Growing up in a globalized society: Why younger generations are more positive about the European Union

Rekker, R.

DOI
10.1177/1103308817748433

Publication date
2018

Document Version
Final published version

Published in
Young

License
CC BY-NC

Citation for published version (APA):
Rekker, R. (2018). Growing up in a globalized society: Why younger generations are more positive about the European Union. Young, 26(4), 56S-77S.
https://doi.org/10.1177/1103308817748433

General rights
It is not permitted to download or to forward/distribute the text or part of it without the consent of the author(s) and/or copyright holder(s), other than for strictly personal, individual use, unless the work is under an open content license (like Creative Commons).

Disclaimer/Complaints regulations
If you believe that digital publication of certain material infringes any of your rights or (privacy) interests, please let the Library know, stating your reasons. In case of a legitimate complaint, the Library will make the material inaccessible and/or remove it from the website. Please Ask the Library: https://uba.uva.nl/en/contact, or a letter to: Library of the University of Amsterdam, Secretariat, Singel 425, 1012 WP Amsterdam, The Netherlands. You will be contacted as soon as possible.

UvA-DARE is a service provided by the library of the University of Amsterdam (https://dare.uva.nl)
Growing Up in a Globalized Society: Why Younger Generations Are More Positive about the European Union

Roderik Rekker

Abstract

This study examined why young Europeans are typically more positive about the European Union (EU). Analyses on Eurobarometer data (N = 1,500,058) revealed that older people are about twice as likely to oppose EU membership. This age difference was observed universally for all periods between 1973 and 2015, and for nearly all 28 countries. Generational patterns played a much larger role than life-cycle effects: People were more positive about Europe if they had come of age after their country joined the EU, but particularly if they had grown up in the era of globalization. Consistently, young Europeans were only more positive about Europe to the extent that they were also more positive about immigration and globalization in general. These findings indicate that age differences in EU support are part of a broader generational divide in which support for globalization is stronger among those who grew up in a more globalized society.

Keywords
Generations, globalization, EU support, immigration, APC

When the United Kingdom voted to leave the European Union (EU) in its June 2016 referendum, many observers noted that the ‘leave’ vote was driven mainly by older voters, whereas most of the younger voters chose ‘remain’. This observation is consistent with the scientific literature, since numerous studies have demonstrated that young Europeans are typically more positive about Europe than older people (e.g., Brinegar and Jolly, 2005; De Vreese and Boomgaarden, 2005; Down and Wilson, 2013; McLaren, 2006; Rohrschneider, 2002; Steenbergen and Jones, 2002). However, much less is known about how this age gap should be understood. A first
possibility is that age differences in EU support are driven by ‘life-cycle effects’. For example, young people could be more positive about the EU because they benefit most from opportunities to live, study and work abroad (Wilson, 2011). Contrarily, the age gap in EU support could also be driven by ‘generational differences’. For example, many older people may be nostalgic for a period with less European integration because that was the situation when they grew up.

Whether the age gap in EU support constitutes a life-cycle or a generational effect may importantly determine how the public opinion on Europe will evolve in future decades. If age effects predominate, this would imply that young Europeans will become increasingly Eurosceptic as they grow older. Since the EU has an aging population (Lutz et al., 2008), this may well result in a decreasing support for the EU in future decades. However, the opposite would be true if the age gap in EU support is instead driven by generational differences. In this case, EU support may increase as older generations are replaced by younger generations that are more positive about Europe.

The present study therefore analysed Eurobarometer data from 28 EU member states between 1973 and 2015. The first aim was to disentangle life-cycle and generational effects. A previous study on 15 EU member states already revealed that age difference in EU support should be attributed mainly to generational effects (Down and Wilson, 2013, 2017). The present study expanded on this research by including all 28 present member states, a larger time span and a different method to disentangle age, period and cohort effects. The second aim of this study was to examine if younger and older people are divided specifically on the issue of Europe, or more generally on the process of globalization that European integration is part of. In the latter case, the age gap in EU support should not be linked to specific features of European integration, but rather to a much broader process of globalization.

**Theory and Hypotheses**

*Life-Cycle or Generational Effects*

Any age difference in attitudes may either be attributed to life-cycle or to generational effects (e.g., Delli Carpini, 1989; Neundorf and Niemi, 2014). Interestingly, both types of effects seem theoretically plausible in the case of EU support. The argument for life-cycle effects can be made from a utilitarian logic in which ‘winners’ of European integration are more positive about the EU than ‘losers’ of the process. Following this logic, Down and Wilson (2013) proposed that young Europeans may have more opportunities to take advantage of opportunities afforded by the EU to live, study and work in other countries. For example, youths are typically still in the process of studying and starting their professional careers, for which the EU can provide opportunities. At the same time, they are less likely than older people to be attached to their country by things such as children, mortgages or tenure labour contracts. As such, young people could be more positive about the EU than older adults because they perceive and experience more benefits from European integration.

As an alternative to this life-cycle explanation, the theoretical argument for generational differences in EU support can be based on an extensive body of literature on generational differences in attitudes (e.g., Hooghe 2004; Mannheim, 1964; Ryder,
Such generational differences can arise because people first develop their political views early in life, particularly during adolescence (e.g., Boonen, 2015; Boonen et al., 2014; Hooghe and Wilkenfeld, 2008; Hooghe et al., 2013; Rekker et al., 2015, 2017). During this ‘formative period’, attitudes are relatively open to change (Dinas, 2013; Sears and Valentino, 1997; Sherrod et al., 2004; Wolak, 2009). By the time youths age into adulthood, their attitudes have however become much more stable (e.g., Markus, 1979; Sears and Funk, 1999). Longitudinal studies have revealed this phenomenon by calculating correlation coefficients between respondents’ initial attitudes and their attitudes numerous years later. For example, research revealed that the 6-year stability of left–right identification increases from 0.21 at age 13.5 to 0.59 at age 23 (Rekker et al., 2016). Further supporting the possibility of generational effects, studies on adolescents have also demonstrated that historical circumstances can shape the formation of adolescents’ attitudes (Dinas, 2013; Schuman and Rodgers, 2004; Sears and Valentino, 1997; Sherrod et al., 2004; Wolak, 2009).

The idea that generational difference can arise during people’s ‘impressionable years’ has been examined in many empirical studies. Results have demonstrated that generational replacement is a driving force behind over-time changes in many domains of public opinion (e.g., Grasso et al., 2017; Rekker, 2016b; Van der Brug, 2010; Walczak et al., 2012). There are theoretical reasons to aspect that the age gap in EU support can similarly be explained by generational differences. Specifically, the overarching idea of this study is that people are generally more positive about things that they grew up with and are familiar with. As such, generations may be more positive about the EU, if they grew up in a period with extensive European integration.

The expectation that people hold more positive attitudes towards European integration if they grew up with it can be derived from the psychological idea of the ‘mere exposure effect’ (Zajonc, 1968). This principle holds that people’s attitudes towards any attitude object will become more favourable as their familiarity with the object increases. This principle has been demonstrated in an extensive body of experimental studies in which participants were exposed to attitude objects by varying degrees (Bornstein, 1989). As such, young generations may have developed more positive views towards the EU because they became familiar with things such as open borders, the Euro and European elections. Of course, older generations have also witnessed the increasing European integration over the past few decades, but only at a later age, when their attitudes were less likely to be influenced. In line with the mere exposure effect, it is a well-known phenomenon that people tend to vote for the status quo in referenda, which is known as ‘status quo bias’ (e.g., Christin, Hug and Sciarini, 2002; Loewen et al., 2012; Samuelson and Zeckhauser, 1988). In the British referendum on EU membership, choosing the status quo unambiguously implied a ‘remain’ vote for younger voters. However, older voters may have perceived the entire process of European integration as a change to the situation that they grew up with, thereby viewing a ‘leave’ vote as an opportunity to maintain their perceived status quo.

In sum, both life-cycle and generational effects may explain the age gap in EU support. Like the present study, research by Down and Wilson (2013) aimed to disentangle both effects. Using Eurobarometer data from 15 countries, this study concluded that the age gap in EU support is driven mainly by generational effects, while life...
cycle effects play only a much smaller role. Using the same dataset, the present study expanded on this research by including all 28 present EU member states, a larger time span and a different method to disentangle age, period and cohort effects. Because there is a perfect multicollinearity between age, period and cohort in trend data, any attempt to disentangle their effects requires assumptions to identify the model. Whereas Down and Wilson made assumptions about the nested structure of the data (Yang and Land, 2013), the present study identified the model by using a theory-driven specification of the functional form of age, period and cohort effects (Kritzer, 1983). As such, the present study could determine if previous findings generalize to new EU member states, and if they are robust to changing the model assumptions. Based on the work by Down and Wilson (2013), this study’s first hypothesis was postulated:

**H1:** The age gap in EU support can be explained mainly by generational differences.

---

**Support for the EU in Particular or for Globalization in General**

All theoretical ideas that were discussed earlier focused specifically on support for the EU. However, European integration is but one element of a much larger process of globalization that has accelerated since the 1980s (e.g., Dicken, 1997; Figge and Martens, 2014; Held, 1999). Alongside European integration, this process is characterized by other political, cultural and economic changes. For example, European societies have become much more ethnically heterogeneous as a result of immigration. The influential work of Kriesi et al. (2008) argued that globalization has created a new political divide between winners and losers of this process. This ‘integration-demarcation cleavage’ is proposed to divide citizen on issues such as immigration, multiculturalism and European integration. Consistently, factor analytic studies have demonstrated that attitudes towards globalization issues can be modelled as a single latent dimension (Kriesi et al., 2008; Rekker, 2016a; Van der Brug and Van Spanje, 2009). These factor analytic results are rooted in strong bivariate associations between EU support and attitudes towards other aspects of globalization. For example, most people who are sceptical about European integration also oppose immigration (e.g., De Vreese and Boomgaarden, 2005). Crucial for the present study, research has therefore revealed that young Europeans are not only more positive about the EU than older people but also about immigration (McLaren, 2006).

Given these age differences in immigration attitudes, it seems plausible that the age gap in EU support could be rooted in a much broader divide on globalization. Just like generations who grew up with European integration may be more positive about the EU, generations who came of age in a globalized society may be more positive about globalization in general. The present study was the first to examine this possibility.

Alongside the previously discussed ‘mere exposure effect’, a second psychological underpinning for this hypothesis can be derived from ‘intergroup contact theory’ (Allport, 1954; Pettigrew, 1998). This theory argues that, under certain conditions, intergroup contact reduces prejudice. Empirical support for this idea can be found in an extensive body of correlational, quasi-experimental and longitudinal research (meta-analysis by Pettigrew and Tropp, 2006). For example, longitudinal research reveals that adolescents with cross-ethnic friendships develop more positive views about immigrants during their formative period (Feddes et al., 2009; Hooghe et al.,
Generations that grew up in a more ethnically diverse society may have had more opportunities to build such positive interactions with immigrants, for example in the classroom. At the same time, research shows that people are less likely to perceive ethnic diversity as a threat, as would be proposed by the ‘threat hypothesis’, when they are exposed to it at a younger age (Sturgis et al., 2013). Consequently, generations that grew up in the ethnically heterogeneous era of globalization may be more positive about immigration and potentially about globalization in general. In sum, the present study therefore examined the idea that age differences in EU support are part of a broader generational divide in which support for globalization is stronger among those who grew up in a more globalized society. Specifically, this study’s second hypothesis was postulated:

**H2:** The age gap in EU support is part of a larger generational divide in globalization attitudes. Europeans who came of age in a more globalized society will indicate greater support for the EU (H2a), but only to the extent that they are also more positive about other aspects of globalization such as immigration (H2b).

**Method**

**Sample**

This study used ‘Eurobarometer’ data from all 28 current member states of the EU. The Eurobarometer is a survey study that is conducted multiple times per year on behalf on the European Commission. In each country, approximately 1,000 randomly selected respondents are interviewed on a variety of topics. While each survey round focuses on different topics, some items were administered on many occasions. The analyses for this study were conducted on two different samples of Eurobarometer data. The first sample comprises all survey rounds that included an item on support for EU membership. In total, this sample consists of 1,472,377 respondents who were born between 1876 and 2000, and interviewed between 1973 and 2015. The second sample of this study comprises Eurobarometer round 84.3, which was conducted in November 2015. This second sample was added because it includes attitudes on immigration and globalization that were not available for the trend sample. The 2015 sample was comprised of 27,681 respondents, which brings the total sample size of this study at 1,500,058 respondents.

**Measures**

**Globalization:** This study measured countries’ levels of globalization using the ‘KOF index of globalization’ (Dreher, 2006). This index is a composite measure of economic, social and political globalization. Economic globalization is operationalized as a summary of foreign direct investments, trade flows and portfolio investments, as well as by restrictions on these processes. Social globalization is measured by personal contacts (i.e., tourism, international telephone traffic, transfers, foreign population and international letters), cultural proximity (i.e., trade in books, number of McDonald’s restaurants and IKEA stores) and information flows (i.e., trade in newspapers, Internet users, television ownership). Political globalization is indicated
by memberships in international organizations, participation in UN missions, the number of international treaties and the number of embassies. Unfortunately, the KOF index is not available for the period before 1970. Because the process of globalization did not accelerate until the 1980s (Held, 1999), respondents who came of age before this period were assigned their country’s KOF index score of 1970. For all constructs in this study, descriptive statistics and bivariate correlations are displayed in Table 1.

**EU Support:** In the trend sample (1973–2015), support for the EU was measured using an item that asked respondents ‘[g]enerally speaking, do you think that your country’s membership of the European Community is…’ Respondents could answer with ‘a good thing’, ‘a bad thing’ or ‘neither a good thing nor a bad thing’. The validity of this item has been demonstrated in previous research (Gabel, 1998). In the cross-sectional sample (2015), EU support was measured with a slightly different question: ‘In general, does the EU conjure up for you a very positive, fairly positive, neutral, fairly negative or very negative image?’

**Globalization Attitudes:** This study included attitudes on immigration and on globalization in general. Immigration attitudes were measured by asking respondents: ‘Please tell me whether each of the following statements evokes a positive or negative feeling for you.’ They were then read out: ‘immigration of people from other EU member states’ and ‘immigration from outside the EU’. Respondents’ positions were scored on a 4-point scale ranging from ‘very negative’ to ‘very positive’. Attitudes on immigration were calculated as the mean score on both items. Attitudes towards globalization in general were measured by asking respondents: ‘Could you please tell me, for each of the following, whether the term brings to mind something very positive, fairly positive, fairly negative or very negative?’ The word ‘globalization’ was one of the concepts that were presented to respondents after this question.

**Control Variables.** This study included gender and educational level as control variables. Educational level was operationalized as a categorical variable with 9 groups that indicated at what age the respondent stopped full-time education, ranging from ‘up to 14’ to ‘22 years and older’, and a 10th category that indicated respondents who were still following education.

**Disentangling Age, Period and Cohort Effects**

Any study that is interested in age, period or cohort effects faces the problem that there is a perfect multicollinearity between these constructs (Delli Carpini, 1989; Neundorf and Niemi, 2014; Stegmueller, 2014; Tilley and Evans, 2014). This well-known ‘age–period–cohort problem’ is created by the fact that there is a perfect linear relation between the three variables that can be denoted as: Age = Period – Year of Birth. Consequently, models that estimate all three effects are not identified unless certain constraints are imposed. A variety of methods have been proposed to disentangle age, period and cohort effects (e.g., Dinas and Stoker, 2014; Grasso, 2014; Smets and Neundorf, 2014). Each method relies on a specific assumption to identify the model. The study by Down and Wilson (2013) on life-cycle and generation effects in EU support made an assumption about the nested structure of the data by using a cross-random effects model, as proposed by Yang and Land (2013). Unfortunately, this method is not without its shortcomings (Bell and Jones, 2017).
Table 1. Descriptive Statistics and Bivariate Correlations (Pearson’s R)

| Variable                                      | 2          | 3          | 4          | 5          | 6          | 7          | Metric       | M    | SD   | N    |
|-----------------------------------------------|------------|------------|------------|------------|------------|------------|--------------|------|------|------|
| 1. Age                                        |           |           |           |           |           | -0.66      | -0.91        | 45.16| 18.18| 1,454,344 |
| 2. Generation: EU member at age 18            | 0.67       | 0.03       | 0.05       | 0.08       | 0.08       | dichotomy  | 0.43         | 0.50 | 1,454,344 |
| 3. Generation: Globalization at age 18        | 0.04       | 0.08       | 0.13       | 0.11       | 0–100      | 60.67      | 13.60        | 1,454,344 |
| 4. Support for EU membership                  |           |           |           |           |           | 1–3        | 2.44         | 0.73 | 1,388,564 |
| 5. Positive image of the EU                   | 0.30       | 0.31       | 1–5        | 3.16       | 0.93       | 27,322     |               |      |      |      |
| 6. Positive image of globalization            | 0.19       | 1–4        | 2.52       | 0.85       | 23,179     |             |               |      |      |      |
| 7. Positive feeling towards immigration       | 1–4        | 2.34       | 0.76       | 26,707     |             |             |               |      |      |      |

Source: Eurobarometer.

Notes: Variables 5, 6 and 7 were analysed only on 2015 data. Correlation were calculated as the average of 28 within-country correlations.
A simulation study showed that there are only few circumstances under which this hierarchical age–period–cohort (APC) model provides accurate estimates (Bell and Jones, 2014).

The first aim of the present study was therefore to determine if Down and Wilson’s findings can be replicated with a different identification strategy. Specifically, this study used a method proposed by Kritzer (1983; Pop-Eleches and Tucker, 2014) that models age, period and cohort as non-linear effects, thereby removing the perfect linear relation between the constructs. This method therefore requires some theoretical assumptions about what this non-linear relation may look like. In this study, potential life-cycle effects may for example be observed mainly between people in different life phases. For example, a 25-year-old may be more positive about the EU than a 35-year-old early adult, because they are in a different life phase and therefore in a different position to benefit from European integration. Contrarily, a 70-year-old may not necessarily have different attitudes than an 80-year-old, because both are in the same life-phase and therefore in a similar position to take advantage of the EU. This study therefore operationalized life-cycle effects based on four life phases that are commonly distinguished in developmental psychology (Arnett, 2000; Srivastava et al., 2008, Steinberg, 2011, Wink and Dillon, 2003): adolescence (age 15 through 20), early adulthood (age 21 through 29), middle adulthood (age 30 through 64) and late adulthood (age 65 through 99).

Whereas the functional form of age effects may be captured by life phases, the form of generational effects may be captured by relevant characteristics of the period during which a generation came of age. Cohort effects were therefore modelled not simply based on respondents’ year of birth but based on historical characteristics of the period in which they turned 18, which is the most formative age for political socialization according to several studies (Bartels and Jackman, 2014; Rekker et al., 2016). Drawing from the theoretical rationale in the introduction, this study distinguished two relevant characteristics of this socialization period. First, respondents who had come of age while their country was already a ‘member of the EU’ were distinguished from those who had come of age before this period. Second, respondents were assigned a score for the ‘level of globalization’ that characterized their country during their formative period, as indicated by the KOF index of globalization.

By modelling life phases and historical characteristics, this study could identify its APC models and distinguish two different components: one that captures all generational effects that are explained by differential exposure to EU membership and globalization, and another component that encompasses both life-cycle effects and unexplained generation effects. To test the first hypothesis, that the age gap in EU support is driven mainly by generational effects, this study examined if the first component is larger than the second component. Although it is a limitation of this APC identification strategy that unexplained generation effects cannot be distinguished from life-cycle effects, this strategy allowed for a very strict test of the first hypothesis by focusing only on explained generation effects. Based on this identification strategy, the APC models were estimated using regression analysis with ordinary least squares (OLS) estimation. Standard errors were robust to heteroscedasticity and clustering within countries and periods (White, 1980). To estimate age and cohort effects, each model controlled for country and period effects, as well as for country-specific period effects. This was achieved by including a
unique dummy variable for every country in every survey year. This method allowed for the possibility that period effects vary across countries. For example, support for the EU may have deteriorated during the financial crisis, but particularly in countries that were directly affected such as Greece or Cyprus.

**Results**

To provide a background for the main analyses, this study first examined if age differences in EU support are a universal phenomenon across time and space. As depicted in Figure 1, the age gap in EU support was observed for all periods between 1973 and 2015. Age differences were furthermore found across all 28 countries, with the exception of Denmark, Ireland, Luxembourg and Malta. In sum, these findings clearly demonstrate that the age gap in EU support is a rather universal phenomenon that is not specific to any country or period.

**Life-Cycle or Generational Effects**

To investigate the hypothesis (H1) that the age gap in EU support is driven mainly by generational differences, this study specified five subsequent models on the trend sample (1973–2015) as displayed in Table 2. To capture raw age differences and to provide a reference for subsequent models, a first model included only a linear term of age. A second model replaced this linear term by a categorical specification of age based on life phases. This did not result in a loss of explained variance, which suggests that using this categorical specification is an appropriate approach to identify the model. Further validating the categorical model, its explained variance was also not exceeded by a model that included both a linear and a (centred) quadratic term of age. These two models revealed substantial age differences in EU support. Compared to adolescents, late adults were about twice as likely to oppose their country’s EU membership (see Figure 2).

To examine to what extent these raw age differences may be accounted for by generational effects, a third model estimated effects for generational characteristics. As hypothesized, people were more positive about Europe, if they had reached the age of 18 during a period in which their country was already a member of the EU and already characterized by strong levels of globalization. The test of the hypothesis of generational effects was provided by the fourth model, in which life-cycle and generational effects were modelled simultaneously. The results showed that the initial effect of age was mostly removed by controlling for generational effects. This implies that generational differences in exposure to EU membership and globalization could explain most of the age gap in EU support. These findings support the hypothesis (H1) that the age gap in EU support is driven mainly by generational differences. The results are depicted graphically in Figure 2. The left side of this graph depicts the raw age difference in EU support, as estimated in the second model. The right side of Figure 1 decomposes these raw age differences into a first component of explained generational effects and a second component that captures both life-cycle effects and unexplained generational effects. As can be seen in the graph, the age gap in EU support is captured almost entirely by the first component.
Figure 1. The Correlation (Pearson’s R) Between Age and EU Support Across Decades (Left) and Countries (Right). Correlations for Each Country Were Estimated on the 2015 Sample

Source: Eurobarometer.
Table 2. Regression Models with EU Support

| 1973–2015: Support for EU Membership | 2015: Positive Image of the EU |
|--------------------------------------|--------------------------------|
| undefined                            | undefined                      |
| Age (Omit Linear)                    | 0.064***                       |
| Age (ref = middle adult)             |                                |
| Adolescence (15/20)                  | 0.047***                       |
| Early adulthood (21/29)              | 0.032***                       |
| Late adulthood (65/99)               | -0.022***                      |
| Generation                           |                                |
| EU member at age 18                  | 0.019***                       |
| Globalization at age 18              | 0.081***                       |
| Attitudes                            |                                |
| Globalization                        | 0.266***                       |
| Immigration                          | 0.273***                       |
| Control variables                    |                                |
| Period*Country                       | Yes                            |
| Gender + Education                   | No                             |
| Model                                |                                |
| Respondents                          | 1,372,390                      |
| R² (%)                               | 10.5                           |

Source: Eurobarometer.

Notes: *p < 0.05, **p < 0.01 and ***p < 0.001. Parameters are standardized.
Figure 2. Left: EU Support by Life Phase (Life-cycle and Generation Effects Together). Right: The Relative Contribution of Generational Effects. The Full Bars Indicate the Initial Age Effects as Estimated in the Second Model (See Table 2). The Grey Part Depicts All Age Differences That Were Accounted for by Differential Exposure to EU Membership and Globalization. The White Bars Depict the Effect of Life Phases After Controlling for These Generational Characteristics, as Estimated in the Fourth Model.

Source: Eurobarometer.
of explained generational effects. A fifth model finally added gender and educational level as control variables. The effect of generational differences in growing up globalization clearly remained present in this model, whereas the effect of generational variation in coming of age with EU membership became extremely small and in a reversed direction. As such, this final model was in line with this study’s expectation that the experience of growing up with globalization in general, rather than with EU membership, could be driving generational differences in EU support.

Support for the EU in Particular or for Globalization in General

The second goal of this study was to examine if the age gap in EU support is part of a larger generational divide in globalization attitudes. The first expectation (H2a) was that Europeans who came of age in a more globalized society would indicate greater support for the EU. The analyses provided unambiguous support for this hypothesis. The APC analysis revealed that the age gap in EU support is driven mainly by generational differences in having grown up with globalization. Life-cycle effects and generational differences in having grown up with EU membership had only a much smaller effect (see Table 2).

The second expectation (H2b) was that younger generations are only more positive about Europe to the extent that they are more positive about globalization in general. This hypothesis was tested using the 2015 sample since the trend sample did not include attitudes on immigration and globalization. The analysis first repeated the APC analysis that was conducted on the trend data, which revealed fairly similar results. After the five models from the APC analysis, a sixth model added attitudes on immigration and on globalization in general. As expected, generational differences in EU support were no longer visible after controlling for these attitudes. As hypothesized (H2b), generations that grew up with globalization were therefore only more supportive of the EU to the extent that they were also more positive about other globalization issues.

To better understand these results, this study conducted additional APC analyses with attitudes on globalization and immigration as outcome variables. As displayed in Table 3, results were similar to those from the APC analysis on EU support. A clear generational divide can be observed in which generations that grew up with globalization are more positive about immigration and especially about globalization in general.

Explaining Variation Between Periods and Countries

The previous analyses indicated that age differences in EU support are part of a broader generational divide in which support for globalization is stronger among those who grew up in a more globalized society. To provide further support for this idea, an additional analysis explored if the process of globalization can explain where and when generational differences can be observed. Figure 3 displays over-time changes in levels of globalization and in generational support for globalization. The top-left graph shows that levels of globalization increase rapidly in European countries after the 1970s, as proposed by historical accounts of globalization (Held, 1999). The top-right graph shows that this is the precise period in which generational patterns in EU support began to emerge. All generations that came of age before
Table 3. Regression Models with Attitudes on Immigration and Globalization.

|                          | 2015: Positive Image of Globalization | 2015: Positive Feeling toward Immigration |
|--------------------------|--------------------------------------|------------------------------------------|
|                          | Undefined | Age | Generation | Age/Gen | Controlled | Undefined | Age | Generation | Age/Gen | Controlled |
| Undefined                |           |     |            |         |            |           |     |            |         |            |
| Age (linear)             |           |     |            |         |            |           |     |            |         |            |
|                          | −.117***   |     |            |         |            |           |     |            |         |            |
| Age (ref = middle adult) |           |     |            |         |            |           |     |            |         |            |
| Adolescence (15/20)      | .090***    | .067*** | .043**    | .047***   | .019*       | −.005     |     |            |         |            |
| Early adulthood (21/29)  | .077***    | .041** | .032*     | .046***   | .007        | .004      |     |            |         |            |
| Late adulthood (65/99)   | −.022*     | .005 | .008      | −.071***   | −.041*      | −.022     |     |            |         |            |
| Generation               |           |     |            |         |            |           |     |            |         |            |
| EU member at age 18      |           |     |            |         |            |           |     |            |         |            |
|                          | −.011      | −.032 | −.033*    | .039*     | .025        | .017      |     |            |         |            |
| Globalization at age 18  | .163***    | .118*** | .107***  | .113***   | .079***     | .043*     |     |            |         |            |
| Control variables        |           |     |            |         |            |           |     |            |         |            |
| Period*Country           | Yes        | Yes | Yes       | Yes      | Yes         | Yes       | Yes | Yes        | Yes      | Yes        |
| Gender + Education       | No         | No  | No        | No       | Yes         | No        | No  | No         | No       | Yes        |
| Model                    |            |     |            |         |             |           |     |            |         |            |
| Respondents              | 23,179     | 23,179 | 23,179    | 22,750   | 26,707      | 26,707    | 26,707 | 26,707     | 26,707   | 26,199     |
| R²                       | 9.6%       | 9.8% | 9.7%      | 10.1%    | 11.0%       | 10.7%     | 10.8% | 10.9%      | 12.7%    |

Source: Eurobarometer.
Notes: * p < .05. ** p < .01. *** p < .001. Parameters are standardized.
Figure 3. Over-time Changes in Globalization and Generational Differences in Attitudes on the EU, Globalization and Immigration. The Dashed Line Indicates That No KOF Data Was Available for the Period Before 1970

Source: Eurobarometer.
1980 held roughly the same level of support for the EU, but generations that reached the age of 18 after 1980 became increasingly positive about European integration. Likewise, the bottom graphs of Figure 3 show that new generations began to show more support for European integration precisely since the 1980s.

To provide a formal test for the pattern that globalization coincides with the emergence of age differences in EU support, this study finally conducted regression analyses to predict where and when this age gap was most pronounced. If the age gap in EU support is indeed driven by generational variation in having grown up with globalization, we may expect that this age gap is strongest in years and countries where this variation is strong. Back in the 1970s, everyone may, for example, have had equally little experience with globalization during their adolescent years. As such, we may expect only a limited age gap in EU support during this period. Reversely, countries that have gone through a strong process of globalization may reveal a larger age gap in EU support, since younger and older citizens are strongly divided in the extent to which they have grown up with globalization.

The results of these analyses are depicted in Figure 4. In a first model, the units of analyses were the 43 survey years. The independent variable was the amount of intergenerational variation in having grown up with globalization during each survey year, as indicated by the standard deviation of that variable. The outcome variable was the correlation (Pearson’s R) between age and EU support in each survey year. As can be seen on the left side of Figure 4, the process of globalization indeed predicted the strength of the correlation in each survey year. For example, the correlation between age and EU support was weak in the 1970s, when there was still little intergenerational variation in having grown up with globalization.

A similar analysis was conducted with the 28 countries as units of analysis. As depicted on the right side of Figure 4, the correlation between age and EU support in every country was predicted by its intergenerational variation in exposure to globalization. For example, the age gap in EU support was weak (and even in the opposite direction) in Luxembourg. Because this country has always been characterized by strong international cooperation, generational differences in experience with globalization are relatively small in Luxembourg. Contrarily, the association between age and EU support was very strong in the Baltic states, which have gone through a strong globalization process after separating from the Soviet Union.

**Discussion**

This study examined why young Europeans are typically more positive about the EU. Results revealed that older people are about twice as likely to oppose EU membership. This age difference was observed universally for all periods between 1973 and 2015 and for nearly all 28 countries. Generational patterns played a much larger role than life-cycle effects: People were more positive about Europe if they had come of age after their country joined the EU, but particularly if they had grown up in the era of globalization. Consistently, young Europeans were only more positive about Europe to the extent that they were also more positive about immigration and globalization in general. The analyses finally demonstrated that age differences in EU support occur primarily in countries and periods that are characterized by a strong globalization process.
Figure 4. Explaining Period and Country Differences in the Age Gap in EU Support

Source: Eurobarometer.
By revealing that age differences in EU support are driven mainly by generational effects, this study replicated the findings from Down and Wilson (2013) on the same data. The hierarchical APC that was used in this previous study has been subject to methodological critiques (Bell and Jones, 2014), but the present study indicated that a different identification strategy does not substantially alter the results in this case. Whereas Down and Wilson (2013) analysed the original 15 member states of the EU, the present study furthermore revealed that generational differences in EU support are equally strong in new member states.

The phenomenon that age differences in EU support are driven by generational differences, rather than by life-cycle effects, could have important implications for how the public opinion on Europe will evolve in future decades. All else being equal, EU support may increase as older generations are replaced by younger generations that are more positive about Europe. However, it is important to emphasize that over-time, changes in public opinion do not depend solely on generational replacement. Although young generations may strengthen EU support in future decades, this influence could be undone by events such as economic or political crises.

However, the core finding of this study was that generational differences in EU support are part of a broader generational divide in which support for globalization is stronger among generations that grew up in a more globalized society. Since the 1980s, European countries have gone through an accelerated process of political, economic and cultural globalization (Held, 1999). It appears that this process has created a divide between generations that grew up in a more globalized society, and those who grew up before this period. Alongside orientations towards globalization and the EU, this generational divide also includes attitudes on immigration. These findings are therefore consistent with the influential idea that the European integration issue is part of a larger cleavage between opponents and proponents of globalization (Kriesi et al., 2008; Rekker, 2016a; Van der Brug and Van Spanje, 2009).

As discussed in the introduction, there are at least two psychological mechanisms that may explain why generations that grew up with globalization are more positive about this phenomenon. Due to the ‘mere exposure effect’ (Zajonc, 1968), people who grew up with globalization may be more positive about globalization simply because they were already familiar with it when they developed their political attitudes as an adolescent. Based on the ‘intergroup contact theory’ (Allport, 1954), generations that grew up in the ethnically heterogeneous era of globalization may have had more opportunities to build positive interactions with immigrants. Of course, the present study provides an application of these theories, rather than an empirical test. However, these two mechanisms may together shed a light on what psychological processes may have generated the generational patterns that were unravelled in this study.

Although this study departed from the observation that there is an age gap in EU support, its findings have also provided insights in similar age differences in immigration attitudes. Previous studies reported that a younger age is associated with greater support for immigration (McLaren, 2006). The present study revealed that this association is mainly driven by generational differences that can be linked to the process of globalization. In the most general sense, this study may also shed a light on how public opinion responds to large societal transformations such as globalization, secularization or individualization. Potentially, it could be a more general phenomenon that older generations oppose such processes as an unwelcome change to the world they know, whereas young generations accept them as a familiar fact of live.
As is the case for any APC analysis, an important limitation of this study was that it had to rely on assumptions to identify its APC models. The present study therefore assumed that life-cycle effects on EU support can roughly be captured by distinct life phases, and that generational effects can roughly be captured by historical characteristics (i.e., EU membership and globalization). Fortunately, the results revealed that the age gap in EU support was captured very well by these historical characteristics. It therefore seems unlikely that another identification strategy would attribute the age gap in EU support to life-cycle effects. Indeed, previous research on the same data already revealed that similar results can be obtained with a different set of assumptions (Down and Wilson, 2013). An interesting direction for future research is to unravel the precise causal chain behind generational patterns in globalization attitudes. For example, growing up with globalization could affect all globalization attitudes individually, but it could also affect more general value orientations that in turn determine attitudes on issues such as immigration or European integration (e.g., Rekker, 2016a). Furthermore, future research may focus on explaining cross-country variation in the age gap in EU support (Figure 1), beyond the limited explanation that has been given for this variation in this study (Figure 4).

**Conclusion**

In sum, this study revealed that the age gap in EU support should be interpreted as a generational divide. People who grew up in the globalization era appear to be more positive about Europe, but also about immigration and globalization in general. As such, age differences in EU support seem to be part of a broader generational divide in which support for globalization is stronger among those who grew up in a more globalized society. Older generations may oppose globalization as an unwelcome change to the world they know, whereas young generations may accept it as a familiar fact of live.

**References**

Allport, G.W. (1954) *The Nature of Prejudice*. New York, NY: Doubleday.

Arnett, J.J. (2000) ‘Emerging Adulthood: A Theory of Development from the Late Teens Through the Twenties’, *American Psychologist* 55 (5): 469–80.

Bartels, L.M. and Jackman, S. (2014) ‘A Generational Model of Political Learning’, *Electoral Studies* 33: 7–18.

Bell, A. and Jones, K. (2014) ‘Another “Futile Quest”? A Simulation Study of Yang and Land’s Hierarchical Age-Period-Cohort Model’, *Demographic Research* 30: 333–60.

———. (2017) ‘The Hierarchical Age–Period–Cohort Model: Why does it Find the Results that it Finds?’, *Quality & Quantity*: 1–17. doi: https://doi.org/10.1007/s11135-017-0488-5

Boonen, J. (2015) ‘The Development of Stable Party Preferences: Explaining Individual-level Stability among Adolescents in Belgium’, *Young* 24 (4): 313–35.

Boonen, J., Meeusen, C. and Quintelier, E. (2014) ‘The Link Between Social Attitudes and Voting Propensities: Attitude-vote Consistency among Adolescents in Belgium’, *Electoral Studies* 36: 81–93.

Bornstein, R.F. (1989) ‘Exposure and Affect: Overview and Meta-analysis of Research, 1968–1987’, *Psychological Bulletin* 106 (2): 265–89.

Brinegar, A. and Jolly, S. (2005) ‘Location, Location, Location: National Contextual Factors and Public Support for European Integration’, *European Union Politics* 6 (2): 155–80.
Christin, T., Hug, S. and Sciarini, P. (2002) ‘Interests and Information in Referendum Voting: An Analysis of Swiss Voters’, European Journal of Political Research 41 (6): 759–76.

De Vreese, C.H. and Boomgaarden, H.G. (2005). ‘Projecting EU Referendums Fear of Immigration and Support for European Integration’, European Union Politics 6 (1): 59–82.

Delli Carpini, M.X. (1989) ‘Age and History: Generations and Sociopolitical Change’, in S. R. Sigel (ed.) Political Learning in Adulthood, pp. 11–55. Chicago, IL: University of Chicago Press.

Dicken, P. (1997) Global Shift: Transforming the World Economy, 3rd edition. New York, NY: Guilford Press.

Dinas, E. (2013). ‘Opening “Openness to Change”: Political Events and the Increased Sensitivity of Young Adults’, Political Research Quarterly 66 (4): 868–82.

Dinas, E. and Stoker, L. (2014) ‘Age–Period–Cohort Analysis: A Design-based Approach’, Electoral Studies 33: 28–40.

Down, J. and Wilson, C.J. (2013) ‘A Rising Generation of Europeans? Life-cycle and Cohort Effects on Support for “Europe”’, European Journal of Political Research 52 (1): 431–56.

———, (2017) ‘A Rising Generation of Europeans? Revisited’, European Journal of Political Research 56: 199–214.

Dreher, A. (2006) ‘Does Globalization Affect Growth? Evidence from a New Index of Globalization’, Applied Economics 38 (10): 1091–110.

Feddes, A.R., Rutland, A. and Noack, P. (2009). ‘Direct and Indirect Friendship Effects on Minority and Majority Children’s Interethnic Attitudes’, Child Development 80 (2): 377–90.

Figge, L. and Martens, P. (2014) ‘Globalisation Continues: The Maastricht Globalisation Index Revisited and Updated’, Globalizations 11 (6): 875–93.

Gabel, M. (1998) ‘Economic Integration and Mass Politics: Market Liberalization and Public Attitudes in the European Union’, American Journal of Political Science 42 (3): 936–53.

Grasso, M.T. (2014) ‘Age, Period and Cohort Analysis in a Comparative Context: Political Generations and Political Participation Repertoires in Western Europe’, Electoral Studies 33: 63–76.

Grasso, M., Farrall, S., Gray, E., Hay, C. and Jennings, W. (2017) ‘Thatcher’s Children, Blair’s Babies, Political Socialisation and ‘Trickle-down Value-change: An Age, Period and Cohort Analysis’, British Journal of Political Science. doi: 10.1017/S0007123416000375

Held, D. (1999) Global Transformations: Politics, Economics and Culture. Stanford, CA: Stanford University Press.

Hooghe, M. (2004) ‘Political Socialization and the Future of Politics’, Acta Politica 39 (4): 331–41.

Hooghe, M., Meeusen, C. and Quintelier, E. (2013) ‘The Impact of Education and Intergroup Friendship on the Development of Ethnocentrism. A Latent Growth Curve Model Analysis of a Five-year Panel Study among Belgian Late Adolescents’, European Sociological Review 29 (6): 1109–21.

Hooghe, M. and Wilkenfeld, B. (2008) ‘The Stability of Political Attitudes and Behaviors Across Adolescence and Early Adulthood: A Comparison of Survey Data on Adolescents and Young Adults in Eight Countries’, Journal of Youth and Adolescence 37 (2): 155–67.

Kriesi, H., Grande, E., Lachat, R., Dolezal, M., Bornschier, S. and Frey, T. (2008) West European Politics in the Age of Globalization. Cambridge: Cambridge University Press.

Kritzer, H.M. (1983) ‘The Identification Problem in Cohort Analysis’, Political Methodology 9 (1): 35–50.

Loewen, P.J., Rubenson, D. and Spirling, A. (2012) ‘Testing the Power of Arguments in Referendums: A Bradley–Terry Approach’, Electoral Studies 31: 212–21.

Lutz, W., Sanderson, W. and Scherbov, S. (2008) ‘The Coming Acceleration of Global Population Ageing’, Nature 451: 716–19.

Mannheim, K. (1964 [1928]) ‘Das Problem der Generationen [The Generation Problem]’, in K. Mannheim (ed.) Wissensoziologie, pp. 509–65. Berlin/Neuwied: Luchterhand.
Markus, G.B. (1979) ‘The Political Environment and the Dynamics of Public Attitudes: A Panel Study’, *American Journal of Political Science* 23 (2): 338–59.

McLaren, L.M. (2006) *Identity, Interests and Attitudes to European Integration*. New York, NY: Palgrave Macmillan.

Neundorf, A. and Niemi, R.G. (2014) ‘Beyond Political Socialization: New Approaches to Age, Period, Cohort Analysis’, *Electoral Studies* 33: 1–6.

Pettigrew, T.F. (1998) ‘Intergroup Contact Theory’, *Annual Review of Psychology* 49 (1): 65–85.

Pettigrew, T.F. and Tropp, L.R. (2006) ‘A Meta-analytic Test of Intergroup Contact Theory’, *Journal of Personality and Social Psychology* 90 (5): 751–83.

Pop-Eleches, G. and Tucker, J. A. (2014) ‘Communist Socialization and Post-communist Economic and Political Attitudes’, *Electoral Studies* 33: 77–89.

Rekker, R. (2016a) ‘Social Cleavages, Democratic Representation, and Measurement Models’, in R. Rekker (Doctoral dissertation) *Social Inequality in Adolescence: An Interdisciplinary Perspective*, pp. 71–98. Utrecht: Utrecht University.

———. (2016b) ‘The Lasting Impact of Adolescence on Left–right Identification: Cohort Replacement and Intracohort Change in Associations with Issue Attitudes’, *Electoral Studies* 44: 120–31.

Rekker, R., Keijsers, L., Branje, S. and Meeus, W. (2015) ‘Political Attitudes in Adolescence and Emerging Adulthood: Developmental Changes in Mean level, Polarization, Rank-order Stability, and Correlates’, *Journal of Adolescence* 41: 136–47.

———. (2018) ‘The Formation of Party Preference in Adolescence and Early Adulthood: How and When does it Occur in the Multiparty Context of the Netherlands?’, in *Young* (in press).

———. (2017) ‘The Dynamics of Political Identity and Issue Attitudes in Adolescence and Early Adulthood’, *Electoral Studies* 46: 101–11.

Rohrschneider, R. (2002) ‘The Democracy Deficit and Mass Support for an EU-wide Government’, *American Journal of Political Science* 46 (2): 463–75.

Ryder, N.B. (1965) ‘The Cohort as a Concept in the Study of Social Change’, *American Sociological Review* 30 (6): 843–61.

Samuelson, W. and Zeckhauser, R. (1988) ‘Status Quo-bias in Decision Making’, *Journal of Risk and Uncertainty* 17 (1): 7–59.

Sears, D.O. and Funk, C.L. (1999) ‘Evidence of the Long-term Persistence of Adults’ Political Predispositions’, *The Journal of Politics* 61: 1–28.

Sears, D.O. and Valentino, N.A. (1997) ‘Politics Matters: Political Events as Catalysts for Preadult Socialization’, *American Political Science Review* 91 (1): 45–65.

Schuman, H. and Rodgers, W.L. (2004) ‘Cohorts, Chronology, and Collective Memories’, *Public Opinion Quarterly* 68 (2): 217–54.

Sherrod, L.R., Quinones, O. and Davila, C. (2004) ‘Youth’s Political Views and their Experience of September 11, 2001’, *Journal of Applied Developmental Psychology* 25 (2): 149–70.

Smets, K. and Neundorf, A. (2014) ‘The Hierarchies of Age–Period–Cohort Research: Political Context and the Development of Generational Turnout Patterns’, *Electoral Studies* 33: 41–51.

Srivastava, S., John, O.P., Gosling, S.D. and Potter, J. (2003) ‘Development of Personality in Early and Middle Adulthood: Set Like Plaster or Persistent Change?’, *Journal of Personality and Social Psychology* 84 (5): 1041–53.

Steenbergen, M.R. and Jones, B.S. (2002) ‘Modeling Multilevel Data Structures’, *American Journal of Political Science* 46 (1): 218–37.

Stegmueller, D. (2014) ‘Bayesian Hierarchical Age–Period–Cohort Models with Time-structured Effects: An Application to Religious Voting in the US, 1972–2008’, *Electoral Studies* 33: 52–62.

Steinberg, L. (2011) *Adolescence*. New York, NY: McGraw-Hill.
Sturgis, P., Brunton-Smith, I., Kuha, J. and Jackson, J. (2014) ‘Ethnic Diversity, Segregation and the Social Cohesion of Neighbourhoods in London’, *Ethnic and Racial Studies* 37 (8): 1286–309.

Tilley, J. and Evans, G. (2014) ‘Ageing and Generational Effects on Vote Choice: Combining Cross-sectional and Panel Data to Estimate APC Effects’, *Electoral Studies* 33: 19–27.

Van der Brug, W. (2010) ‘Structural and Ideological Voting in Age Cohorts’, *West European Politics* 33 (3): 586–607.

Van der Brug, W. and Van Spanje, J. (2009) ‘Immigration, Europe and the “New” Cultural Dimension’, *European Journal of Political Research* 48 (3): 309–34.

Van Zalk, M.H.W. and Kerr, M. (2014) ‘Developmental Trajectories of Prejudice and Tolerance Toward Immigrants from Early to Late Adolescence’, *Journal of Youth and Adolescence* 43 (10): 1658–71.

Walczak, A., Van der Brug, W. and De Vries, C. (2012) ‘Long- and Short-term Determinants of Party Preferences: Inter-generational Differences in Western and East Central Europe’, *Electoral Studies* 31 (2): 273–84.

White, H. (1980) ‘A Heteroskedasticity-consistent Covariance Matrix Estimator and a Direct Test for Heteroskedasticity’, *Econometrica* 48 (4): 817–38.

Wilson, I. (2011) ‘What Should We Expect of “Erasmus Generations”?’, *JCMS: Journal of Common Market Studies* 49 (5): 1113–40.

Wink, P. and Dillon, M. (2003) ‘Religiousness, Spirituality, and Psychosocial Functioning in Late Adulthood: Findings from a Longitudinal Study’, *Psychology & Aging* 18 (4): 916–24.

Wolak, J. (2009) ‘Explaining Change in Party Identification in Adolescence’, *Electoral Studies* 28 (4): 573–83.

Yang, Y. and Land, K.C. (2013) *Age–Period–Cohort Analysis: New Models, Methods, and Empirical Applications*. Boca Raton, FL: CRC Press, Taylor & Francis Group.

Zajonc, R.B. (1968) ‘Attitudinal Effects of Mere Exposure’, *Journal of Personality and Social Psychology Monograph* 9 (2): 1–27.

**Author’s Bio-sketch**

**Roderik Rekker** is a political scientist and a psychologist, who currently works as a postdoctoral researcher at the University of Amsterdam. His PhD dissertation focused on unraveling the mechanisms through which social inequality affects political socialization and delinquency in adolescence. His primary research interest is to examine stability and change in political attitudes across time, generations, and the lifespan.