this section confirm the two clear expectations that emerge from the theoretical argument: Left-right orientations are more strongly associated with immigration attitudes among millennials and environmental attitudes are gradually more linked to left-right orientations with each cohort succeeding the interwar generation. Also in line with the—more tentative—expectation redistribution is less relevant among more recent cohorts, especially for the generation X and millennials. However, attitudes towards homosexuals are similarly relevant across cohorts, and not more central among baby boomers.

5. Cohort differences in the issue basis of left-right orientations across countries

The previous section has revealed that when investigating the nine Western European countries collectively attitudes towards immigration and environmental protection are more closely associated with left-right orientations among more recent cohorts, and attitudes towards immigration less so, while there is no trend regarding attitudes towards homosexuals. Previous research has shown that the issue content of left-right orientations strongly varies across (groups of) countries (Knutsen 1995). It is therefore natural to wonder whether these cohort differences also vary across countries. In section 2, I have hinted towards such potential variability, especially regarding attitudes towards redistribution and cultural liberalism. Here, this variability is explored empirically.
Figure 4 presents conditional effects from regressions by country. The specification is similar to equation (1), though random intercepts for country-waves as well as country fixed effects are obviously not included, and the model is estimated by OLS. I present results without the additional age X issue interaction in the main text and results with the additional age X issue interaction in the appendix. The results are, again, similar, though confidence intervals get larger with the age effect included. Following Polk and Rovny (2018) and Rovny and Polk (2019), I arranged countries by the following groups: Continental-mixed religious confession (Netherlands, Germany, Switzerland), Continental-Catholic (Belgium, France), Southern-Catholic (Spain, Portugal), Anglo-Saxon (Ireland, United Kingdom), and Scandinavian (Sweden, Norway, Finland) countries.

Figure 4 reveals strong cross-country differences in how relevant the different issues are for left-right identification to begin with. Mirroring the historical and enduring dominance of economic issues in the Protestant Nordic countries, especially the three Scandinavian countries stand out by the dominance of attitudes towards redistribution. In Sweden, for example, the predicted difference between someone who “agrees strongly” and someone who “disagrees strongly” that governments should equalize differences in income levels amounts to roughly a third of the full left-right scale for all cohorts. In contrast, in the Southern-Catholic countries, especially in Spain, attitudes towards homosexuals tend to be at least as relevant as attitudes towards redistribution. In line with previous research (Knutsen 1995), cross-national variation in historical cleavage constellations (Lipset & Rokkan 1967; Polk & Rovny 2018; Rovny & Polk 2019) that either gave rise to an enduring dominance of the economic class cleavage, as in the Protestant Nordic countries, or the state vs. church cleavage in party competition, as in the Southern-Catholic countries, are still reflected in the issue content of left-right orientations of citizens.
Figure 4: Conditional effects of issue attitudes on left-right positions across countries

Note: Conditional effects with 95% and 85% confidence intervals of issue attitudes on left-right positions based on regressions models estimated by country. Specification is similar to equation (1), though random intercepts for country-waves as well as country fixed effects are not included, and the model is estimated by OLS.

Turning to the cohort effects next, we see in Figure 4 that the three main patterns revealed above are present in many countries when considered individually. First, attitudes towards redistribution tend to be weaker predictors of left-right positions among millennials than among baby boomers and the interwar cohort in most Western European countries. This tendency is strong in countries such as Germany and the UK where the main center-left parties had moderated their economic policy positions in the context of the “Third Way” around the turn
of the millennium (Karreth et al. 2013). Sweden is the only country where there is any noticeable tendency in the opposite direction of redistribution mattering more among millennials.

Second, in most countries caring for the environment is positively associated with left-wing identification for the generation X and, especially, millennials. In contrast, there seldom is a significant association between caring for the environment and left-right self-placement among members of the interwar cohort. While cohort differences in the relevance of environmental protection are often small, the tendency for stronger associations among more recent cohorts is fairly uniform across countries.

Third, regarding attitudes towards immigration the pattern is a bit more mixed. In five—Netherlands, Germany, Switzerland, Belgium, and Sweden—of the twelve countries, immigration attitudes are undoubtedly more relevant among millennials than their predecessors. The differences are especially large in the three continental-mixed countries. Thus, the increased relevance of immigration among younger cohorts found in Rekker’s (2016) study of the Netherlands extends closely to other countries in the continental-mixed group. Remarkably, among millennials in all these three countries, but also in Belgium, left-right orientations are more strongly related to attitudes towards immigration than to attitudes towards redistribution. In contrast, within the interwar cohort in these countries redistribution dominates. This cohort shift in the relative importance of issues is pronounced in both the Netherlands and especially in Germany. In Germany, left-right orientation is mainly about redistribution within the interwar cohort, and mainly about immigration among millennials.

Perhaps apart from the case of Ireland, known for an idiosyncratic role of the left-right semantic, there is no country in which immigration is less relevant among millennials. Notably, the countries in which immigration is largely similarly relevant among millennials than preceding generations include countries in which electorally relevant radical-right “anti-immigrant”
parties have not emerged yet or did so only very recently (Ireland, Spain, Portugal). In contrast, countries in which immigration is more relevant among millennials include those in which strong anti-immigrant parties have been strongly present over the last two decades or so (Netherlands, Switzerland, Belgium).

Fourth, whereas there were no cohort differences in the relevance of attitudes towards homosexuals in the pooled analysis (see Figure 2), Figure 4 reveals interesting tendencies within (groups of) countries. In the Catholic countries of France, Spain, and Portugal in which cultural liberalism vs. traditional (religious) morality issues have been strongly politicized historically (Lipset & Rokkan 1967; Polk & Rovny 2018; Rovny & Polk 2019), attitudes towards homosexuals are comparatively strongly related to left-right orientations within the interwar cohort and tend to become less important for more recent cohorts, especially in France. This pattern contrasts with the observation for the Scandinavian countries, especially Sweden: Here the historical dominance of the economic class cleavage is still reflected in the issue content of left-right orientations among millennials, with little sign of evaporating.

In sum, the results of the by-country analysis both confirm overall patterns but also provide nuance to those. Historical differences in cleavage constellations still seem to shape cross-country variation in the issue content of left-right orientations even among millennials. The environment tends to gain in importance for recent cohorts almost everywhere. Immigration is more relevant among millennials in many countries, but especially in those with an important role of radical-right parties during the last two decades or so. Issue crowding out of redistribution among more recent cohorts is visible in many countries, but also not a uniform trend. While a detailed discussion of patterns in all individual countries is beyond the scope of

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9 A similar tendency is revealed when running analogous models for the three Eastern-Catholic countries included in all ESS waves, especially for Poland and Slovenia, yet less so for Hungary (see appendix).
the present contribution, it is plausible that these are related to the salience of and polarization around the different issue domains in party competition in individual countries over time.

At the same time, these results also demonstrate the value of the comparative approach adopted here that allows to explore cross-country heterogeneity in the first place. This approach reveals that the country studied in previous work (de Vries et al. 2013; Rekker 2016) on the dynamic issue content of left-right orientations—the Netherlands—is a model case. In the Netherlands, we see cohort differences in line with theoretical considerations for all four issues studied here: Immigration and environmental attitudes become more important, redistribution attitudes less important, and attitudes towards homosexuals tend to be less relevant for left-right identification for millennials and members of the generation X as compared to baby boomers. This is not to say that these patterns do not replicate beyond the Dutch case. They do, but not uniformly in all countries. The German case, for example, mirrors the Dutch results quite closely.

Overall, the results in this section reveal a remarkable variety in the issue basis of left-right orientations. Clearly, this issue content does not only vary across countries—it also varies within countries across cohorts, and it does so in ways that seem to reflect changes in the contours of issue competition at the party-system level.

6. Conclusion

Political competition in Western Europe has changed a lot over the last decades. “New” issues, such as immigration and environmental protection, have gained in salience and are important for today’s political divisions. In some cases, the rise of new issues seems to have pushed “old” issues that once dominated political competition—most notably economic conflicts around redistribution—to the back. However, the idea that politics can be described by the left-right
semantic has persisted. Against this background, this paper has studied how attitudes on old and new issues are associated with left-right identifications among citizens in Western European countries. Building on a previous single-country study (Rekker 2016), I have suggested that the issue content of left-right orientations may differ across cohort due to a combination of a party cueing effect and a political socialization effect.

In an empirical analysis of ESS data for 12 Western European countries from 2002 to 2018, I found that, overall, caring for the environment and especially immigration attitudes are stronger predictors of left-right positions among (post-)millennials than among older cohorts. In contrast, attitudes towards redistribution are less relevant within recent cohorts, suggesting a moderate crowding out of old issues. These general patterns are nuanced by differences across countries, in line with historical and persistent cleavage constellations. For example, the shift in the issue basis of left-right from redistribution to immigration is most pronounced in the continental Western European countries. Among millennials not only in the Netherlands (Rekker 2016) but also in Germany and Switzerland is immigration more closely related to left-right identification than redistribution, while the reverse is true for the interwar cohort. In contrast, in Sweden—a country characterized by the historical dominance of the economic cleavage—attitudes towards redistribution remain by far most relevant for left-right identification also among millennials, even though immigration is also more strongly connected to left-right among millennials than preceding generations. Starting from a low level, environmental protection tends to gain in relevance among recent cohorts almost everywhere.

This study of course not without limitations. One is the simplifying assumption that underlies modeling of left-right orientations as linear additive functions of issue attitudes. This approach ignores that individual issue attitudes might relate to left-right orientations in non-linear ways (Lachat 2018) and that issue attitudes might be interactively related to left-right orientations.
In the context of the present article, ignoring these complexities seems justified, if not necessary, to keep the analyses tractable.

Limitations notwithstanding, the present study has several important implications—for understanding the changing lines of political conflict in Europe and their future evolvement, for potential conflicts within the “left” and the “right”, for the relation between socioeconomic characteristics and left-right orientations, and for the usage of the left-right scale in empirical research. First, the paper’s findings add to evidence demonstrating the dynamic nature of the issue content of left-right and bring new evidence on how this dynamic plays out. The findings support what Fuchs and Klingemann (1990: 234) expected some thirty years ago: “The left-right schema will be retained even if the conflict structures of advanced industrial societies are changing. This means that the new dimensions of conflict have to be integrated into the left-right schema”. This study, along with Rekker’s (2016) study of the Netherlands and Knutsen’s (1995) older study of Western Europe, suggests that this transformation of left-right works through generational replacement. This is an important result because it suggests that the issue content does not only change over time, but that different understandings among cohorts coexist at any single point in time.

Second, this coexistence of different understandings of what it primarily means to be “left” (or “right”) may cause tension and rifts between different generations within the “left” (and “right”). These rifts, in turn, create challenges and trade-offs for parties who aim to appeal to voters identifying as “left” (or “right”) from different generations whose left-wing (or right-wing) identities are connected to different issues.

Third, for political scientists, these cohort differences are also important on the grounds that they illuminate how issue competition has evolved and give indications on what to expect for the future. As generational replacement is guaranteed by nature, left-right understandings of
more recent cohorts will supersede those of those previous cohorts leading to a new balance of left-right oppositions at the public level.

Fourth, with the shifting issue content of left-right the relation between socio-economic characteristics and left-right identity is bound to change as well. When left-right is mainly about redistribution, we can expect those from socio-economically disadvantaged strata to tend to identify as left-wing. When left-right is mainly about immigration and the environment for new cohorts, this is likely no longer the case.

Fifth, this study’s findings are yet another ground to use left-right positions as a measures of issue positions cautiously. On the one hand, the findings indicate that understandings of the left-right dimension integrate new conflictual issues—thereby speaking for the continued relevance of left-right as an orientation scheme. On the other hand, the fact that the issue content of left-right varies not only across countries but also within countries across cohorts renders constructs such as congruence on the left-right dimension essentially vague.

References


Karreth, J., Polk, J. T., & Allen, C. S. (2013). Catchall or catch and release? The electoral consequences of social democratic parties’ march to the middle in Western Europe. Comparative Political Studies, 46(7), 791-822.


Online Appendix to

The shifting issue content of left-right identification:
Differences across cohorts in Western Europe

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Figure A1: Don’t know responses on left-right identification across countries, cohorts and time
Figure A2: Mean and standard deviations of issue items by cohort

Note: Displayed are means +/- one standard deviation.
Table A1: Cross-tabulation of cohorts and age groups in Western European countries

<table>
<thead>
<tr>
<th>cohorts</th>
<th>up to 35</th>
<th>36 to 59</th>
<th>65 and older</th>
<th>total</th>
</tr>
</thead>
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<tr>
<td>interwar cohort (=1945)</td>
<td>0</td>
<td>1,514</td>
<td>46,010</td>
<td>47,524</td>
</tr>
<tr>
<td>baby boomers (1946 to 1964)</td>
<td>0</td>
<td>50,051</td>
<td>18,743</td>
<td>68,794</td>
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<td>generation X (1965 to 1979)</td>
<td>18,660</td>
<td>34,322</td>
<td>0</td>
<td>52,982</td>
</tr>
<tr>
<td>millennials (&gt;1980)</td>
<td>41,680</td>
<td>1,414</td>
<td>0</td>
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</tr>
<tr>
<td>total</td>
<td>60,340</td>
<td>87,301</td>
<td>64,753</td>
<td>212,394</td>
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Note: Entries are numbers.
Table A2: Cross-tabulation of cohorts and education groups in Western European countries

<table>
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<tr>
<th>cohorts</th>
<th>below lower secondary</th>
<th>lower secondary</th>
<th>upper secondary</th>
<th>tertiary</th>
</tr>
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<td></td>
<td></td>
</tr>
<tr>
<td>(=1945)</td>
<td>39.2</td>
<td>17.6</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>(1946 to 1964)</td>
<td>15.1</td>
<td>16.8</td>
<td>36.8</td>
<td>31.3</td>
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<tr>
<td>generation X</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>(1965 to 1979)</td>
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<td>13.4</td>
<td>39.4</td>
<td>41.1</td>
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<tr>
<td>millennials</td>
<td></td>
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<td></td>
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<tr>
<td>(=1980)</td>
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<td>24.7</td>
<td>42.2</td>
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<td>total</td>
<td>16.7</td>
<td>17.7</td>
<td>35.9</td>
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Note: Entries are row percentages.
Table A3: Full regression table for pooled analysis

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<th>(1) baseline model</th>
<th>(2) + age X issue interaction</th>
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</thead>
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<td><strong>cohorts (ref.: interwar cohort)</strong></td>
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<tr>
<td>baby boomers</td>
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<td></td>
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<tr>
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<td>(0.18)</td>
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<td></td>
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<td>0.93***</td>
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<td>(0.11)</td>
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<tr>
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<td>Issue Attitudes</td>
<td>Homoexuals</td>
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2014 * immigration  
-0.040  
(0.073)

2016 * immigration  
0.17*  
(0.075)

2018 * immigration  
0.18*  
(0.077)

**education (ref.: upper secondary)**  
below lower secondary  
1.48***  
(0.082)

lower secondary  
0.82***  
(0.073)

tertiary  
-1.03***  
(0.063)

**education (ref.: upper secondary) * issue attitudes**  
below lower secondary * redistribution  
-0.73***  
(0.063)

lower secondary * redistribution  
-0.34***  
(0.055)

tertiary * redistribution  
0.61***  
(0.043)

below lower secondary * homosexuals  
-0.22***  
(0.058)

lower secondary * homosexuals  
-0.17*  
(0.057)

tertiary * homosexuals  
0.32***  
(0.051)

below lower secondary * environment  
-0.37***  
(0.072)

lower secondary * environment  
-0.35***  
(0.064)

tertiary * environment  
0.24***  
(0.056)

below lower secondary * immigration  
-0.61***  
(0.052)

lower secondary * immigration  
-0.24***  
(0.047)

tertiary * immigration  
0.38***  
(0.042)

**age group (ref.: 60 and older)**  
age: up to 35  
0.11***  
(0.028)

age: 36 to 59  
0.087***  
(0.018)

**age group (ref.: 60 and older) * issue attitudes**  
age: up to 35 * redistribution  
-0.14  
(0.11)

age: 36 to 59 * redistribution  
-0.13*  
(0.070)

age: up to 35 * homosexuals  
-0.026  
(0.12)

age: 36 to 59 * homosexuals  
-0.075  
(0.079)

age: up to 35 * environment  
0.16  
(0.14)

age: 36 to 59 * environment  
0.11  
(0.094)

age: up to 35 * immigration  
-0.082  
(0.100)

age: 36 to 59 * immigration  
-0.026  
(0.064)
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| N (individuals) | 180,142 | 180,142 |
| Country-waves   | 108     | 108     |

Note: Coefficients and standard errors from linear multilevel models (individuals nested in country-wave combinations). Country dummies included but not shown. * p < 0.10, * p < 0.05, ** p < 0.01, *** p < 0.001.
Figure A3: Effects of issue attitudes on left-right positions across generational cohorts with factor for immigration attitudes (instead of single item)

Note: Conditional effects with 95% and 85% confidence intervals of issue attitudes on left-right positions based on multilevel regressions. Models are similar to main models, albeit estimated with a factor for immigration attitudes from five items (allow immigrants of same ethnic group, allow immigrants of different ethnic group, allow immigrants from poorer countries outside Europe, immigration bad/good for country’s economy, country’s cultural life undermined/enriched by immigrants) rather than the single item. Principal components factor analysis results in one factor with an Eigenvalue above 1 explaining 64% of the variance in the items, loadings are all above |0.75|. 
Figure A4: Effects of issue attitudes on left-right positions across generational cohorts without issue-education-interactions

Note: Conditional effects with 95% and 85% confidence intervals of issue attitudes on left-right positions based on multilevel regressions. Models are similar to main models, albeit estimated without the interaction terms between education and issue attitudes. These effects are thus unadjusted for varying levels of education across cohorts.
Figure A5: Effects of issue attitudes on left-right positions across generational cohorts with alternative cohort scheme (10-year intervals)

Note: Conditional effects with 95% and 85% confidence intervals of issue attitudes on left-right positions based on multilevel regressions. Models are similar to main models, albeit estimated with a different cohort classification.
Figure A6: Effects of issue attitudes on left-right positions across generational cohorts with alternative cohort scheme (5-year intervals)

Note: Conditional effects with 95% and 85% confidence intervals of issue attitudes on left-right positions based on multilevel regressions. Models are similar to main models, albeit estimated with a different cohort classification.
Figure A7: Effects of issue attitudes on left-right positions across generational cohorts, separate models per issue item

Note: Conditional effects with 95% and 85% confidence intervals of issue attitudes on left-right positions based on multilevel regressions. Models are similar to main models, albeit that separate models have been estimated per issue item. Thus, results in each panel are from four different models.
Figure A8: Effects of issue attitudes on left-right positions across generational cohorts, excluding voters of Green and radical right parties

Note: Conditional effects with 95% and 85% confidence intervals of issue attitudes on left-right positions based on multilevel regressions. Models are similar to main models, albeit excluding those who indicated to have voted for a Green or radical right party in the last national election. Party family classification is based on ParlGov (see: http://www.parlgov.org/). Yet some parties have been recoded to radical right from “agrarian” (Finland: True Finns/ Finns Party, Switzerland: Swiss People’s Party) and “conservative” (Netherlands: Forum for Democracy).
**Figure A9:** Effects of issue attitudes on left-right positions across generational cohorts, including only voters of social-democratic and conservative as well as Christian-democratic parties

Note: Conditional effects with 95% and 85% confidence intervals of issue attitudes on left-right positions based on multilevel regressions. Models are similar to main models, albeit including only those who indicated to have voted for a social-democratic, Christian democratic or conservative party in the last national election. Party family classification is based on ParlGov (see: [http://www.parlgov.org/](http://www.parlgov.org/)).
Figure A10: Conditional effects of issue attitudes on left-right positions across Eastern European countries

Note: Conditional effects with 95% and 85% confidence intervals of issue attitudes on left-right positions based on regressions models estimated by country. Specification is similar to equation (1), though random intercepts for country-waves as well as country fixed effects are not included and the model is estimated by OLS.
Figure A11: Conditional effects of issue attitudes on left-right positions across countries with control for issue X age group interaction

Note: Conditional effects with 95% and 85% confidence intervals of issue attitudes on left-right positions based on regressions models estimated by country. Specification is similar to equation (1), though random intercepts for country-waves as well as country fixed effects are not included and the model is estimated by OLS.