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The atheistic factor? Explaining the link between atheistic beliefs and child-rearing values in 30 countries in Europe

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ABSTRACT



In this study, the link between atheistic beliefs and two child-rearing values (obedience and autonomy) is explored. Atheists would be more likely to show preferences for autonomy and less likely for obedience. Two individual-level explanations, namely educational attainment and expressive individualism, are tested. Moreover, the contextual effects of both religious climate and collectivistic-individualistic culture in a country are investigated. Using data from 30 countries from the European Values Study [(2011) 4th wave, *Integrated Dataset ZA4800*. Data File Version 3.0.0. (November 2011). Cologne: GESIS Data Archive. doi:10.4232/1.11004], it was found that both educational attainment and expressive individualism are explanations of why individuals with atheistic beliefs prefer autonomy more compared to other individuals. However, for obedience, expressive individualism could only explain the difference in preferences between religious individuals and atheists, but not the difference between atheists and those who are unsure about their religious belief. In addition, contrary to our expectations, no moderating effect of the religious context and collectivistic-individualistic culture on the relationship between atheistic beliefs and child-rearing values was found.

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KEYWORDS Atheism; autonomy; obedience; religion; collectivism; cross-national research

Introduction

There has been a long research interest in the relationship between religion and child-rearing values (Lenski 1961; Alwin 1986; Ellison and Sherkat 1993; Starks and Robinson 2005). Child-rearing values are usually defined as ‘characteristics that adults find most important or desirable in children’ (Ellison and Sherkat 1993, 313). In the literature, two

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child-rearing values are most often discussed: obedience and autonomy (Alwin 2001). Obedience refers to ‘conformity to external rules and obeying adult authority’, whereas autonomy is ‘the ability to think for themselves and reason independently’ (Halman and Sieben 2014: 122).

Early studies concerning the ‘Religious Factor’ in child-rearing values mainly focussed on differences between religious denominations (Lenski 1961). For example, Protestants were less likely to prefer obedience and more likely to value autonomy compared to Catholics (Lenski 1961). Later, differences in child-rearing preferences were found to be larger within religious denominations than between them (Alwin 1984), and the scientific attention shifted to religious behaviour, i.e. church attendance (Alwin 1986) and religious beliefs (Ellison and Sherkat 1993). Halman and Sieben (2014) observed that differences between Dutch denominations in both autonomy and obedience could be attributed to differences in church attendance, whereas differences in preferences for autonomy were explained by transcendental beliefs: those who believe in a personal God were less likely to pick autonomy as an important child-rearing value. In a later study using 42 European countries, Sieben and Halman (2017) confirmed the relationship between church attendance and preferences for obedience. Interestingly, the authors also found that the religious context mainly affected those who did *not* attend religious services. In more religious countries, these individuals are more likely to show preferences for obedience compared to their counterparts in more secularised countries.

This result is puzzling and calls for more research into the child-rearing preferences of the non-religious. So far no attempt has been made to explain why non-religious individuals prefer autonomy more and obedience less. Often-times, the non-religious are only taken into account as a reference category and it is assumed that their child-rearing preferences can be explained by their lack of religious beliefs. No elaborate theoretical framework on the link between non-religiosity and preferences for certain child-rearing values has been established. This study wants to contribute to the research field by looking into the child-rearing preferences of atheists, defined as ‘individuals who do not believe in God and/or find the concept of God meaningless or incoherent’ (Zuckerman 2009: 950). The number of individuals who do not believe in God is estimated to lie between 500 and 750 million around the world: the highest number is found in Europe (Zuckerman 2009).

It is important to investigate the preferences of individuals with atheistic beliefs next to religious individuals, because their preferences might be influenced by different factors compared to religious individuals

(Sieben and Halman 2017). In this study, we focus on two individual factors to explain the child-rearing preferences of atheists: educational attainment and moral individualism. In addition, Alwin (2001) argues that child-rearing values can provide insights into future social change, in particular changes in family life. After all, child-rearing values represent the type of children parents want to raise, and this might be influenced by personal religious beliefs, such as atheism.

Most of the studies mentioned so far focused on the United States, where religion plays a larger role in daily life (Sieben and Halman 2017). In Europe, the religious climate is different, with the secularised sphere in the western part, but also very religious countries such as Ireland and Poland (Casanova 2009). The number of individuals with atheistic beliefs highly varies between European countries: about 20% in the Czech Republic, Russia and France, compared to 1–3% in Poland and Portugal (Casanova 2009). Given the differences in religious contexts, Europe is a suitable place for studying the link between non-religiosity and child-rearing values, since it allows us to investigate to what extent the religious context in a country is of influence on the relationship between individuals' atheistic beliefs and their child-rearing values.

In addition, the cultural context will also influence the child-rearing preferences of atheists. In collectivistic cultures, parents would put more focus on 'interdependence and conformity to group rules, whereas in individualistic cultures, autonomy and self-reliance are more important' (Suizzo 2007: 507). We will therefore take the level of collectivism-individualism in a country into account as well, and employ data of the European Values Study (EVS 2011) to investigate the child-rearing preferences of individuals in 30 different countries.

Theory and hypotheses

In general, the absence of traditional religious beliefs is believed to be the reason for atheists to be less in favour of obedience and more of autonomy. This line of reasoning is rather indirect, as it is derived from the way in which religious beliefs are thought to work for religious individuals. One of the aspects mentioned in this discussion is biblical literalism (Ellison and Sherkat 1993), which refers to the conservative belief that the Bible represents the word of God and therefore is flawless. Given that the Bible contains passages that highlight children honouring their parents and obeying (parental) authority, those who are religious will prefer obedience in children. Moreover, children who are taught to be obedient would be less

likely to disagree with the values they are brought up with, including their religious faith (Ellison and Sherkat 1993). Since individuals with atheistic beliefs do not share these traditional religious views, they will be less likely to show preferences for obedience and more likely to prefer autonomy. Evidence to support this reasoning is provided by Manning (2015) who showed that many parents who are not religiously affiliated want to inform their child about religion and spirituality, but leave the decision about religious truth to the child itself. This focus on independent decision-making would lead to a preference for autonomy. This leads to the first hypothesis: *individuals with atheistic beliefs are more likely to prefer autonomy and less likely to prefer obedience (H1)*.

Atheistic beliefs and child-rearing preferences: individual explanations

However, several alternative explanations could be given for the child-rearing preferences of individuals with atheistic beliefs. In this study, we focus on educational attainment and expressive individualism. To start with educational attainment, many studies show that the higher educated prefer autonomy more and obedience less than their lower educated counterparts because of several reasons (Alwin 1984; Van der Slik *et al.* 2002). First, through education individuals are able to develop ‘a more secure personality which enhances the ability to develop autonomous and probably less conventional values and behaviours’ (Van der Slik *et al.* 2002: 490). Education expands the frame of reference and increases the awareness that there are several alternative ways of life, which would lead to tolerance towards different beliefs (Phelan *et al.* 1995). Higher educated parents might want to teach children about these alternative ways of life, which is why the autonomy to choose between those alternative ways of life would be more important for the higher educated. Second, schooling directly transfers progressive or tolerant values to students (Kalmijn and Kraaykamp 2007). Since autonomy is a more liberal child-rearing value, the higher educated will be more likely to prefer it. Third, cognitive abilities could play a role. Individuals with more cognitive abilities will be more likely to handle complicated matters, are more open to experience, and develop a more objective view, given that they more are able to consider a range of distinct views (Kalmijn and Kraaykamp 2007). On the other hand, individuals that reason at a lower level are generally more likely to use their own practical knowledge or traditional norms as a source for parenting values (Dékovic and Gerris 1992). Finally, educational attainment

and work complexity are related. Kohn (1969) showed that those who have more autonomy in their work have a preference for autonomy. Since higher educated usually have more self-direction at work, the link between education and child-rearing preferences can be explained.

Several studies show that individuals with atheistic beliefs are higher educated compared to religious individuals (Sherkat 2008; Zuckerman 2009). In addition, atheists are overrepresented in academia (Caldwell-Harris 2012). Taken all of this together, the second hypothesis is: *the relationship between atheistic beliefs and preferences for autonomy and obedience can be explained by atheists having a higher educational level (H2).*

The second individual-level mechanism to explain child-rearing preferences of atheists focuses on moral views. In this context, Davis and Robinson (2001) distinguish between modernists (which they argue can both be religious believers and secularists) and religiously orthodox. The religiously orthodox believe there is a divine source that determines whether actions are good or evil and that the moral rules provided in religious texts apply in every situation. On the other hand, modernists believe that 'individuals themselves are the ultimate judges of what is morally right and wrong and that they are responsible for determining the course of their lives' (Davis and Robinson 2001: 24). Because atheists usually have more modernistic views, they will be more likely to teach children to think independently in order to decide for themselves what is right and wrong. This is confirmed by the finding that compared to religious people, atheists are less dogmatic and more open-minded and non-conformist (Zuckerman 2009; Caldwell-Harris 2012). These ideas are all linked to expressive individualism, which is a form of individualism associated with moral independence and innovativeness (Halman 1996). Since individuals with atheistic beliefs are expected to have a higher level of expressive individualism, they will value autonomy more, whereas religious individuals, who have a low level of expressive individualism will value obedience more. From this, the third hypothesis is derived: *the relationship between atheistic beliefs and preferences for autonomy and obedience can be explained by the expressive individualistic moral standards of atheists (H3).*

Atheistic beliefs and child-rearing values: moderating contexts

As mentioned in the introduction, contexts shape the child-rearing values of individuals with atheistic beliefs too. For example, Tamis-LeMonda

et al. (2008) mention that the orientations of parents reflect the current values and norms of the cultures they are a part of. Since different countries have different cultures, parents in different countries will have different opinions on child-rearing. Two moderating contextual influences will be discussed: the religious context (i.e. secularisation) and collectivistic versus individualistic cultures.

A key characteristic of secularisation is that religion loses its importance in society and in individuals' daily lives. Religion thus becomes less important for prescribing (child-rearing) values in secular countries. Several mechanisms account for this. First, in countries where religion is less prominent, less traditional religious messages will be displayed through institutions such as media outlets, educational system, or politics (Sieben and Halman 2017). Second, religious beliefs are less and less 'ratified by the social environment' (Storm 2016: 116) in these countries. Norms associated with religion need to be approved of by others in their network (e.g. family, friends) to be effective. If the amount of religious individuals is small in a country, interaction with likeminded religious individuals is limited (Moore and Vanneman 2003). On the other hand, atheists who live in religious countries might find that their preferences for autonomy are not approved of by the people in their network, or by the social and political institutions, which is why they might be influenced to be more in favour of obedience.

As mentioned before, a similar effect was found by Sieben and Halman (2017), who show that individuals who do not attend religious services and live in a religious country prefer obedience more and autonomy less compared to their counterparts in more secularised countries. This effect could exist as well for individuals with atheistic beliefs who live in more religious countries compared to those in more secular countries. Through social interaction with religious individuals and information channels such as media or work, atheists could be influenced to show more preference for obedience (and less for autonomy). At the same time, given that religion has less influence in prescribing values and norms in secularised countries, child-rearing values in these countries will be less influenced by religion. A larger role will be played by other factors such as educational level. This implies that having atheistic beliefs will have less influence on the preference for certain child-rearing values in these countries. This concludes the fourth hypothesis: *the relationship between atheistic beliefs and preferences for autonomy and obedience will be weaker in countries with a higher level of secularisation (H4).*

Next to the religious context, a country's collectivistic versus individualistic culture may play a moderating role in the relationship between atheistic beliefs and child-rearing values. The main difference between collectivistic and individualistic cultures, as presented by de Mooij and Hofstede (2010) is that in individualistic cultures people are 'I'-conscious, which means that one's identity is dependent on the person itself, whereas in collectivistic cultures, people are 'we'-conscious meaning that one's identity is derived from the place occupied in the social system. Because of this, different ideals for children are issued between the two cultures. The individualistic model reflects a preference for 'independence and self-reliance, whereas the collectivistic model revolves around values of interdependence, conformity to group norms and relatedness' (Suizzo 2007: 507). Parents from an individualistic culture are described as encouraging children to make independent decisions and have weaker ties to the group, while parents from collectivistic cultures would focus more on promoting interdependence and development of strong group ties (Tamis-LeMonda *et al.* 2008). Since obedience is important to achieve harmony in the group, they would value this more.

On the other hand, autonomy would be valued less given that making independent decisions does not match with the focus on group harmony which is present in collectivistic cultures. Moreover, the same argument of ratification by the social environment made for religion could apply to collectivistic-individualistic cultures as well. In order to be effective, norms associated with collectivistic culture need to be approved of by the social environment and/or by social and political institutions. Atheists who live in collectivistic countries might find that their more liberal child-rearing attitudes are influenced by the collectivistic views of other individuals in their network. Thus, although atheists are more likely to show preferences for autonomy and less for obedience because of their higher educational level and expressive individualism, they might prefer obedience more if they live in a country with a more collectivistic culture. This would weaken the link between atheistic beliefs and child-rearing values: *the relationship between atheistic beliefs and preferences for autonomy and obedience will be weaker in countries with a collectivistic culture (H5).*

Data and methods

We test our hypotheses on data from the fourth wave of the EVS (2011), which includes information on religious, family and political views of

respondents of 18 years and older from 47 European countries. The data is collected using stratified multi-stage random sampling and standardised questionnaires employed in face-to-face interviews. Strict methodological guidelines are applied to ensure cross-country-comparability. We exclude data from twelve countries, because there is no information available on collectivistic-individualistic culture. Moreover, data from Turkey, Romania and Ireland are excluded given a high number of missing values on both child-rearing values. Table 1 shows descriptive statistics; Table 2 presents macro descriptive statistics per country.

Child-rearing values

Respondents were asked to choose a maximum of five qualities they considered to be especially important from a list of eleven qualities which children can be encouraged to learn at home. These qualities were: (a) good manners, (b) independence, (c) hard work, (d) feeling of responsibility, (e) imagination, (f) tolerance and respect for other people, (g) thrift,

Table 1. Descriptive statistics.

	Minimum	Maximum	Mean	Standard deviation
<i>Individual level variables (N = 37,645)</i>				
<i>Child-rearing values</i>				
Autonomy	0	1	0.487	
Obedience	0	1	0.246	
<i>Atheistic beliefs</i>				
Personal God	0	1	0.364	
Unsure about belief	0	1	0.501	
No God, spirit or life force	0	1	0.135	
<i>Educational level</i>				
Pre-primary/none	0	1	0.024	
Primary	0	1	0.093	
Lower secondary	0	1	0.190	
Upper secondary	0	1	0.409	
Post-secondary	0	1	0.039	
First stage tertiary	0	1	0.237	
Second stage tertiary	0	1	0.008	
<i>Expressive individualism</i>				
Clear guidelines about good/evil	0	1	0.249	
Justified by special circumstances	0	1	0.351	
Depends entirely on circumstances	0	1	0.400	
<i>Control variables</i>				
Age	18	108	47.940	17.801
Gender	0	1	0.559	
Having a partner	0	1	0.550	
Having children	0	1	0.719	
<i>Country level variables (N = 30)</i>				
Average church attendance	2.250	5.690	3.206	0.827
Collectivism–individualism index	20	89	56.322	18.759
GDP per capita (US\$1000)	3.890	112.850	35.488	25.871

Source: EVS (2011).

Table 2. Country characteristics ($N = 30$).

Country	Number of cases	Preference for autonomy (%)	Preference for obedience (%)	Average service attendance	Collectivism–individualism index	GDP per capita (US \$1000)
Albania	1238	33.4	26.5	2.856	20	4.370
Austria	1359	64.7	13.6	3.270	55	51.386
Belgium	1483	33.0	36.5	2.496	75	48.420
Bulgaria	969	35.6	13.6	3.321	55	7.296
Croatia	1120	35.2	35.3	3.920	33	15.893
Czech Republic	1293	61.6	19.0	2.265	58	22.649
Denmark	1423	80.0	13.6	2.790	74	64.182
Estonia	1405	24.3	27.0	2.527	60	18.094
Finland	1000	49.2	19.6	2.517	63	53.401
France	1457	26.9	27.0	2.249	71	45.413
Germany	1845	72.1	9.4	2.500	67	45.699
Great Britain	1230	46.7	37.0	2.483	89	45.195
Greece	1449	41.5	24.6	4.374	35	31.686
Hungary	1062	71.0	28.5	2.613	80	15.649
Italy	1141	35.5	24.5	4.297	76	40.640
Latvia	1096	64.3	17.7	3.014	70	16.323
Lithuania	1227	74.5	20.2	3.743	60	14.961
Luxembourg	1287	46.9	21.8	2.794	60	112.851
Malta	1248	33.9	29.2	5.695	59	20.900
Netherlands	1466	47.1	29.2	2.918	80	56.928
Norway	1073	86.3	19.4	2.597	69	96.880
Poland	1094	34.1	28.9	5.089	60	13.906
Portugal	1340	38.5	28.1	3.981	27	24.815
Russian Federation	1164	33.0	27.9	2.903	39	11.635
Serbia	1319	36.5	35.3	3.316	25	6.701
Slovak Republic	1031	64.8	22.4	4.039	52	18.604
Slovenia	1102	72.2	21.5	3.223	27	27.501
Spain	1343	38.3	29.5	2.818	51	35.578
Switzerland	1132	64.2	14.2	2.724	68	72.119
Ukraine	1249	21.8	39.3	2.483	25	3.890

Source: EVS (2011), Hofstede et al. (2010), World Bank (2008).

saving money and things, (h) determination, perseverance, (i) religious faith, (j) unselfishness and (k) obedience. We focus on independence and obedience. According to Alwin (1989: 202), independence can be viewed as ‘the crucial quality associated with autonomy’, which is why it was chosen to represent autonomy.¹ It should be noted that respondents who picked more than five qualities are left out of the analysis. Two separate models will be employed for the preference of obedience and autonomy given that Alwin (2001) mentions that these two concepts should be viewed separately, to the extent that they are developed

¹Although the two concepts overlap, Chirkov et al. (2003) found that autonomy and independence can be differentiated. Results might therefore be sensitive to the specific concept used.

independently of each other. Indeed, respondents could pick both child-rearing values (6.6% in the current sample).

Finally, although some studies on child-rearing values focus on samples of parents, the current study focuses on the general public. Acevedo *et al.* (2015) mention that the use of broader samples is informative given that these samples give a good outlook on the climate in which parents are located and which type of parenting feedback they receive.

Atheistic beliefs

Respondents were asked to indicate which of the following statements was closest to their personal beliefs: ‘there is a personal God’, ‘there is some spirit or life force’, ‘I don’t really know what to think’ and ‘I don’t really think there is any sort of spirit, God or life force’. Following the reasoning by Halman and Sieben (2014), respondents are classified as being atheistic if they agree with the last statement. Those who mention they believe in a personal God are classified as being religious since this statement comes closest to the traditional theistic belief (Halman and Sieben 2014). Because no explicit hypotheses are formulated about transcendentalists (those who believe in the supernatural) and agnostics (those who do not know what to think), they are recoded into one category of individuals that are unsure about their religious beliefs.² Dummy variables are created in order to compare these three categories on child-rearing preferences using atheistic beliefs as the reference category.

Individual characteristics

Educational attainment is measured by asking respondents about their highest level of education completed. Answer categories are made internationally comparable by using the ISCED classification, ranging from ‘pre-primary education or no education’, ‘primary/first stage basic education’, ‘lower secondary/second stage basic education’, ‘post-secondary non-tertiary education’, ‘first stage tertiary education’ to ‘second stage of tertiary education’. Dummies are used for every category of educational level: the highest educational level is the reference category.

The second individual characteristic concerns expressive individualism. This is measured by the following question: ‘Here are three statements

²For random slope multilevel models, problems with convergence can arise if some categories have a low number of observations (West *et al.* 2007). The random slope models with four dummies did not converge because of this, which forms an additional reason to recode the two categories into one.

which people sometimes make when discussing good and evil. Which one comes closest to your own point of view?

- A. There are absolutely clear guidelines about what is good and what is evil. These always apply to everyone, whatever the circumstances.
- B. There are absolutely clear guidelines about what is good and what is evil. However, deviating from these guidelines is sometimes justified by special circumstances.
- C. There can never be absolutely clear guidelines about what is good and what is evil. What is good and what is evil depends entirely on the circumstances at the time.'

Following Halman (1996), the first statement represents a low score on expressive individualism, whereas the third statement indicates a high score on expressive individualism. The second statement represents a more neutral option. Three dummy variables are created; the third statement is taken as the reference category.

Contextual characteristics

Two country-level variables are distinguished: the level of secularisation and the level of collectivism-individualism. Following Ruitter and de Graaf (2006), the level of secularisation is measured by the average attendance of religious services in a country. Respondents in EVS (2011) were asked to indicate how often they attend religious services: 'more than once a week', 'once a week', 'once a month', 'only on specific holy days', 'once a year', 'less often' and 'never, practically never'. Based on their answers, average attendance per country is calculated. Countries with a lower average attendance rate are more secular than countries with a higher average attendance rate. In addition we employ one of the most well-known cross-national measures of collectivistic-individualistic culture, developed by Hofstede *et al.* (2010). This country index ranges from 0 (very collectivistic) to 100 (very individualistic).

Control variables

The analyses are statistically controlled for variables that are associated with both atheistic beliefs and child-rearing preferences. The first control variable is age given that there is much evidence that atheists are younger compared to religious individuals (Zuckerman 2009).

Moreover, gender will be taken into account since men are more likely to be atheistic than women (Baker and Smith 2009). In addition, older individuals and men are more likely to show preferences for obedience and less for autonomy (Ellison and Sherkat 1993). Finally, it is taken into account whether the respondent has a partner and/or one or more children.

In addition, an important country-level characteristic that is controlled for is economic prosperity, measured by GDP per capita (in 1000 USD). Zuckerman (2009) shows that the number of atheists is lower in countries with lower prosperity. Moreover, Hofstede *et al.* (2010) mention that in general, more wealthy countries are more individualistic, whereas poorer countries are more collectivistic. The data on economic prosperity was retrieved from the World Bank (2008).

Analytical strategy

Linear probability multilevel (LPM) models will be employed. Multilevel models account for clustering in the data (individuals are nested in countries). In addition, LPM treats our dichotomous dependent variable as continuous. In contrast to logistic regression models, coefficients between different LPM models can be compared and interpreted as probabilities. A drawback is that LPM might generate inefficient models and unrealistic probabilities (higher than one or lower than zero). However, these disadvantages are outweighed by the benefits, making LPM a suitable option when the dependent variable is dichotomous (Mood 2010).

The models are build up stepwise. Model 1 includes atheistic beliefs, the country-level characteristics and the control variables as fixed effects. In Model 2, the dummies for educational attainment and expressive individualism are added. In Model 3, random slopes for the two dummies of atheistic beliefs will be added to verify whether there is between-country variation in the relationship between atheistic beliefs and child-rearing values. Finally, Model 4 contains both cross-level interactions to test the moderating effect of religious context and collectivistic-individualistic cultures.

Results

Figure 1 shows that individuals who believe in a personal God are more likely (28.6%) to choose obedience as an important value for children compared to individuals who are unsure about their beliefs (23%) and

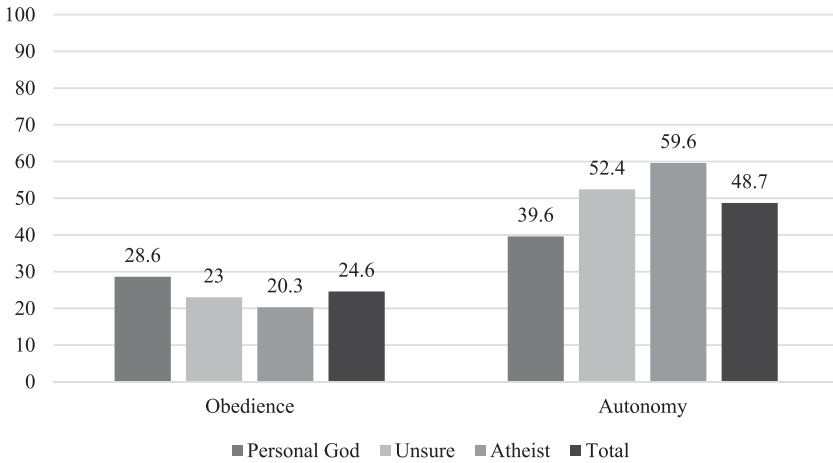


Figure 1. Preferences for obedience and autonomy by atheistic beliefs (in %). Source: EVS (2011).

atheists (20.3%). With respect to autonomy, 39.6% of the religious individuals prefer this value compared to 59.6% of those with atheistic beliefs. In addition, 52.4% of the individuals who are unsure mention autonomy as being important. Overall, obedience is preferred less than autonomy (24.6% versus 48.7%). Moreover, there is a lot of variation in child-rearing preferences across countries. As presented in Table 2, the preference for obedience seems to be the highest in Ukraine (39.3%) and the lowest in Germany (9.4%), whereas the preference for autonomy is highest in Norway (86.3%) compared to Ukraine (21.8%).

Multilevel analyses for obedience

The results of the LPM model will be discussed first for obedience (Table 3). From the empty model (not shown in table), the intraclass correlation coefficient (ICC = 0.031) was calculated,³ indicating that only 3.1% of the differences in preferences for obedience can be attributed to country differences. From the first model, it can be concluded that those who believe in a personal God ($b = 0.058$, $p < .01$) and those who are unsure about their belief ($b = 0.016$, $p < .05$) are more likely to prefer obedience compared to atheists.

In Model 2 both explanatory variables (educational attainment and expressive individualism) are added. The coefficients for educational

³The ICC is calculated by dividing country-level variance by the total of individual variance and country-level variance: $0.0057 / (0.1797 + 0.0057) = 0.031$.

Table 3. LPM models on preferences for obedience ($N = 37,645$ in 30 countries).

	Model 1		Model 2		Model 3	
	<i>B</i>	S.E.	<i>B</i>	S.E.	<i>B</i>	S.E.
<i>Individual level variables</i>						
Constant	0.249	0.079	0.175	0.081	0.180	0.079
<i>Atheistic beliefs</i>						
Personal God	0.061**	0.008	0.048**	0.008	0.046**	0.010
Unsure about belief	0.016*	0.007	0.015*	0.007	0.014	0.007
<i>Educational level</i>						
Pre-primary/none			0.241**	0.028	0.242**	0.028
Primary			0.209**	0.025	0.210**	0.025
Lower secondary			0.180**	0.024	0.181**	0.024
Upper secondary			0.116**	0.024	0.117**	0.024
Post-secondary non-tertiary			0.109**	0.026	0.110**	0.026
First stage tertiary			0.042	0.023	0.042	0.024
<i>Moral individualism</i>						
Clear guidelines			0.020**	0.006	0.021**	0.006
Special circumstances			0.002	0.005	0.002	0.005
<i>Control variables</i>						
Age	0.001**	0.001	0.000	0.000	-0.000	0.000
Gender	-0.022**	0.005	-0.022**	0.004	-0.022**	0.004
Partner	-0.012**	0.005	-0.002	0.005	-0.002	0.005
Child	-0.004	0.006	-0.010	0.006	-0.010	0.006
<i>Country level variables</i>						
Average service attendance	-0.002	0.017	-0.009	0.017	-0.006	0.016
Collectivism-individualism index	-0.000	0.001	0.000	0.001	-0.000	0.001
GDP (US\$1000)	-0.001	0.001	-0.001	0.001	-0.001	0.001
<i>Random effects</i>						
Individual variance	0.179**	0.001	0.176**	0.001	0.176**	0.001
Country level variance						
Intercept variance	0.005**	0.001	0.005**	0.001	0.004**	0.002
Variance random slope (Personal God)					0.001	0.001
Covariance					0.000	0.001
Intercept variance					-0.001	0.001
Variance random slope (Unsure)					0.001	0.001
Covariance					0.001	0.001

* $P < .05$;** $P < .01$.

Source: EVS (2011).

attainment show that higher educated individuals are less likely to prefer obedience. Furthermore, those who are low in expressive individualism, i.e. those who think there are clear guidelines about good and evil, are more in favour of obedience compared to those who are high in expressive individualism, i.e. those who think what is good and evil depends on the circumstances ($b = 0.020$, $p < .01$). On the other hand, no difference in obedience was found between those from the middle category and those who are high in expressive individualism ($b = 0.002$, $p = .684$). Compared to Model 1, the coefficient of preferring obedience for individuals who believe in a personal God compared to atheists decreased by 21.3% (from $b = 0.061$ to $b = 0.048$), whereas, for those who are unsure about their belief a decrease of 6.3% (from 0.016 to 0.015) is noticed.

However, the differences in preferences for obedience between the three groups remain significant ($b = 0.048$, $p < .01$ and $b = 0.015$, $p < .05$ respectively).

Additional analyses in which educational attainment and expressive individualism are added separately show that educational level indeed partly mediates the relationship between atheistic beliefs and preference for obedience, which is in line with H2. In addition, there seems to be no difference in the coefficients between those who are unsure between Model 1 and the additional model with expressive individualism only ($b = 0.016$ in both models). Thus, for those who are unsure about their belief, differences in expressive individualism do not explain differences in their preferences for autonomy. Only for those who believe in a personal God, expressive individualism partly mediates the link between their religious beliefs and preferences for obedience, partly confirming H3.

In Model 3, the random slopes for atheistic beliefs are added. The results show that the relationship between atheistic beliefs (versus either religious beliefs or being unsure about your belief) and preferences for obedience does not significantly vary between countries ($s^2 = 0.001$, $p = .154$ and $s^2 = 0.001$, $p = .123$). Given these outcomes, it is not informative to test the cross-level interactions: the relationship between atheistic beliefs and obedience is the same in all countries.

Multilevel analyses for autonomy

Next, the results for autonomy will be discussed. The intraclass correlation coefficient (ICC = 0.133)⁴ indicates that 13.3% of the differences in preferences for autonomy can be attributed to country differences. This ICC is higher compared to obedience, probably because the country variation in autonomy is higher compared to obedience (see Table 2). Model 1 in Table 4 shows that both religious individuals ($b = -0.128$, $p < .01$) and those who are unsure about their religious beliefs ($b = -0.048$, $p < .01$) are less likely to prefer autonomy compared to atheists, conforming H1.

In Model 2, both educational level and expressive individualism are added. Individuals with a higher educational level are more likely to show preferences for autonomy. The largest difference was found between individuals that attended second stage tertiary education compared to those who only attended pre-primary or no education ($b = -0.232$, $p < .01$). Furthermore, individuals who are high in expressive individualism, i.e. those who believe that there are clear guidelines about good

⁴ $0.033/(0.033 + 0.217) = 0.133$.

Table 4. LPM models on preferences for autonomy ($N = 37,645$ in 30 countries).

	Model 1		Model 2		Model 3		Model 4	
	<i>B</i>	S.E.	<i>B</i>	S.E.	<i>B</i>	S.E.	<i>B</i>	S.E.
<i>Individual level variables</i>								
Constant	0.535	0.177	0.627	0.175	0.635	0.175	0.601	0.184
<i>Atheistic beliefs</i>								
Personal God	-0.128**	0.008	-0.113**	0.008	-0.114**	0.013	-0.060	0.091
Unsure about belief	-0.048**	0.007	-0.047**	0.007	-0.048**	0.010	-0.029	0.076
<i>Educational attainment</i>								
Pre-primary/none			-0.232**	0.031	-0.229**	0.031	-0.230**	0.030
Primary			-0.201**	0.027	-0.200**	0.027	-0.201**	0.027
Lower secondary			-0.144**	0.027	-0.146**	0.027	-0.146**	0.027
Upper secondary			-0.109**	0.026	-0.110**	0.026	-0.110**	0.026
Post-secondary non tertiary			-0.095**	0.029	-0.098**	0.029	-0.098**	0.029
First stage tertiary			-0.065*	0.027	-0.065*	0.026	-0.066*	0.026
<i>Moral individualism</i>								
Clear guidelines			-0.059**	0.006	-0.060**	0.006	-0.058**	0.006
Special circumstances			-0.030**	0.006	-0.026**	0.006	-0.030**	0.006
<i>Control variables</i>								
Age	-0.003**	0.000	-0.002**	0.000	-0.002**	0.000	-0.002**	0.000
Gender	0.023**	0.005	0.023**	0.005	0.023**	0.005	0.023**	0.005
Partner	-0.003	0.006	-0.009	0.005	-0.009	0.005	-0.009	0.005
Child	0.032**	0.007	0.035**	0.007	0.035**	0.007	0.037**	0.007
<i>Country level variables</i>								
Average service attendance	-0.005	0.038	0.002	0.037	0.005	0.037	0.018	0.040
Collectivism–individualism index	0.002	0.002	0.001	0.002	0.001	0.002	0.001	0.002
GDP (US\$1000)	0.002	0.001	0.002	0.001	0.002	0.001	0.002	0.001
<i>Cross-level interactions</i>								
Personal God × Average service attendance							-0.015	0.020
Unsure × Average service attendance							-0.022	0.018
Personal God × Collectivism–individualism index							-0.002	0.001
Unsure × Collectivism–individualism index							0.001	0.001
<i>Random effects</i>								
Individual level variance	0.213**	0.002	0.211**	0.002	0.210**	0.002	0.209**	0.001
<i>Country level variance</i>								
Intercept variance	0.025**	0.007	0.024**	0.006	0.024**	0.006	0.024**	0.006
Slope variance (Personal God)					0.003*	0.001	0.003*	0.001
Covariance					-0.001	0.002	-0.001	0.002
Intercept variance					-0.000	0.002	0.000	0.002
Slope variance (Unsure)					0.001	0.001	0.001	0.001
Covariance					0.001	0.001	0.001	0.001

* $P < .05$;

** $P < .01$.

Source: EVS (2011).

and evil ($b = -0.059$, $p < .01$) and those who are medium in expressive individualism, i.e. those who believe that deviance is sometimes justified ($b = -0.030$, $p < .01$) are less likely to prefer autonomy. Adding these explanatory variables, decreases the coefficient for those who believe in a Personal God with 11.7% compared to the first model (from $b = -0.128$ to $b = -0.113$), whereas for those who are unsure about their belief a decrease of 2.1% is noticed (from $b = -0.048$ to $b = -0.047$). Additional analyses, again modelling both individual explanations separately show that adding only education decreases the coefficient of religious individuals from -0.128 to -0.120 , whereas no difference is noticed for unsure individuals. In addition, including only expressive individualism, the coefficient for religious individuals decreases (from $b = -0.128$ to $b = -0.121$), whereas for unsure individuals the coefficient decreases only slightly (from -0.048 to -0.047). This implies that education mediates the relationship between being religious and preference for autonomy, whereas this is not the case for those who are unsure. Moreover, expressive individualism seems to account for differences in preferences in autonomy for both religious and unsure individuals. However, the differences in preferences for autonomy between religious and unsure individuals compared to atheists remain significant at an alpha level of 0.01. Thus, educational level and expressive individualism partly explain the relationship between atheistic beliefs and autonomy, conforming H2 and H3.

Model 3 includes random slopes for both dummies of the atheistic beliefs. For those who believe in a personal God, the random slope ($s^2 = -0.003$, $p < .05$) differs significantly per country. This means that the relationship between atheistic beliefs and preferences for autonomy varies across countries. Therefore, we add cross-level interactions in Model 4. The interaction terms with secularisation are not significant for both those who are religious and those who are unsure, indicating that there is no weakening effect of living in a secular country on the association between atheistic beliefs and preferences for autonomy, as predicted in H4. In addition, the cross-level interactions for collectivism-individualism is not significant either. This implies that living in a collectivistic culture does not weaken the relationship between atheistic beliefs and preferences for autonomy, as stated in H5. These results are confirmed in additional analyses, where both cross-level interactions are included separately. Moreover, variation in random slopes is still significant, indicating that the cross-level interactions are not able to explain country variation in preferences for autonomy.

Conclusion and discussion

There is a vast body of research concerning the link between religion and child-rearing values. However, not much theoretical progress has been made concerning the child-rearing preferences of atheists. Often times, differences in child-rearing preferences between atheists and religious individuals are simply attributed to the fact that atheists are not religious. Since atheists do not believe in religious aspects associated with obedience such as Biblical literacy, this could be an explanation for their more negative attitude towards obedience. However, we argued that there might be alternative explanations: educational level and expressive individualism. Moreover, it was stated that next to individual factors, contextual factors might influence the relationship between atheistic beliefs and child-rearing preferences. After all, parents are likely to teach children the values which they think are useful to be successful in the society they live in (Tamis-LeMonda *et al.* 2008). Thus, obedience or autonomy might be valued more in certain societies compared to others depending on the country's religious context and collectivistic-individualistic culture.

In line with our expectations, atheists were less likely to prefer obedience and more likely to prefer autonomy compared to religious individuals and individuals who were unsure about their religious beliefs. Part of this relationship could be explained by atheists having a higher educational level. Several theoretical explanations for the link between educational level and child-rearing values can be suggested. For example, educational attainment would go together with the development of more liberal views and higher cognitive reasoning. However, more research is needed to determine which of the factors associated with a higher educational level is most influential in the relationship between atheistic beliefs and child-rearing values.

In addition, we showed that differences in expressive individualism could explain differences in child-rearing preferences between atheists, religious individuals and those who are unsure about their belief. Religious individuals would be more likely to believe in a divine source that determines whether your actions are right or wrong, whereas those who do not believe in God would be more likely to determine for themselves what is right and wrong, which is why they would prefer autonomy more. Interestingly, for obedience only significant differences between the highest and the lowest level of expressive individualism were observed, whereas for autonomy there were differences between all three levels of expressive individualism. Thus, expressive individualism could explain differences in obedience

between religious individuals and atheists, but not between those who were unsure about their belief and atheists. On the other hand, expressive individualism was able to explain differences in autonomy for both religious individuals and those who were unsure compared to atheists.

Furthermore, it was argued that the country's religious context would moderate the relationship between atheistic beliefs and child-rearing values. However, for obedience, we observed no significant random slopes, which implies that the relationship between atheistic beliefs and preferences for obedience is the same in all countries and thus no contextual effect on this relationship exist. For autonomy on the other hand, the relationship significantly varies across countries. However, no significant moderating effect of religious context was found, indicating that living in a secular country does not weaken the relationship between atheistic beliefs and child-rearing preferences. Maybe the religious contextual effect is dependent on whether atheists strongly identify with their atheistic belief. For example, Zuckerman (2012) describes the difference between losing faith in Scandinavia versus in the United States. Through in-depth interviews, he discovered that this process was 'not a big deal' in Scandinavia, whereas in the United States individuals described it as a personal struggle. Moreover, Scandinavian individuals who became atheist are unconcerned about religion, whereas those in the United States tend to oppose religion. Atheists are heavily stigmatised in the United States, whereas this is not the case in Scandinavia. Following this reasoning, atheists in the United States might be more inclined to oppose traditional religious views and thus show stronger preferences for autonomy compared to their European counterparts since they seem to more consciously choose their atheistic lifestyle (Zuckerman 2012). Unfortunately, no information about atheistic identification is available in EVS (2011). Further research is needed to look into this topic.

In addition, the United States is an interesting case as it is a highly individualistic country. The results of our study showed that living in a collectivistic or individualistic culture does not seem to influence the preferences for autonomy of either of the compared groups. Maybe this is due to the relatively small variation in country scores on the collectivism-individualism index in Europe. It would be interesting to expand the study with countries across the world, and find out whether living in a truly individualistic (or truly collectivistic) culture influences the relationship between atheistic beliefs and preferences for autonomy.

In conclusion, this study has shed light on factors that explain the relationship between atheistic beliefs and child-rearing values. However,

further research is needed to gain more insight into the individual and contextual factors that influence child-rearing preferences of atheists. In order to find out more about the motives atheists (and individuals with other religious and non-religious beliefs) have for preferring certain child-rearing values, a qualitative approach would be helpful as well, e.g. to establish to what extent and why individuals identify with atheism and how this influences their child-rearing values. Moreover, in some countries, atheists are a very small minority. For example, in Malta, one of the most religious countries in Europe, the EVS sample includes only 1% of atheists. A qualitative approach might do more justice to the influences of religious context on child-rearing values of atheists in very religious countries because it is possible to focus on these minority groups.

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The data used in this study can be downloaded free of charge after registration at GESIS. Please visit www.europeanvaluesstudy.eu for more information. All additional analyses are available upon request from the first author.

Disclosure statement

No potential conflict of interest was reported by the authors.

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