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Political attitudes in adolescence and emerging adulthood: Developmental changes in mean level, polarization, rank-order stability, and correlates



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ABSTRACT

This three-wave cohort-sequential longitudinal study ($N = 1302$) examined the development of two core political attitudes, economic egalitarianism and ethnocentrism, among Dutch youths between age 12 and 31. Longitudinal regression analyses revealed a curvilinear mean level development for both attitudes, reflecting an increased disagreement with economic redistribution and multiculturalism around late adolescence. Furthermore, attitudes became decreasingly polarized (i.e., less extreme) and increasingly stable with age. Finally, several effects of attitudes' correlates gradually changed: The effect of educational level on ethnocentrism increased with age, whereas the effect of gender diminished. Regional effects on ethnocentrism developed as youths resided in a new area. No age-related change was found in the effect of parental SES. Overall, these findings support the idea that attitudes mature during the formative phase of adolescence and that this process slows down during emerging adulthood. Furthermore, these results support developmental explanations for the association between attitudes and their correlates.

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Adolescence is commonly believed to constitute a formative phase in people's lives. Research reveals that it is characterized by maturation in psychosocial domains such as personality and identity (e.g., Klimstra, Hale, Raaijmakers, Branje, & Meeus, 2009; Meeus, Van De Schoot, Keijsers, Schwartz, & Branje, 2010). As a part of this maturation, adolescents face the task to become engaged citizens in their community (e.g., Crocetti, Jahromi, & Meeus, 2012; Eckstein, Noack, & Gniewosz, 2012; Erikson, 1950). A central aspect of this engagement is the acquisition of a meaningful stance on political issues. Adolescents are believed to acquire political attitudes that will characterize them throughout their adult lifespan (Alwin, Cohen, & Newcomb, 1991; Hooghe & Wilkenfeld, 2008; Markus, 1979; Sears & Funk, 1999). At the same time, research indicates that attitude development continues during emerging adulthood (e.g., Niemi & Klingler, 2012). This cohort-sequential longitudinal study therefore investigated how Dutch adolescents and emerging adults (age 12–31) develop political attitudes. Specifically, we examined developmental changes in attitudes' mean level, polarization (i.e., extremity), and stability, as well as changes in the demographic correlates of attitudes.

We examined the development of attitudes on two core political issues: economic redistribution and the multicultural society. The issue of economic redistribution (i.e., should the government reduce differences between rich and poor?) has since long been

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at the core of West European politics (e.g., Lipset & Rokkan, 1967). At the same time, the multicultural society has in recent decades become an increasingly important issue due to globalization and the rise of anti-immigrant parties (e.g., Kriesi et al., 2008). As such, attitudes on both issues are now importantly associated with phenomena such as discriminatory behavior, left-right identification, and voting (e.g., Dejaeghere, Hooghe, & Claes, 2012; De Vries, Hakhverdian, & Lancee, 2013; Van der Brug, Fennema, & Tillie, 2000). Positions on economic redistribution and the multicultural society are furthermore considered to be the two most indicative attitudes, both theoretically and empirically, for the broader spectrum of economic and cultural political attitudes in Western Europe (e.g., Kriesi et al., 2008; Van der Brug & Van Spanje, 2009). In this study, we refer to support for economic redistribution as 'economic egalitarianism' and to opposition to the multicultural society as 'ethnocentrism'.¹

Despite the presumed importance of adolescence for attitude development, only few longitudinal studies have investigated the development of egalitarianism and ethnocentrism in West European youths. The present study expanded upon the existing literature in both scope and design. First, it added egalitarianism where previous longitudinal studies (e.g., Hooghe, Meusen, & Quintelier, 2013) have focused mainly on ethnocentrism. Second, this is the first study on this topic to cover the entire course of adolescence and emerging adulthood from age 12 to 31. This allowed us to determine whether attitude development gradually slows down as youths age from adolescence into emerging adulthood. Third, the present study featured a cohort-sequential longitudinal design that uniquely allowed us to distinguish the age effects of interest from period and cohort effects (e.g., Delli Carpini, 1989; Prinzie & Onghena, 2005). Fourth, this study uniquely combined several developmental changes with an analysis of changes in attitudes' correlates.

Developmental changes in attitudes

This study investigated three core developmental changes: mean level development, changes in polarization (i.e., extremity), and changes in rank-order stability. First, we examined age-related changes in the mean level of attitudes. In other words: Do youths on average change their attitudes in a certain direction as they grow older? Cross-sectional research has generally shown that youths are less conservative than adults on cultural issues such as ethnocentrism, but not on economic issues such as egalitarianism (Cornelis, Van Hiel, Roets, & Kossowska, 2009; Elchardus & Siongers, 2009; Felling & Peters, 1984). A longitudinal study similarly found an increase in ethnocentrism between age 18 and 21 (Hooghe et al., 2013). However, cross-sectional findings may alternatively reflect a cohort effect of tolerance among younger generations, and intra-individual studies are likely to reflect period effects as well as age effects. The present study used a cohort-sequential longitudinal design to study mean level development of attitudes from age 12 to 31, allowing us to better disentangle age effects from cohort or period effects. Based on previous studies, we expected that the mean level of ethnocentrism would increase with age (H1), though we could not postulate a priori hypotheses for the mean level development of egalitarianism.

As a second aspect of development, we investigated if attitudes become less extreme with age. Attitude development is not only characterized by a mean level, but also by a specific amount of variation around this mean. Conceptually, 'polarization' refers to how pronounced individual differences in attitudes are at a particular age. A stronger polarization means that youths are more likely to indicate radical views at both ends of an attitude's distribution. Theory suggests that youths respond more strongly to trends than adults (Prakke, 1959). Hence, they may adopt political ideologies in a relatively pure and extreme way. As youths grow older, they may gain an increased capacity to think about politics in a more nuanced way that takes multiple perspectives into account. Consequently, political attitudes may become less polarized with age (H3). To the best of our knowledge, this hypothesis has never been explicitly assessed.

Third, we assessed if attitudes become less susceptible to change as reflected by increases in the stability of interindividual differences. The idea of a formative phase importantly implies that adolescents are still more likely to change their attitudes than adults. Consistently, longitudinal research shows that the rank-order stability of political attitudes increases substantially during adolescence and emerging adulthood (Alwin & Krosnick, 1991; Krosnick & Alwin, 1989). The present study is the first to investigate increases in the six-year rank-order stability of egalitarianism and ethnocentrism across the entire course of adolescence and early adulthood. We expected that attitudes would become increasingly stable with age (H3).

Changes in associations with demographic characteristics

Alongside these three characteristics of developmental change, we examined if adolescents' attitudes gradually become associated with their adults correlates as a fourth aspect of development. Adults' political attitudes are importantly rooted in core demographic characteristics such as socioeconomic status, educational level, area of residence, and gender (e.g., Kriesi et al., 2008; Lipset & Rokkan, 1967). The present study departs from the idea that youths' attitudes may gradually become associated with attitudes' adult correlates and that this process constitutes a part of attitudes' maturation.

As a first type of demographic correlates, this study investigated socioeconomic status (SES) and educational level. Affluent and highly educated adults typically oppose efforts to reduce socioeconomic inequality (e.g., Kriesi et al., 2008; Middendorp, 1991: 158), presumably because they have little to gain and much to lose from such efforts (Kriesi et al., 2008). Instead, less

¹ In this study, ethnocentrism specifically refers to a political attitude. As such, it is to be distinguished from concepts like prejudice that more generally refer to a negative evaluation of and hostility toward social groups (e.g., Cunningham, Nezlek, & Banaji, 2004; Raabe & Beelmann, 2011). However, political attitudes and prejudice may share common roots in phenomena like social dominance orientation or authoritarianism (e.g., Duckitt, 2001).

affluent and low educated adults typically oppose the multicultural society (e.g., Meeusen, de Vroome, & Hooghe, 2013). One explanation for this (Meeusen et al., 2013) is that people who have not been influenced by the liberalizing effect of a high educational level may perceive a stronger cultural threat from globalization (Kriesi et al., 2008). Also, people in the lower segments of the labor market may perceive a stronger economic threat from immigrants (Kriesi et al., 2008; Quillian, 1995). For youths, the SES of their parents may be particularly relevant, as many youths still live at home and have yet to fully establish their own SES. Youths may partly inherit their parents' social class or adopt their parents' attitudes (Glass, Bengtson, & Dunham, 1986; Vollebergh, Iedema, & Raaijmakers, 2001). Therefore, we expected that egalitarianism and ethnocentrism would be stronger among youths with low-SES parents (H4) and among low-educated youths (H5).

Placing these demographic factors in the context of development, we view it as a sign of maturation if youths' attitudes gradually become associated with attitudes' adult correlates. For example, educational level is something that youths acquire gradually during the course of adolescence and emerging adulthood. If education induces greater tolerance, its effect on ethnocentrism may emerge gradually as youths go through education. Indeed, one study found evidence for such an increase in the association between education and ethnocentrism between age 16 and 21 (Hooghe et al., 2013). Likewise, the effect of educational level on egalitarianism may emerge gradually as it becomes to determine youths' SES. We therefore expected that the effect of educational level on political attitudes would become stronger with age (H6). Contrarily, parental SES may be a constant predictor of attitudes as it is already present when attitude development begins.

As a second type of demographic correlate, we investigated area of residence. Individual differences in adults' ethnocentrism can partly be explained on a regional level (Sharp & Joslyn, 2008). Post-industrial urban areas are believed to have a particularly tolerant cultural climate (Florida, 2005) and comparatively little to fear from the economic impact of globalization (Van der Waal & Burgers, 2010). As such, youths' choice for an area to reside when they leave the parental home may partly determine how they will subsequently develop their attitudes. We therefore expected that ethnocentrism would be stronger among youths in rural areas (H7). If youths reside in a more urban area,² their tolerance towards immigrants may increase. In other words, within-individual overtime changes in youths' area of residence may relate to overtime changes in ethnocentrism (H8). The present study is the first to investigate this issue.

Aside from these social structural effects, attitudes have been associated with gender. Theory proposes that the feminine gender role fosters social political attitudes, whereas the masculine gender role induces more competitive views (Vollebergh, Iedema, & Meeus, 1999). These gender effects on attitudes may be particularly important during adolescence, since gender-intensification theory (Hill & Lynch, 1983; Raaijmakers, 1993) proposes a temporary strengthening of gender roles during this life phase. Indeed, research shows that females are less conservative on both economic and (less consistently found) cultural issues (Boehnke, Hagan, & Hefler, 1998; Furnham, 1985; Vollebergh et al., 1999). In other words, females may be more likely to support both economic redistribution and multiculturalism (H9). Consistent with gender-intensification theory, previous research furthermore revealed that the effect of gender on cultural attitudes like ethnocentrism becomes weaker with age after adolescence (Hooghe et al., 2013; Meeus, Raaijmakers, & Vollebergh, 1992). The present study aimed to replicate this finding on ethnocentrism and furthermore investigated if the effect of gender on egalitarianism likewise becomes weaker with age (H10).

The present study

In sum, this study investigated how political attitudes develop between age 12 and 31. As such, we examined if adolescence and emerging adulthood constitute a formative phase for this development. We hypothesized that the mean level of ethnocentrism would increase with age. Furthermore, we expected that the polarization of attitudes would decrease, whereas their stability would increase. Finally, we hypothesized age-related changes in the associations between attitudes and their correlates (i.e., parental SES, educational level, area of residence, and gender).

Method

Sample

This study was conducted on the 'Utrecht Study of Adolescent Development (USAD) 1991–1997' (t Hart, Meeus, & Kox, 1993). 3392 Dutch youths between age 12 and 25 participated in a first wave in 1991. A comparison between this sample and Dutch population figures shows that the study can be considered nationally representative,³ but only for native Dutch

² We used a municipality's degree of urbanization to tap into regional effects. Theory proposes that it is not urbanization itself, but rather the post-industrial nature of many big cities that fosters tolerance (Sharp & Joslyn, 2008; Van der Waal & Houtman, 2010). Since we lacked a measure on post-industrialism, degree of urbanization enabled us to distinguish post-industrial cities from rural areas (though not from industrial cities).

³ A comparison between the initial USAD ($N = 3392$) sample at the first wave and Dutch population figures showed no differences with regard to core demographics (t Hart et al., 1993). For the present study, we used a longitudinal subsample of 1302 participants who additionally participated in a second and a third wave. Analyses on attrition revealed that older respondents ($Pseudo R^2 = 0.9\%$, $p < .001$), males ($Pseudo R^2 = 0.4\%$, $p < .001$), low educated respondents ($Pseudo R^2 = 0.3\%$, $p = .004$), and ethnocentric respondents ($Pseudo R^2 = 0.2\%$, $p = .008$) were more likely to dropout. Though dropout was associated with several relevant characteristics, these associations were relatively weak. It therefore seems that the findings of this study can, with some caution, be generalized to broader populations.

youths since almost no immigrants participated (‘t Hart et al., 1993). Of the respondents who participated in the first wave, 822 refused to continue participation in subsequent waves. Of the 2570 remaining respondents, 1302 were selected to participate in a second wave in 1994 and a third wave in 1997.³ For each respondent, one (randomly selected) parent was interviewed. Respondents' age was about evenly distributed (based on the first wave): 25% early adolescents aged 12–14, 26% middle adolescents aged 15–17, 20% late adolescents aged 18–20, and 29% young adults aged 21–24. The sample consisted of 42% males and 58% females. The respondents' educational level was 16% low-level, 41% middle-level, 25% high-level, and 18% highest-level. Parental SES was distributed as 3% working class, 43% lower middle class, 20% central middle class, 21% higher middle class, and 12% upper class.

Measures

Egalitarianism and ethnocentrism

Economic egalitarianism was measured using five items with a 5-point Likert-scale. An example of an item is “Differences between low and high incomes should be smaller.” The items were adopted from Middendorp’s (1978) ‘Equality of Income, Status, and Possession’ scale and adjusted for use among adolescents by Meeus (1988). The scale demonstrated good reliability properties in our sample: $\alpha = .85$ at all three waves. Ethnocentrism was measured using four items with a 5-point Likert-scale adopted from Hagendoorn and Janssen (1983). An example of an item is “Foreigners pose a threat to our culture.” Reliability ranged from $\alpha = .84$ to $.87$ across the three waves. Scales were computed and scaled to range between 0 and 10, with a high score indicating strong support for efforts to reduce socioeconomic inequality or strong rejection of the multicultural society. The validity of the measures for egalitarianism and ethnocentrism was demonstrated by previous research (Middendorp, 1991; Raaijmakers, 1993). A list of all items is displayed in Appendix 1.

Social structural characteristics

Parental SES was measured on a five-point scale based on both parents' occupational status and educational level as reported by the parent. Respondents were assigned the highest educational level they were presently enrolled in or had already completed at the third wave: low-level (VBO), middle-level (MAVO/MBO), high-level (HAVO/HBO) or highest-level (VWO/University). Respondents' municipalities were assessed at the first and the second wave. Municipalities were assigned a degree of urbanization on a continuous scale ranging from 1 (rural areas) to 13 (big cities). Because we lacked information on urbanization at the third wave, we used urbanization at the second wave as an indicator.

Analyses

Estimation method

This study's primary method is random effects longitudinal regression analysis with generalized least squares (GLS) estimation (Cameron & Trivedi, 2005). We used heteroscedasticity-robust and cluster-robust standard errors (White, 1980). The distinguishing feature of the random effects model is that it uses both between-individual and within-individual variation to estimate a single parameter. Using both sources of variation simultaneously results in more efficient parameter estimates (Cameron & Trivedi, 2005) and furthermore helps us to disentangle age, period, and cohort effects. Specifically, some variables in this cohort-sequential longitudinal study (gender, educational level, and parental SES) vary only between individuals, whereas others (age and urbanization) additionally vary within individuals over time. Age effects can be confounded by cohort effects if only between-individual variation is used and by period effects if only within-individual variation is used. By simultaneously using both types of variation, the impact of both confounding effects can be reduced. Based on this logic, we furthermore used the Hausman (1978) test to determine if age effects were confounded. In all but one case,⁴ this test revealed no significant difference between estimates obtained using both between-individual and within-individual variation and estimates obtained using only within-individual variation. This suggests that age effects were not biased by either cohort or period effects.

Model specification

For the analyses on mean level and polarization, we specified regression models with only age as predictor. For mean level development, we used the scale-scores as outcome measure. Polarization was operationalized as respondents' absolute deviation from the mean score of their peers at the same wave. For example, a 14-year old respondent with a score of 2 scored either 2 points below or 2 points above to mean score of all 14-year old respondents at the same wave.

For the analyses on how attitudes are correlated with social structural characteristics and gender, the outcome measure consisted of respondents' relative positions on egalitarianism and ethnocentrism compared to their peers at the same wave. For example, a 14-year old respondent with a score of 2 scored two times the standard deviation of all 14-year old respondents at the same wave above the mean score of this same group. As such, we eliminated age and period differences in the mean and variance that could otherwise have confounded the results.

⁴ In the one instance that the estimates did not converge (the Education \times Age interaction for egalitarianism), the within estimates disconfirmed the hypothesis like the combined estimates.

Model specification on attitudes' correlates proceeded in three steps. For each individual correlate (e.g., gender), we first investigated if it revealed a bivariate association with either egalitarianism or ethnocentrism. Also, we investigated interactions between the correlate and age. Second, we specified a model with all correlates that demonstrated a bivariate association in the first step, but without interactions with age. Third, we added the previously significant interactions with age to the model. We tested each hypothesis on the model that controls for as many effects as possible. However, hypotheses regarding variables that were included in interaction terms were tested on a model without these interactions to properly assess main effects. For example, the effect of gender was assessed in a model that also included educational level, but not an interaction between gender and age. Religious adherence was included in the analyses as a control variable.

Functional form

Prior to all analyses on the effect of age, we assessed its proper functional form (see [Appendix 2](#)). We compared three different forms: linear, logarithmic, or a combination of both. The logarithmic form reflects the theoretical idea that political attitude development is strongest during adolescence and gradually slows down during emerging adulthood.⁵ If the results indicated a significant effect for both the linear and the logarithmic term, we concluded that a combination of both terms best describes the effect of age. If not, we assessed both terms in separate models and choose the logarithmic term if it demonstrated a higher explained variance than the linear term.

Results

Developmental changes in attitudes

To examine the mean level development of egalitarianism and ethnocentrism, we specified regression models with age as predictor. Egalitarianism was best predicted by a combination of a linear ($z = 4.92, p < .001$) and a logarithmic term ($z = -5.70, p < .001$) of age, suggesting a U-shaped curvilinear mean level development. Youths showed a strongly decreasing support for economic redistribution during adolescence, but a slightly increasing support during emerging adulthood.

The mean level development of ethnocentrism was also best captured by a combination of a linear ($z = -5.73, p < .001$) and a logarithmic term ($z = 4.01, p < .001$) of age, indicating an inverse U-shaped mean level development. Youths showed an increasing opposition to multiculturalism until late adolescence, but decreased thereafter. As such, we found no support for our hypothesis (H1) that the mean level of ethnocentrism increases with age (see [Table 1](#) and [Fig. 1](#)).

To investigate if youths' attitudes become decreasingly polarized with age, we specified regression models with our measure of polarization as dependent variable and age as predictor. For egalitarianism, we found no significant effect of age ($z = -1.70, p = .089$). For ethnocentrism, polarization was negatively predicted by a logarithmic term of age ($z = -5.50, p < .001$). Consequently, our hypothesis (H2) that political attitudes become decreasingly polarized with age was supported only for ethnocentrism.

To test whether political attitudes become increasingly stable with age, we first divided respondents in four groups based on their age at the first wave: 12 through 14, 15 through 17, 18 through 20, and 21 through 24. For each age group, we obtained (Pearson's r) correlation coefficient between scores at wave 1 and scores at wave 3 as a six-year rank-order stability. We then compared the coefficient of the youngest age group with that of the oldest ([Paternoster, Brame, Mazerolle, & Piquero, 1998](#)). Egalitarianism's stability increased from .13 to .57 ($z = -4.53, p < .001$). Ethnocentrism's stability increased from .43 to .69 ($z = 3.61, p < .001$). As such, our third hypothesis (H3) was confirmed (see [Table 2](#)).

Changes in associations with demographic characteristics

Economic egalitarianism

To investigate the correlates of egalitarianism, we first specified separate models for each predictor (models 1 through 5; see [Table 3](#)) to determine which should be included in subsequent analyses. Educational level, religion, gender, and parental SES revealed a bivariate association with egalitarianism and were therefore accepted for subsequent models. None of the variables under study displayed an interaction with age. This contradicted our hypotheses for educational level ($\chi^2(3) = 2.24, p = .523$) and gender ($z = 0.87, p = .385$). In other words, we found no support for our hypothesis (H6) that the effect of educational level on egalitarianism would become stronger with age or for our hypothesis (H10) that the effect of gender would diminish.

Next, we specified a model (model 6) with all predictors that were accepted in the previous step. This model was used to test our hypotheses regarding the main effects of parental SES, educational level, and gender. Parental SES ($\chi^2(3) = 47.36, p < .001$), educational level ($\chi^2(3) = 24.37, p < .001$) and gender ($z = 6.59, p < .001$) all displayed a main effect. As hypothesized, egalitarianism was stronger among youths with low-SES parents (H4), among low educated youths (H5), and among females (H9).

⁵ The linear term was defined as respondents' age in years minus 12, whereas the logarithmic term was specified as the natural logarithm of respondents' age minus 11. As such, both terms equal 0 at age 12.

Table 1
Regression models for mean level and polarization.

	Egalitarianism		Ethnocentrism	
	Mean level	Polarization	Mean level	Polarization
Age – 12				
b	0.11 (0.02)	–0.01 (<0.01)	–0.12 (0.02)	
p-Value	<.001	.089	<.001	
ln(Age – 11)				
b	–1.11 (0.20)		0.78 (0.20)	–0.26 (0.05)
p-Value	<.001		<.001	<.001
Intercept				
b	7.68 (0.26)	1.47 (0.05)	3.57 (0.26)	2.28 (0.11)
p-Value	<.001	<.001	<.001	<.001
Model				
Respondents	1297	1297	1298	1298
Observations	3543	3543	3678	3678
R ² between	0.54%	0.00%	0.78%	0.49%
R ² within	2.15%	0.27%	1.45%	1.44%
R ² overall	1.14%	0.05%	0.93%	0.86%

Note. Coefficients are unstandardized with standard errors in parentheses.

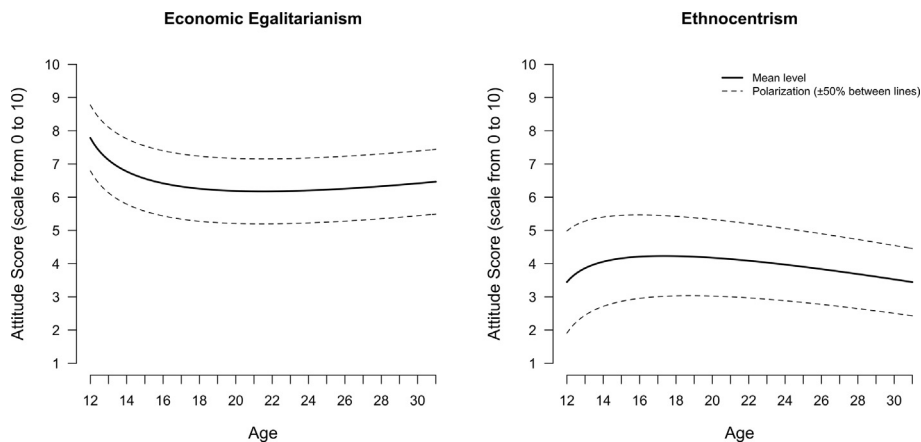


Fig. 1. Mean level and polarization of economic egalitarianism and ethnocentrism as a function of age. An estimated 50% of scores fall between the dashed lines (based on the normal distribution).

Table 2
Six-year rank-order stability of economic egalitarianism and ethnocentrism by age group.

	Age at wave 1			
	12–14	15–17	18–20	21–24
Egalitarianism				
$r_{\text{wave 1-wave 3}}$.13 (.08)	.44 (.06) ^a	.49 (.06) ^a	.57 (.05) ^{ab}
p-Value	.108	<.001	<.001	<.001
Ethnocentrism				
$r_{\text{wave 1-wave 3}}$.43 (.06) ^a	.55 (.05) ^a	.55 (.06) ^a	.69 (.05) ^b
p-Value	<.001	<.001	<.001	<.001

Note. Pearson’s *r* correlation coefficients with standard errors in parentheses. Coefficients that are not significantly different share a superscript (comparisons were made both between attitudes and between age groups).

Ethnocentrism

To examine the correlates of ethnocentrism, we again first specified separate models for all predictors to determine which should be included in subsequent models. Educational level, gender, parental SES, and urbanization revealed a bivariate

association with ethnocentrism and were consequently accepted for subsequent analyses (models 1, 3, and 4; see Table 4). Educational level ($\chi^2(3) = 17.60, p < .001$) and gender ($z = 2.95, p = .003$) furthermore revealed interactions with age (models 2 and 5; see Table 4) that were also accepted for subsequent models.

We proceeded by specifying a model with all predictors that were accepted in the previous step, but without interactions (model 6). This model was used to test our hypotheses regarding the main effects of educational level and gender. Both educational level ($\chi^2(3) = 106.98, p < .001$) and gender ($z = -2.17, p = .030$) displayed a main effect. As hypothesized, ethnocentrism was stronger among low educated youths (H5) and among males (H9).

Finally, we specified a model that adds the previously accepted interactions (model 7). This model was used to test our hypotheses regarding these interactions and regarding the main effect of parental SES and urbanization. Both educational level ($\chi^2(3) = 17.77, p < .001$) and gender ($z = 3.21, p = .001$) displayed a significant interaction with age. As hypothesized, the effect of educational level gradually became stronger with age (H6; see Fig. 2), whereas the effect of gender diminished (H10; see Fig. 2). This model furthermore revealed a main effect for parental SES ($\chi^2(3) = 10.01, p = .040$) and urbanization ($z = -2.49, p = .013$). As hypothesized, ethnocentrism was stronger among youth with low-SES parents (H4) and youths in rural areas (H7).

To test our hypothesis that youths change their attitudes accordingly when they reside in a new area, we switched the complete model (model 7) from random effects to fixed effects regression analysis with ordinary least squares (OLS) estimation. Unlike the random effects model, this method uses only within-individual variation to assess strictly longitudinal associations. Like the random effects model, the fixed effects model revealed an effect of urbanization ($t(927) = -2.56, p = .011, b = -0.04$). As such, our hypothesis (H8) that within-individual over-time changes in urbanization would relate to over-time changes in ethnocentrism was confirmed: moving to a more urban area was associated with a decrease in ethnocentrism.

Table 3
Regression models for the correlates of egalitarianism.

	Model					
	(1)	(2)	(3)	(4)	(5)	(6)
Parental SES						
$b_{\text{lowermiddle}}$	-0.22 (0.12)					-0.11 (0.13)
$b_{\text{centralmiddle}}$	-0.36 (0.13)					-0.23 (0.14)
$b_{\text{highermiddle}}$	-0.63 (0.13)					-0.47 (0.14)
b_{upper}	-0.74 (0.14)					-0.59 (0.15)
p-Value	<.001					<.001
Education						
b_{middle}		-0.25 (0.06)				-0.25 (0.07)
b_{high}		-0.42 (0.07)				-0.34 (0.08)
b_{highest}		-0.56 (0.08)				-0.41 (0.09)
p-Value		<.001				<.001
Religion						
$b_{\text{religious}}$			-0.08 (0.04)			-0.06 (0.04)
p-Value			.034			.176
Urbanization						
b				0.00 (0.01)		
p-Value				.689		
Gender						
b_{female}					0.29 (0.05)	0.32 (0.05)
p-Value					<.001	<.001
Intercept						
b	0.38 (0.12)	0.28 (0.05)	0.31 (0.03)	0.02 (0.06)	-0.17 (0.04)	0.34 (0.14)
p-Value	.002	<.001	.269	.745	<.001	.015
Model						
Respondents	988	1208	3538	1296	1270	926
Observations	2666	3312	1297	3537	3491	2510
R ² between	7.27%	4.63%	0.35%	0.00%	3.12%	13.71%
R ² within	0.00%	0.00%	0.02%	0.00%	0.00%	0.00%
R ² overall	4.77%	3.22%	0.29%	0.01%	2.04%	8.87%

Note. Coefficients are unstandardized with standard errors in parentheses.

Table 4
Regression models for the correlates of ethnocentrism.

	Model						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Parental SES							
b _{lowermiddle}	–0.26 (0.16)					–0.16 (0.15)	–0.17 (0.14)
b _{centralmiddle}	–0.42 (0.17)					–0.24 (0.15)	–0.25 (0.15)
b _{highermiddle}	–0.65 (0.16)					–0.35 (0.15)	–0.35 (0.15)
b _{upper}	–0.61 (0.17)					–0.28 (0.16)	–0.30 (0.15)
p-Value	<.001					.035	.040
Education							
b _{middle}		–0.41 (0.22)				–0.19 (0.08)	–0.32 (0.22)
b _{high}		–0.45 (0.23)				–0.58 (0.08)	–0.25 (0.24)
b _{highest}		–0.36 (0.24)				–0.76 (0.09)	–0.11 (0.25)
p-Value		.220				<.001	.489
Religion							
b _{religious}			0.05 (0.04)				
p-Value			.130				
Urbanization							
b				–0.03 (0.01)		–0.02 (0.01)	–0.02 (0.01)
p-Value				<.001		.008	.013
Gender							
b _{female}					–0.57 (0.15)	–0.11 (0.05)	–0.59 (0.16)
p-Value					<.001	.030	<.001
ln(Age – 11)							
b		0.07 (0.08)			–0.09 (0.05)		–0.04 (0.09)
p-Value		.411			.068		.644
Gender*lnAge							
b _{female}					0.19 (0.06)		0.23 (0.07)
p-Value					.003		.001
Educ*lnAge							
b _{middle}		0.05 (0.10)					0.06 (0.10)
b _{high}		–0.13 (0.10)					–0.16 (0.11)
b _{highest}		–0.28 (0.10)					–0.31 (0.12)
p-Value		<.001					<.001
Intercept							
b	0.44 (0.15)	0.33 (0.18)	–0.02 (0.03)	0.30 (0.12)	0.25 (0.06)	0.82 (0.17)	0.92 (0.26)
p-Value	.005	.072	.498	<.001	<.001	<.001	<.001
Model							
Respondents	990	1211	1298	3672	1271	928	928
Observations	2802	3436	3674	1297	3626	2624	2624
R ² between	4.81%	16.10%	0.01%	1.22%	1.37%	15.20%	16.29%
R ² within	0.00%	0.66%	0.14%	0.13%	0.19%	0.43%	1.38%
R ² overall	3.59%	12.50%	0.02%	0.92%	1.10%	11.20%	12.31%

Note. Coefficients are unstandardized with standard errors in parentheses. Educ = education; lnAge = ln(Age – 11).

Discussion

This study examined the development of two core political attitudes between age 12 and 31. Results revealed a curvilinear mean level development for both attitudes, with an increased opposition to economic redistribution and multiculturalism around late adolescence. Furthermore, both attitudes became increasingly stable with age, while ethnocentrism also became decreasingly polarized. Economic egalitarianism was stronger among low educated youths, females, and especially youths with low-SES parents. Ethnocentrism was stronger among males, youths in rural areas, and especially low educated youths. The effect of educational level on ethnocentrism increased with age, whereas the effect of gender diminished. Regional effects on ethnocentrism developed as youths resided in a new area.

By examining changes in mean level, stability, and polarization, as well as changes in correlates as aspects of development, three of the four aspects provided clear support for the idea that political attitudes mature during the

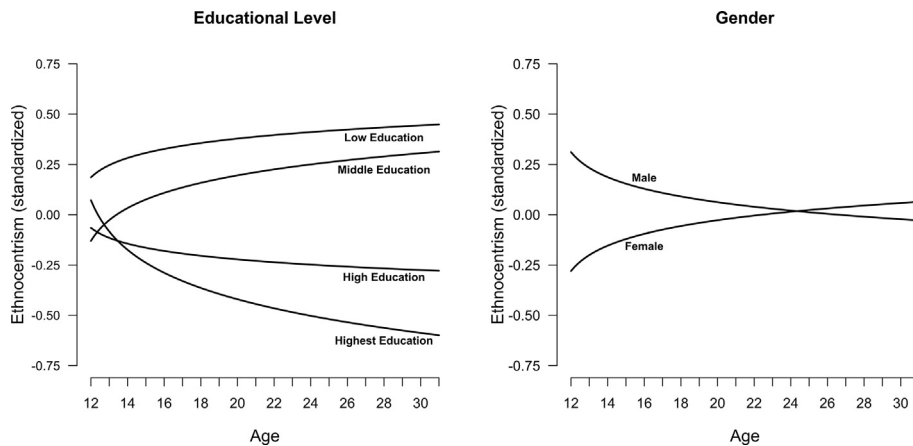


Fig. 2. Relative positions on ethnocentrism as a function of age by gender and educational level. Estimates from final model (model 7).

formative phase of adolescence (e.g., Alwin et al., 1991). Increases in stability of ethnocentrism and egalitarianism, decreases in polarization of ethnocentrism, and changes in correlates of ethnocentrism may all be viewed as signs of attitude maturation. The increasing stability of both egalitarianism and ethnocentrism indicates that these attitudes become less open to change during adolescence as they mature towards their strong adult stability (e.g., Sears & Funk, 1999). Likewise, decreases in the polarization of ethnocentrism can be viewed as maturation because they indicate a growing complexity and nuance in attitudes. As youths grow older, they may gain an increased capacity to think about politics in a more nuanced way. Finally, the changes in the correlates of ethnocentrism revealed that adolescents' attitudes gradually become associated with attitudes' adult correlates. During adolescence, youths' attitudes were relatively strongly related to their gender, which is consistent with gender intensification theory (Hill & Lynch, 1983). This gender effect diminished as youths grew older, whereas the effect of educational level on ethnocentrism gradually increased. Since educational level is the primary correlate of ethnocentrism among adults (e.g., Kriesi et al., 2008), this change in correlates can be viewed as an element of maturation. However, the maturation of political attitudes was not equally strong in adolescence and emerging adulthood. Results supported the idea that attitude development slows down as youths age from adolescence into emerging adulthood, since a logarithmic functional form best described age effects in almost all instances.

In contrast with these three aspects of maturation, the mean level of attitudes did not develop clearly in a single direction. Instead, this study found a curvilinear mean level development for both attitudes with ethnocentrism being strongest around late adolescence and egalitarianism being weakest around this same period. This suggests that late adolescence may be characterized by a temporary decrease in egalitarian attitudes as indicated by opposition to both economic redistribution and the multicultural society. Tentatively, this susceptibility to non-egalitarian views may be related to research that reveals a temporary dip in empathy during adolescence (Van der Graaff et al., 2014). Because this study found an increase in ethnocentrism only until about age 16, it contradicted previous research that revealed a similar increase after this age (e.g., 18–21 in Hooghe et al., 2013). This contradiction may be explained by a decreased sensitivity of the present study to period and cohort effects due to its cohort-sequential design.

Though this study investigated age-related changes in the associations between attitudes and their correlates primarily as an aspect of maturation, these changes may also provide some limited information on causality. In the Netherlands, youths are divided into educational tracks during adolescence. In this study, these were the precise years in which low and highly educated youths diverged in ethnocentrism. This finding supports the idea that educational tracks determine the subsequent development of ethnocentrism. If the association between educational level and ethnocentrism would be spurious, it might already have been present prior to adolescence. Likewise, the within-individual association that youths change their attitudes accordingly when they reside in a new area provides some support for causal explanations of region effects. The lack of age-related changes in the effect of parental SES suggests that this may be a constant correlate that affects attitudes regardless of age.

When comparing the development of egalitarianism and ethnocentrism, it appears that ethnocentrism already starts its development during childhood since it showed a substantial stability during early adolescence ($r = .43$). These findings are consistent with an extensive body of literature on the importance of early childhood for the development of core cultural orientations (e.g., Adorno, Frenkel-Brunswik, Levinson, & Nevitt Sanford, 1950; Raabe & Beelmann, 2011). Egalitarianism contrarily appears to develop at a somewhat later age, since it still showed a low stability during early adolescence ($r = .13$). Potentially, youths do not develop a clear view on economic issues until they progress in their educational and job careers. Furthermore, egalitarianism was primarily associated with parental SES, whereas

ethnocentrism was mainly correlated with educational level. Finally, we found that the association of ethnocentrism with several of its correlates changed with age, whereas no such changes were found for egalitarianism. These findings suggest that egalitarianism develops primarily along the lines of inheritable social class divides (i.e., parental SES), whereas ethnocentrism is determined gradually by youths' own life course (i.e., going through education or residing in a new area).

Strengths and limitations

Although it seems plausible that this study's findings largely generalize to other West European countries, since these share important political similarities with The Netherlands (Kriesi et al., 2008), some caution is required in generalizing beyond the context of The Netherlands during the 1990s. Some findings (e.g., regarding attitudes' stability) may generalize outside Western Europe as well, although we cannot be certain to what extent. Moreover, data were collected well before this article's time of writing. During this 1990s, both economic egalitarianism and ethnocentrism were important attitudes for Dutch voters (De Vries et al., 2013), though the breakthrough of anti-immigrant parties in The Netherlands (such as the LPF and the PVV) took place some years later during the 2000s (Pellikaan, de Lange, & Van der Meer, 2007). During this period, the importance of ethnocentrism has increased in The Netherlands, whereas the importance of economic egalitarianism has decreased (De Vries et al., 2013). While it seems plausible that many developmental processes remain constant over time, there is a possibility that some age effects are specific to a certain period (Delli Carpini, 1989). Specifically, it seems possible that some patterns that were found for ethnocentrism have become more pronounced since the 1990s due to the increased salience of the attitude, whereas patterns for egalitarianism may have become less pronounced. Hence, future research may focus on extending this study's findings across time and space.

Conclusion

In sum, this study investigated political attitude development among Dutch youths between age 12 and 31. Results provided clear support for the idea that political attitudes mature during the formative phase of adolescence and that this process gradually slows down during emerging adulthood. These findings are in line with the idea that personality and identity mature during adolescence (Meeus et al., 2010) and that acquiring a personal view on society and politics is a part of this process (Erikson, 1950). Furthermore, these results support developmental explanations for the association between attitudes and their correlates. Finally, findings suggest that attitudes on economic redistribution develop at a later age and primarily along the lines of inheritable social class divides, whereas attitudes on the multicultural society start developing at an earlier age and are predicted more by youths' own life course.

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Appendix 1

Items and item-test correlations (at wave 1) for economic egalitarianism and ethnocentrism.

Item	Item-test correlation
Economic egalitarianism	
"Workers still have to fight for their rights"	.65
"Differences in status between rich and poor should be smaller"	.84
"Differences between classes should be smaller"	.80
"Differences between low and high incomes should be smaller"	.85
"Differences in possession should be smaller"	.83
Ethnocentrism	
"Unemployed Turks should definitely be expelled"	.86
"Our social provisions are not meant for foreigners"	.85
"Foreigners pose a threat to our culture"	.86
"Foreign employees steal our jobs"	.82

Appendix 2

Functional form comparison for all age effects.

Model	Linear and logarithmic			Linear only		Logarithmic only	
	R ²	p lin.	p log.	R ²	p lin.	R ²	p log.
Egalitarianism							
Mean level	1.14%	<.001	<.001	0.22%	.018	0.56%	<.001
Polarization	0.05%	.599	.960	0.05%	.089	0.05%	.122
Parental SES	5.16%	.202	.395	5.09%	.079	5.04%	.188
Education	3.18%	.896	.911	3.15%	.494	3.18%	.562
Urbanization	0.09%	.122	.175	0.12%	.692	0.01%	.840
Religion	0.36%	.446	.379	0.29%	.820	0.31%	.621
Gender	2.08%	.971	.887	2.09%	.557	2.08%	.529
Ethnocentrism							
Mean level	0.93%	<.001	<.001	0.61%	<.001	0.30%	.141
Polarization	0.87%	.873	.039	0.69%	<.001	0.86%	<.001
Parental SES	3.82%	.533	.631	3.71%	.416	3.71%	.528
Education	12.57%	.684	.072	12.39%	.012	12.50%	.001
Urbanization	1.09%	.579	.759	1.09%	.472	1.03%	.648
Religion	0.05%	.670	.417	0.05%	.541	0.06%	.349
Gender	1.10%	.901	.299	1.03%	.018	1.10%	.009

Note. p lin. = p-value linear terms; p log. = p-value logarithmic terms. R²'s constitute the combined explained variance of predictors, age, and interactions between predictors and age.

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