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Religiosity and the realisation of fertility intentions: A comparative study of eight European countries

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Abstract

Previous studies have consistently shown that religious persons both intend and have more children than their non-religious peers. However, it is yet unknown whether their higher number of children entirely reflects their higher intentions or whether religious persons also realise their intentions more often than non-religious individuals. By including different geographical regions—four countries from Western Europe and four countries from Central and Eastern Europe—this study focuses on short-term fertility intentions and their realisation over 3 years. Our study, which is mainly informed by the Theory of Planned Behaviour, compares three groups, based on two panel waves from the Generations and Gender Survey (2002–2013 and 2006–2016): Christians who regularly attend church services, nominal Christians, and non-affiliated persons. The results confirm that practising Christians generally intend and have more children than nominal Christians and non-affiliated persons. Effects are much stronger in Western than in Central and Eastern Europe. However, we find only weak significant differences in realising childbearing intentions by religiosity. This is in line with the theoretical assumption that obstacles to childbearing are already considered in the formation of fertility intentions.

KEYWORDS
childbearing, church attendance, Europe, fertility intentions, realisation, religion

1 | INTRODUCTION

In contemporary European low-fertility settings, religious persons are among those groups in society that stand out by their large family sizes. The positive relationship between religion and fertility has been documented almost unanimously for many countries and by various religious measures (Adsera, 2006; Baudin, 2015; Frejka & Westoff, 2008; Guetto et al., 2015; McGregor & McKee, 2016; Peri-Rotem, 2016; Philipov & Berghammer, 2007; Régnier-Loilier & Prioux, 2008). Studies have also shown that childbearing *plans* differ by level of religiosity: Religious persons generally intend to have a

higher number of children than their non-religious peers (Hayford & Morgan, 2008; Philipov & Berghammer, 2007). On a population level, religious fertility differentials matter because a higher fertility among some religious groups can alter their size and ultimately the religious composition of populations. Whereas the role of religious disaffiliation for religious change has been explored in detail, demographic processes—notably, fertility and immigration—have received much less attention (but see Kaufmann et al., 2011; Skirbekk et al., 2010).

There is a lack of research on whether the larger family sizes of religious persons are a mere reflection of their higher fertility

intentions or whether religious persons are also more successful in realising these intentions than their non-religious peers. This study addresses this research gap by analysing women and men separately concerning how religiosity (measured by a combination of religious affiliation and church attendance) affects (a) short-term fertility intentions within 3 years and (b) the chance of realising them within this period. As such an analysis only spans a short time within the whole reproductive period, we embed it in a broader life-course context whereby we also show religious differences in lifetime fertility intentions during young adulthood (20–29 years) and actual numbers of children at advanced reproductive age (35–44 years).

Research on the factors that explain why some couples realise their fertility intentions whereas others do not has grown in recent years, attempting to shed light on the *fertility gap*. This gap between the number of children that couples want and actually have has received ample attention from researchers and policymakers alike (for an overview, see Philipov, 2009). With a few notable exceptions (Bein, 2021; Bein et al., 2017), the literature on the realisation of short-term fertility intentions has not yet focused in detail on religiosity (but some studies have included it among the explanatory variables, e.g., Spéder & Kapitány, 2009; Testa et al., 2014). This may seem surprising given that religiosity is usually of high predictive value across many contexts for both fertility intentions and the number of children. Comparing religious and non-religious persons helps us to understand better why the obstacles for realising fertility intentions potentially affect some groups in society more than others. Our empirical investigation is guided mainly by the Theory of Planned Behaviour (TPB; Ajzen, 1991), which has often been employed for explaining both the formation of fertility intentions (Billari et al., 2009; Dommermuth et al., 2011) and their realisation (e.g., Dommermuth et al., 2015; Mencarini et al., 2015).

This study incorporates different geographical regions with four countries from Western Europe (Austria, France, the Netherlands, and Sweden) and four from Central and Eastern Europe as well as the Caucasus (CEE; Bulgaria, Georgia, Poland, and Russia). Our geographical perspective complements prior research, as few studies on religion and fertility have considered CEE countries (but see Bein et al., 2017; Bein et al., 2020; Philipov & Berghammer, 2007). This east–west differentiation has long been relevant for family and fertility research. Historically, a dividing line (the *Hajnal line*) between Eastern and Western Europe characterised Eastern Europe by early marriage and high fertility and Western Europe by late marriage and low fertility (Hajnal, 1965). More recently, during the 1970/1980s, fertility rates were consistently higher in CEE than in Western Europe, where the latter had already experienced fertility decline (Sobotka & Berghammer, 2021; Figure A1).[1] However, during the 1990s—after the fall of socialism—fertility rates plummeted in CEE countries, often well below the rates observed in Western European countries. Of the countries included in this study, nowadays, the highest total fertility rates are observed in Georgia, France, and Sweden (1.8–2.1), whereas the other countries have rates of around 1.5–1.6 (Campisi et al., 2020; Eurostat, 2021; VID, 2020). These eight countries also represent different religious structures, wherein they are either predominantly Catholic (Austria, France, and Poland), Protestant (Sweden), or Christian Orthodox (Bulgaria, Georgia, and Russia). The Netherlands has a bi-denominational structure—Protestant and Catholic—and stands out with one of the highest shares of non-affiliated (50%) in Europe (Schmeets, 2016). On the other end of the spectrum, Georgia and Poland each report percentages of non-affiliated below 5% (National Statistics Office of Georgia, 2020; Statistics Poland, 2016). Those two countries also have the highest share of churchgoers, whereas church attendance is lowest in France and Sweden (see Table 1).

This study is based on the first and the second wave of the Generations and Gender Survey (GGS), a large-scale representative panel survey. The two waves are spaced (about) 3 years apart. The first wave was conducted between 2002 and 2013, and the second wave between 2006 and 2016, with the dates of the 3-year panels

TABLE 1 Overview of selected religious indicators by country (age group: 18+ years), 2017 (in percent)

	Belief in God ("yes")	Importance of religion in life ("very important")	Religious service attendance ("at least once a month")
Austria	74	14	27
Bulgaria	80	23	18
France	54	14	12
Georgia	99	69	33
The Netherlands	44	14	17
Poland	93	38	66
Russia	78	17	17
Sweden	38	10	10

Source: Own computations based on the European Values Study 2017, weighted numbers.

Question wording: Belief in God: "Which, if any, of the following do you believe in? God?" Yes/no. Importance of religion in life: "Please say, for each of the following, how important it is in your life. Religion" Very important/quite important/not important/not important at all. Religious service attendance: "Apart from weddings, funerals and christenings, about how often do you attend religious services these days?" More than once a week/once a week/once a month/only on specific holy days/once a year/less often/never, practically never.

varying across countries. We examined short-term fertility intentions in the first wave (i.e., the intention to have a child within the next 3 years) and their realisation by the time of the second wave. The two religious measures available in the GGS, that is, religious affiliation and church attendance, were combined into a single index.

The structure of this article is as follows: We first provide a literature review of studies on the relationship between different measures of religiosity, on the one hand, and fertility intentions and number of children, on the other hand (Section 2). This is followed by a brief presentation of the theoretical background (Section 3) and a short overview of the different regional contexts in terms of their religious structures (Section 4). We then describe the data, measures, and methods (Section 5) and, subsequently, our empirical results (Section 6). The concluding section summarises the main findings (Section 7).

2 | PAST RESEARCH ON RELIGION AND FERTILITY

Since the 1960s, when research on the link between religion and fertility became increasingly popular in the United States, studies have focused on the different fertility levels among Protestants and Roman Catholics (e.g., Barnett, 1965; Spaeth, 1968; Westoff & Potvin, 1966) and religious minority groups such as Jews, Mormons, or Anabaptists (e.g., Thornton, 1979). As fertility between different religious groups increasingly converged, research began to concentrate on fertility differences by religiosity (such as self-assessed religiosity or church attendance) in both the United States and Europe (e.g., Adsera, 2006; Sander, 1992). This research, which remains timely today, generally documents a strong and positive relationship between religiosity and the number of children. Church attendance—as a measure of religious practice—is among the strongest religious predictors (Dilmaghani, 2019; Philipov & Berghammer, 2007). Despite the convergence between religious groups, a gap between affiliated and non-affiliated persons continues to persist in many European countries (Goujon et al., 2007; Goujon et al., 2017; Philipov & Berghammer, 2007). Fertility rates are also higher among some religious minority groups, such as Muslims (Westoff & Frejka, 2007), although a significant part of their higher fertility can be explained by their specific socio-economic profile and their immigrant status (Stonawski et al., 2016). Detailed studies have contributed to a more nuanced understanding of the link between religion and fertility. There is evidence that the effect of religion is not equal across parities but particularly pronounced for the transition to the third child (Berghammer, 2009). In some countries, the fertility gap by religiosity is larger among younger cohorts than older ones (Adsera, 2006; Peri-Rotem, 2016), possibly because religiosity has become a more defining marker in a more secularised environment. The link between religiosity and number of children is also stronger in more traditional countries (Guetto et al., 2015).[2]

Research that elaborates on the reasons for the positive relationship between religiosity and fertility argues that the teachings of most religions place a high importance on family and children and support traditional gender roles[3] (McQuillan, 2004). Hence, members tend to hold more conservative values (Hayford & Morgan, 2008). They also estimate the rewards of children as higher but their costs as lower (Bein et al., 2020; Brose, 2006). Religious values are affirmed in church-based social networks, which also provide social support for childbearing (Hackett, 2008, Chapter 4). Although differences in contraceptive behaviour (notably, the Catholic Church's opposition to birth control) played a major role in higher Catholic fertility until the 1960/1970s, those differences have largely disappeared: Unplanned births no longer seem responsible for the higher number of children of religious persons (Hayford & Morgan, 2008).

Studies on the link between religion and fertility intentions, although scarcer, mirror the findings on fertility behaviour: More religious persons generally intend larger families than their non-religious peers (Hayford & Morgan, 2008; Philipov & Berghammer, 2007). Results are more diverse concerning how religiosity affects the realisation of fertility intentions. Religious affiliation and church attendance were found to have a positive impact on the realisation rate in Bulgaria and France but not in Russia, Georgia, and Austria (Bein et al., 2017). A study on Hungary showed that non-affiliated persons are more likely to postpone or abandon their short-term intentions and less likely to realise them compared with the majority Catholic population (Spéder & Kapitány, 2009). Similarly, a study on Germany found that persons who (almost) never attend church or are non-affiliated are less likely to realise their childbearing intentions than those who attend church services more regularly (Kuhnt & Trappe, 2016). On the contrary, church attendance does not seem relevant to the realisation of childbearing intentions for couples in Italy (Testa et al., 2014). In sum, the (few) studies that consider whether religion explains the realisation of fertility intentions have produced a fragmented picture. This is partly because such studies mostly concentrated on single countries and used different religious measures and modelling approaches. Our study expands on previous efforts by applying uniform methods across eight different countries. Those countries represent vastly heterogeneous contexts, which allows us to provide a window into how regional context moderates the relationship between religiosity, fertility intentions, and their realisation.

3 | THEORETICAL FRAMEWORKS

Several theoretical frameworks have been specifically developed to understand the formation and realisation of fertility intentions (Bachrach & Morgan, 2013; Miller, 1994) or established ones have been applied (Ajzen, 1991). These frameworks often complement each other and, when combined, provide more comprehensive insights. We focus on the TPB (Ajzen, 1991), because it sheds light on both the formation *and* realisation of intentions, while we also briefly refer to the cognitive–social model of fertility intentions (Bachrach & Morgan, 2013) and the Traits-Desires-Intentions-Behaviour (T-D-I-B) framework (Miller, 1994; Miller & Pasta, 1995). These frameworks have all been widely used in empirical research on fertility

intentions (e.g., Beaujouan & Berghammer, 2019; Billari et al., 2009; Dommermuth et al., 2011). Although these theories serve as a background for our study, we do not test them empirically, as focusing on the pathways between religiosity, fertility intentions, and their realisation would go beyond the scope of this paper.

According to the cognitive–social model of fertility intentions, *schemes* are developed during childhood in the family of origin (for example, the concept of a family) and are connected with feelings through experiences (Bachrach & Morgan, 2013). Lifetime fertility intentions (which we also cover at ages 20–29) are frequently uncertain and volatile and thus often represent vague schemes rather than *actual* intentions. Most religious adults have grown up with (at least one) religious parent(s) in a surrounding with more traditional family views (e.g., Voas & Crockett, 2005). On average, they also have a higher number of siblings, which has shown to influence the own intended number of children (e.g., Régnier-Loilier, 2006). Hence, we expect religious persons to have developed more "children-friendly" schemes and thus report higher lifetime fertility intentions.

The TPB has focused more on actual short-term fertility intentions. In common definitions, *actual fertility intentions* involve a clear commitment and a readiness to perform a certain behaviour (Philipov, 2011). The TPB proposes three primary antecedents of these intentions: attitudes, social norms, and perceived behavioural control. Hence, forming fertility intentions is more likely if attitudes towards having a child are more positive (e.g., children are believed to bring joy), if persons perceive a social norm towards having children (e.g., siblings or friends have children, parents want to have grandchildren), and if they feel they have control over having a child (e.g., being fertile). Religiosity is among the background factors that influence those antecedents. Empirical evidence from various contexts has indeed shown that religious persons hold more positive attitudes about having children (e.g., they expect increased satisfaction in life and increased closeness between partners) and less negative attitudes towards children (e.g., they are less likely to expect decreased time for personal interests and increased economic difficulties) and that subjective social norms are more important for them (Billari et al., 2009; Mencarini et al., 2015). *Attitudes*, as characterised in the TPB, are the most closely analogous construct to *desires* in the T-D-I-B framework (Miller, 2011a). In the latter framework, desires to have children lead to intentions to have children. Desires are conceptualised as wanting a child based on that person's feelings but not necessarily planning to have one (Miller, 2011b; Mynarska & Raybould, 2020). This framework also speaks to the antecedents of desires: The strength of desires is influenced by non-conscious positive or negative motivational dispositions (traits) to have or not have children. Desires formed in religious versus non-religious families and communities are likely to be different, thus resulting in differences in fertility intentions.

The TPB is also useful for predicting the effect of religiosity on the realisation of fertility intentions (Dommermuth et al., 2011). It proposes that actual control over having a child (e.g., infecundity, having a partner) is a moderator during the process from intending to having a child. Additionally, it assumes that the enhancers for and obstacles

to having a child are already considered in the formation of fertility intentions, meaning that realisation is only through actual control over having a child. This implies that we would not expect a religiosity effect on the realisation of fertility intentions, because this effect is already absorbed in the formation of fertility intentions.

4 | RELIGION IN DIFFERENT REGIONAL CONTEXTS

The eight countries under study differ distinctively with respect to their religious structures (see Table 1). Among the four Western European countries, Austria is the most religious, albeit moderately. Around 60% of the population belongs to the Roman Catholic Church, and close to 20% are non-affiliated (Berghammer et al., 2018). Belief in God (74%) and at least monthly religious service attendance (27%) are somewhat above the level observed in the other Western European countries. Although the process of secularisation has been underway in Austria since the 1960s (Berghammer et al., 2018), its Catholic heritage remains visible; for example, religious education is taught in public schools, and crosses are mandatory in classrooms (in schools with a Christian majority). In France, secularisation has been more rigid. Although nominal belonging is retained more strongly in France than in the Netherlands or Sweden, the level of religiosity (e.g., belief in God at 54%, monthly religious service attendance at 12%) is relatively low. The Netherlands has had similar shares of Catholics and Protestants for many decades (Dekker & Ester, 1996), and nowadays, the share of non-affiliated persons is among the highest in Europe, amounting to 50% (Schmeets, 2016). Protestants are mainly from the (conservative) Calvinist branch, as also indicated in their high share of churchgoers (Knippenberg, 2018). In Sweden, the Lutheran Church of Sweden (i.e., a more liberal branch of Protestantism) was the state church until 2000. Although more than half of the population is Protestant, many of them are nominal, as reflected in Sweden showing the lowest share of all eight countries regarding the belief in God (38%), the importance of religion in life (10%), and the monthly attendance of religious services (10%).

Compared with the Western European countries, the CEE countries have taken a distinctly different historical pathway in terms of religion. During communism, religion was suppressed. However, there is evidence that the share of religious persons (belief in God, being religious) in Bulgaria and Russia increased in the 1990s and 2000s, whereas it has remained stable (at a high level) in Georgia and Poland (Pickel, 2010). Today, Georgia and Poland are the most religious countries of all eight in terms of every measure presented here. After a temporary upswing, Bulgaria and Russia secularised, and their levels of religiosity (importance of religion, church attendance, and affiliation) are similar to those currently seen in Western European countries.

An abundant literature documents that women are generally more religious than men (e.g., Trzebiatowska & Bruce, 2012; Voas et al., 2013). In the eight countries studied here, women consistently practice Christianity more often than men (Table 3). The gender

difference is especially pronounced in Bulgaria, Georgia, and Poland, where the share of regular churchgoers is remarkably higher among women than men. Moreover, in Sweden and Russia, non-affiliation is substantially more frequent among men than among women.

5 | DATA, MEASURES, AND METHODS

5.1 | Data

This study is based on two panel waves from the GGS, a cross-nationally comparative survey that focuses on family formation, fertility, and inter-generational and gender relations. The following eight countries are included in this study: Austria, Bulgaria, France, Georgia, the Netherlands,[4] Poland, Russia, and Sweden.[5] For information on the survey years and sample sizes, see Table 2.

The first wave of the GGS is targeted towards the resident non-institutionalised population aged 18–79, and a probability sampling procedure was applied to all countries.[6] The response rate ranged between 45% in Russia and 75% in Bulgaria (Fokkema et al., 2016). Whereas Wave 1 employed different methods of data collection,[7] personal interviews were carried out during the second wave (except for Sweden, where the second wave was entirely collected from registers). Panel mortality varied substantially between countries, ranging from 0% in Sweden to 48% in Poland among respondents intending a child at Wave 1 (see Table 2).

We restricted our analytical sample to women and men in main reproductive age (20–44 years) and excluded respondents with inconsistent information on fertility intentions and with missing information about the intention to have a child within 3 years. As women expecting a child or men whose partner was pregnant at Wave 1 were not asked whether they intended to have another child during the next 3 years, they were also not included in our sample. The total sample consists of 33,734 individuals. Longitudinal analyses on the realisation of short-term fertility intentions are restricted to respondents who intended a child at Wave 1 and subsequently participated in Wave 2 (8,001 persons). An overview of the respondent characteristics included in the sample is shown in Table A1.

5.2 | Measures

Short-term fertility intentions are based on the question,[8] "Do you intend to have a/another child during the next three years? Definitely not; probably not; probably yes; definitely yes," which we dichotomised into "yes" and no."[9]

Lifetime intentions are measured as follows: "Supposing you do not have a/another child during the next three years, do you intend to have any (more) children at all? Definitely not; probably not; probably yes; definitely yes." Respondents who answered "definitely yes" or "probably yes" were asked, "How many (more) children in total do you intend to have?"

The GGS contains two measures of religion, namely, religious affiliation and religious service attendance. Religious affiliation is presumed to reflect a mixture of formal criteria, subjective feelings, and degree of commitment (Billiet, 2007). Whether or not respondents state being affiliated with a religion also depends on country characteristics such as the existence of a church tax or an association with national belonging (Storm, 2011; Voas & Bruce, 2004). Attending religious services is a measure of public religious practice (Stark & Glock, 1968). Attendants are regularly exposed to religious teaching, perform rituals, and are integrated into church-based networks. The low share of regular attendees in many countries suggests that they have oftentimes become a convinced group, which is selected along demographic criteria. Religious service attendance is a measure most suitable for Catholics (of whom Sunday service attendance is expected) and less so for Orthodox Christians and especially Protestants for whom other kinds of religious practice (e.g., Bible reading) may be more central (Cohen et al., 2005).

The GGS question on religious affiliation was formulated as "Which religious denomination do you adhere to, if any?" This question was followed by a country-specific list of religious denominations,

TABLE 2 Overview of the sample, by country

Country	Wave 1	Wave 2	Respondents in Wave 1	Respondents intending a child at Wave 1	Panel respondents intending a child at Wave 1	Panel mortality
Austria	2008/2009	2012/2013	3,928	1,324	1,024	23%
Bulgaria	2004	2007	6,406	2,252	1,529	32%
France	2005	2008	3,639	1,242	809	35%
Georgia	2006	2009	3,957	1,857	1,490	20%
The Netherlands	2002/2004	2006/2007	3,104	718	534	26%
Poland	2010/2011	2014/2015	6,982	2,164	1,115	48%
Russia	2004	2007	3,811	1,356	828	39%
Sweden	2012/2013	2016	1,907	672	672	0%
Total			33,734	11,585	8,001	31%

Note: Panel mortality refers to respondents intending a child at Wave 1.

Source: GGS, respondents aged 20–44 years with valid information on the intention to have a child within the next 3 years, unweighted numbers.

TABLE 3 Religiosity by country and sex, in %

	Main religion	Main religion, practising	Main religion, nominal	Without affiliation	Other religion(s)	Missing	Total
All							
Austria	Catholics	18	51	16	15	0	100
France	Catholics	4	64	15	10	7	100
The Netherlands	Catholics and Protestants	10	26	45	6	13	100
Sweden	Protestants	4	54	30	9	3	100
Bulgaria	Orthodox	15	59	9	14	2	100
Georgia	Orthodox	41	42	1	16	0	100
Poland	Catholics	65	26	3	2	4	100
Russia	Orthodox	7	63	22	8	0	100
Total (average)		21	48	18	10	4	100
Women							
Austria	Catholics	20	51	14	14	0	100
France	Catholics	5	65	14	10	6	100
The Netherlands	Catholics and Protestants	11	29	43	6	11	100
Sweden	Protestants	4	58	26	9	3	100
Bulgaria	Orthodox	22	56	7	13	2	100
Georgia	Orthodox	48	36	1	15	0	100
Poland	Catholics	70	23	2	2	3	100
Russia	Orthodox	9	67	17	7	0	100
Total (average)		24	48	15	10	3	100
Men							
Austria	Catholics	17	51	17	15	0	100
France	Catholics	4	63	16	11	7	100
The Netherlands	Catholics and Protestants	9	23	48	6	15	100
Sweden	Protestants	3	49	36	9	3	100
Bulgaria	Orthodox	9	63	12	15	2	100
Georgia	Orthodox	35	48	1	16	0	100
Poland	Catholics	60	30	3	2	5	100
Russia	Orthodox	5	58	28	9	0	100
Total (average)		18	48	20	10	4	100

Source: GGS Wave 1, men and women aged 20–44 years, *n* = 33,734, weighted numbers.

which we grouped into (1) Roman Catholic, (2) Protestant, (3) Orthodox, (4) other affiliation, (5) no affiliation, and (6) missing information.

Religious service attendance was measured with the following question: "How often, if at all, do you attend religious services (apart from weddings, funerals, baptisms, and the like)?" Respondents could give the number on a weekly, monthly, or yearly basis.[10] Answers were recoded into attending religious services (1) monthly or more often or (2) less often than monthly.

In line with previous research (Adsera, 2006; Peri-Rotem, 2016; Régnier-Loilier & Prioux, 2008), we combined both religious measures into a single index: (1) Main religion, practising (i.e., attending religious services monthly or more often); (2) main religion, nominal (i.e., attending religious services less than monthly); (3) without affiliation. Respondents with minority religions or missing information about religious affiliation and/or church attendance were retained in the data set, but results are not shown. The main religion in Austria, France, and Poland is Roman Catholicism, whereas it is Protestantism in Sweden, and the Orthodox Church in Bulgaria, Georgia, and Russia. In the Netherlands, the "main religion" group comprises both Roman Catholics and Protestants (Table A2). Hence, our study focuses on Christian and non-affiliated respondents and the frequency of their church attendance. The distribution across countries is shown in Table 3.

5.3 | Methods

The study's focus is an analysis of short-term fertility intentions and their realisation by level of religiosity. However, we embedded this

analysis in a broader life-course context. All analyses were conducted separately for women and men. In the descriptive analyses, we applied weights that adjust for age and sex at the country level and provided averages across countries for totals (i.e., the pooled sample). We first show descriptive results for the ultimately intended number of children (more specifically, the number of [additional] intended children and the actual number of children) for individuals aged 20–29 years. This is followed by the descriptive results for the mean actual number of children for individuals aged 35–44 years. Therein, we are able to discuss the results on short-term fertility intentions and their realisation from a more comprehensive perspective.

Short-term fertility intentions were analysed both descriptively and with multivariate methods. We modelled the intention to have a child within 3 years (yes/no) using probit regression, where the main explanatory variable was the religious index. We controlled for age, partner status (co-resident; non-resident; no partner),[11] sex, parity (childless; one child; two or more children), and country.[12] In addition, country-specific probit regressions are provided in Tables A11–A14. For the analysis about the realisation of short-term fertility intentions by Wave 2 (among those who intended a child at Wave 1), the dependent variable was "child born between Wave 1 and Wave 2 or expecting a child[13] at Wave 2" versus "no child (or pregnancy) between the two waves." We used the same control variables as in the first set of regression models.

Results are displayed as average marginal effects (AMEs), which represent a variable's average effect on the probability to intend a child or to realise one's short-term intention, and are comparable across different models (Best & Wolf, 2012). Positive coefficients

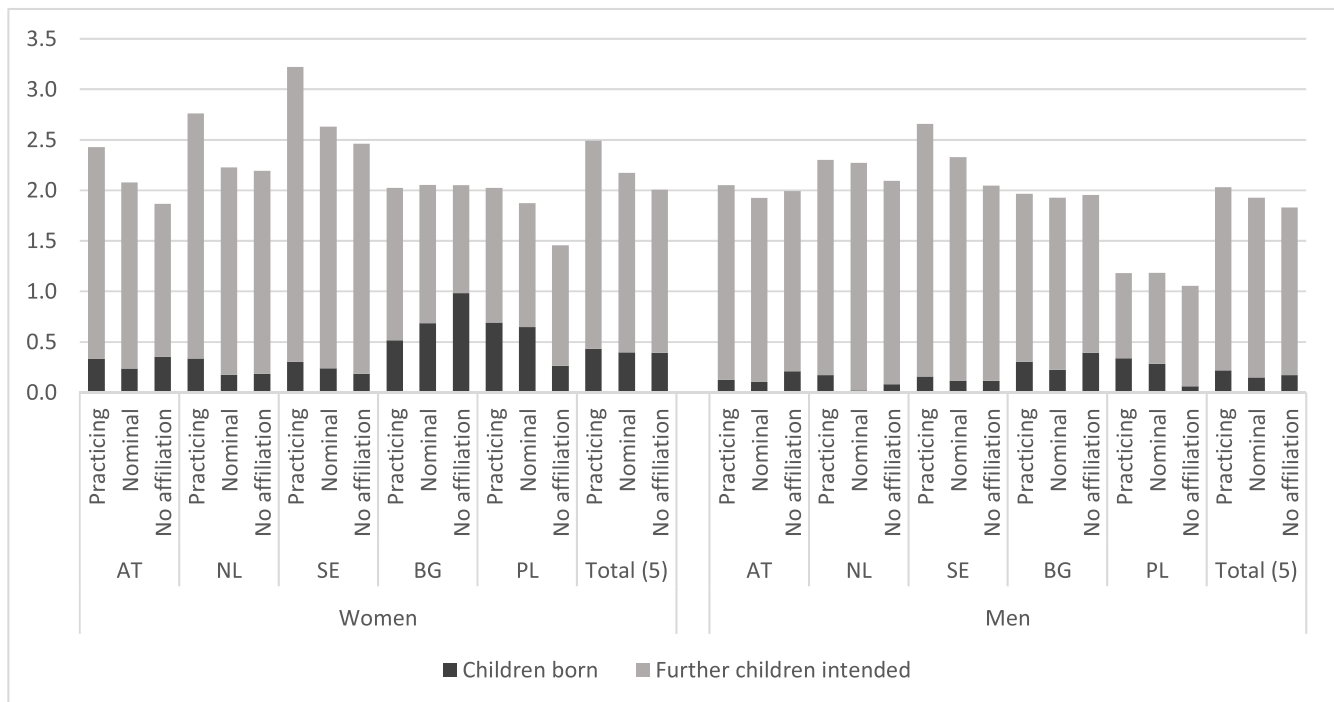**FIGURE 1** Mean ultimately intended number of children by country, religiosity, and sex, age 20–29 years
Note: Practicing and nominal religiosity refers to the main religion in the respective country. Case numbers are below 20 for female practicing Christians in SE and male practicing Christians in NL and SE.
Source: GGS Wave 1, *n* = 7,602 persons (4,360 women and 3,242 men), weighted numbers

indicate that the corresponding group intended a child or realised short-term fertility intentions more often, respectively, whereas negative coefficients indicate that a/another child was less often intended or realised.

6 | EMPIRICAL RESULTS

6.1 | Lifetime fertility intentions and actual number of children

Figure 1 shows the ultimately intended number of children for women and men aged 20–29 in Austria, the Netherlands, Sweden, Bulgaria, and Poland (France, Georgia, and Russia were excluded due to high shares of missing information on the number of [further] intended children—namely, 34%, 43%, and 29%, respectively). The ultimately intended number of children combined children born and further children intended. Numbers were generally higher among practising Christians than among nominal Christians; non-affiliated men and women ultimately intended the lowest number of children. These results hold for all countries (except for Bulgaria[14]) and both sexes, although the effect was stronger for women than for men. For women, the range was between 2.5 children (practising Christians) and 2.0 children (non-affiliated), whereas it was between 2.0 and 1.8 children for men, respectively.

Figure 2 shows that the actual average number of children at later reproductive ages (35–44 years) was overall higher among practising

Christians compared with nominal Christians, whereas non-affiliated persons had the lowest number of children.[15] Although the numbers varied across geographic contexts, this holds for women in the four Western European countries included in this study (case numbers are low in Sweden) as well as for Poland. The differences between practising Christians and their non-affiliated peers were large in these countries. Conversely, the association was inverse among women in the three Orthodox Eastern European countries, where practising Christians had a lower number of children than nominal Christians. In Bulgaria and Georgia, the average number of children was higher among non-affiliated women than among practising Christians (case numbers are low in Georgia). Among men, the picture was similar, with a clear expected positive fertility gradient by religion in the Western European countries and in Poland, but also in Russia. As with women, men's patterns were different in Georgia and Bulgaria. Overall, differences were more pronounced among women than among men: The range for women was between 2.0 children (practising Christians) and 1.5 children (non-affiliated) and between 1.7 children and 1.4 children for men, respectively.

6.2 | Short-term fertility intentions and their realisation

The descriptive results about women in Figure 3 indicate that, across all countries, practising Christians were more likely to intend to have a child within 3 years (36%) than nominal Christians and the non-
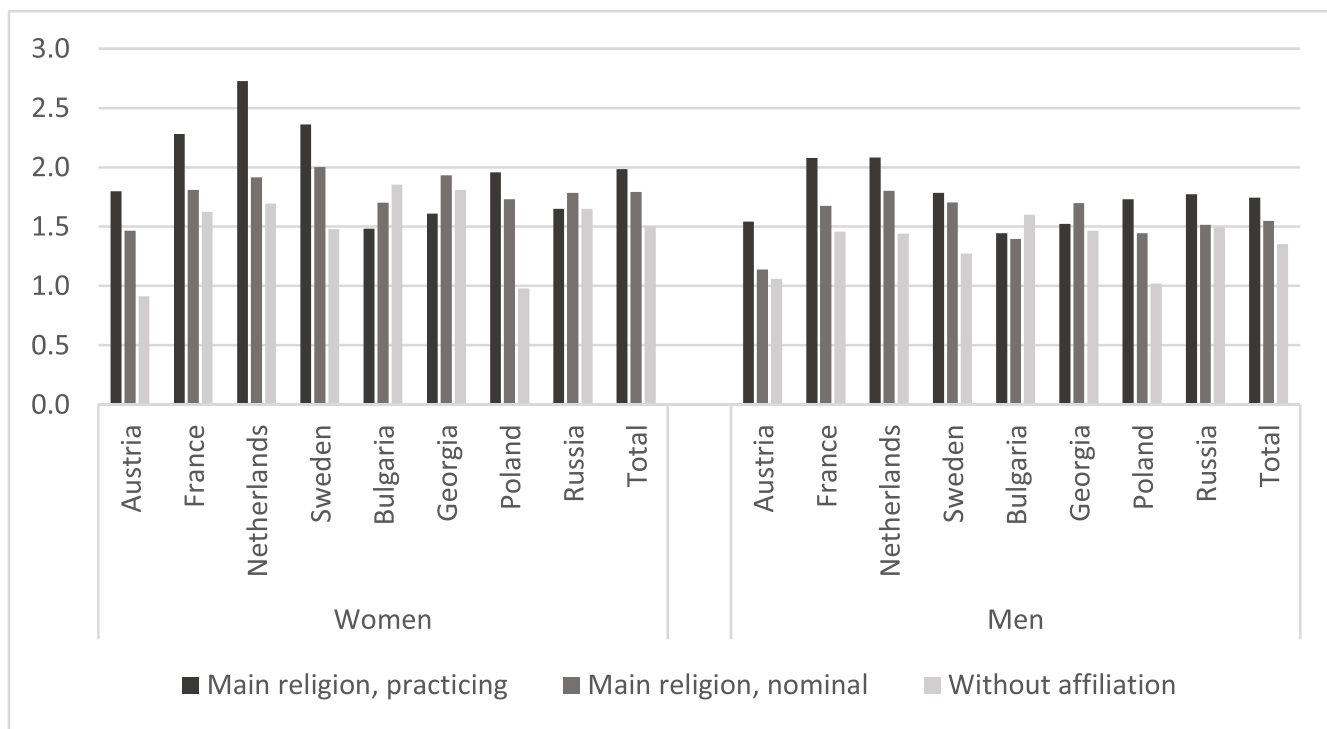
FIGURE 2 Mean actual number of children by country, religiosity, and sex, age 35–44 years
Note: Case numbers are below 20 for practising Christian women and men in Sweden and for women and men without affiliation in Georgia.
Source: GGS Wave 1, *n* = 14,187 persons (8,076 women and 6,111 men), weighted numbers
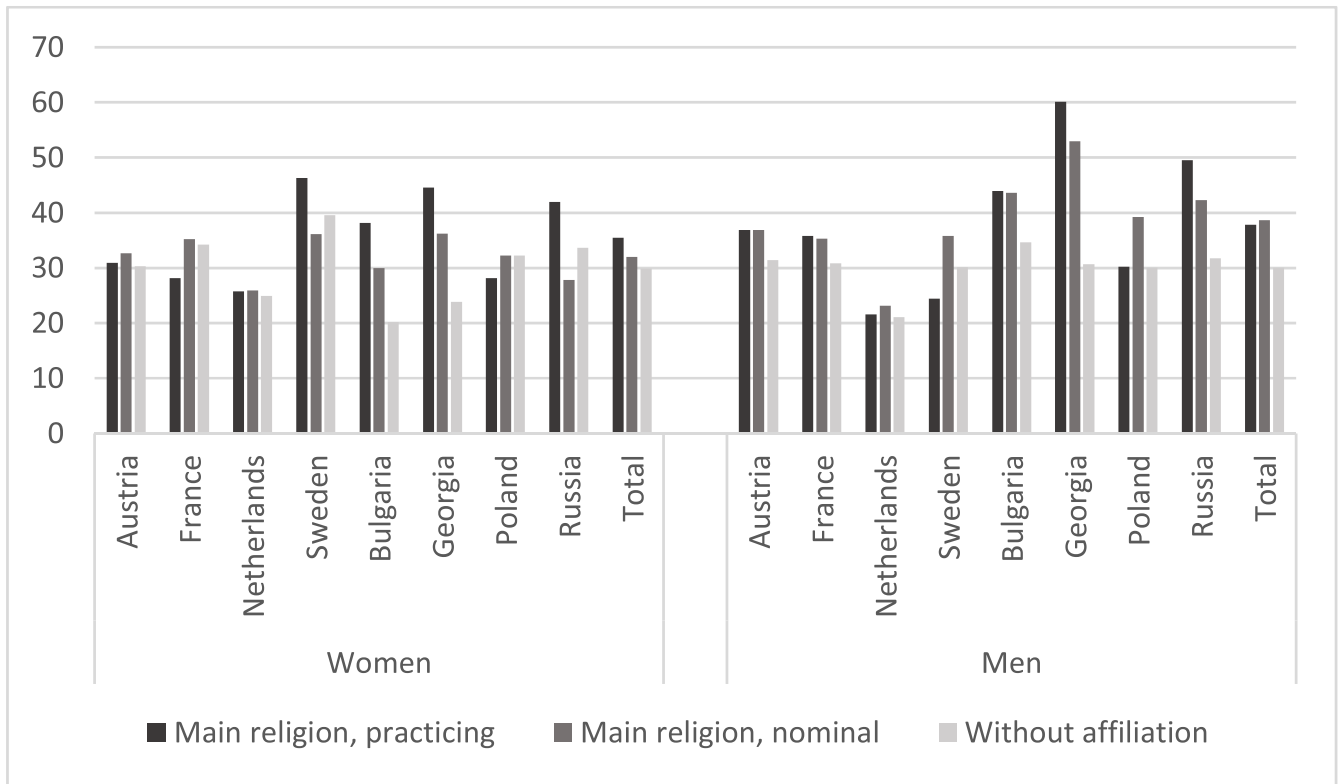
FIGURE 3 Intention to have a child within 3 years, by country, religiosity, and sex (in %)
Source: GGS Wave 1, *n* = 33,734 persons aged 20–44 years, weighted numbers
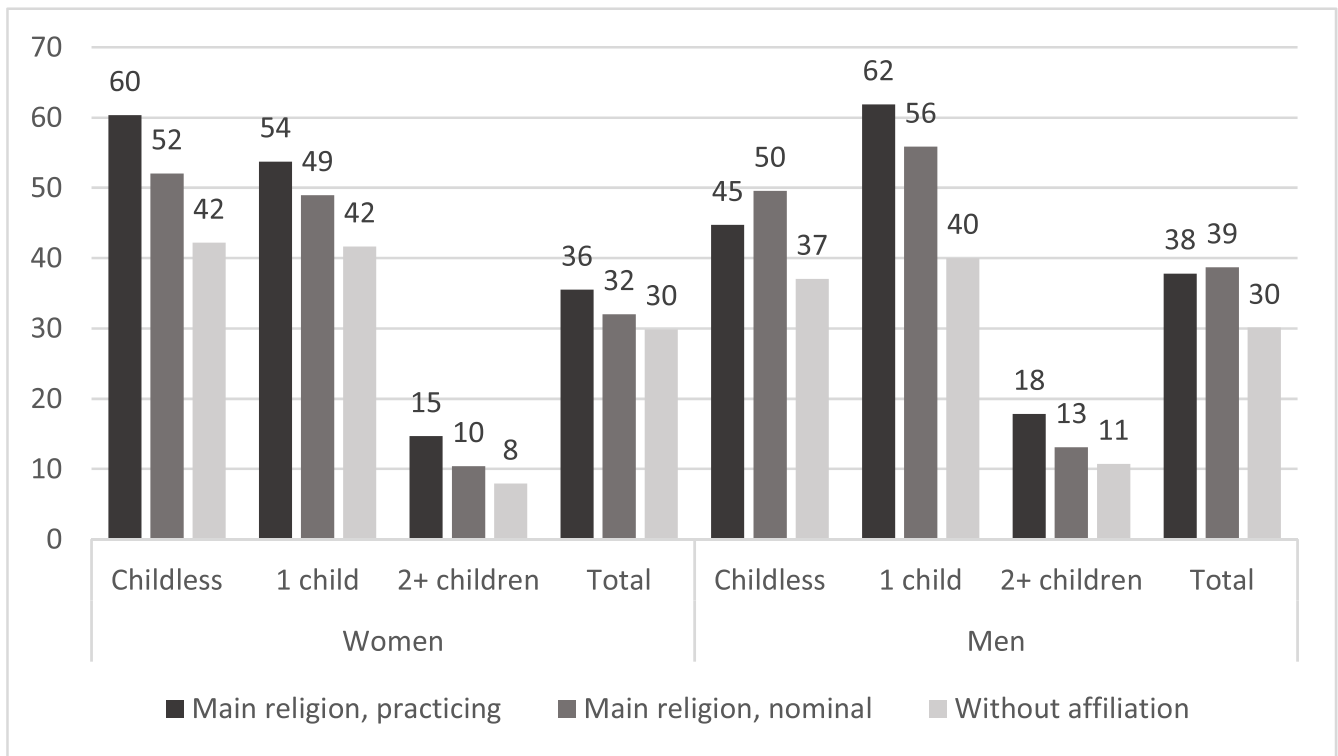
FIGURE 4 Intention to have a child within 3 years, by sex, religiosity, and parity (in %)
Source: GGS Wave 1; n = 33,734 persons aged 20–44 years, weighted numbers

affiliated who show rather similar values (32% and 30%, respectively). However, besides Bulgaria and Georgia—who showed distinct religious gradients—the patterns were very diverse. Practising Christian men and nominal Christians intended a child more often (38% and 39%, respectively) than non-affiliated men (30%). The regional pattern was clearer than for women. Generally, the effect of religiosity on short-term fertility intentions was much less distinctive across countries compared with lifetime intentions (Figure 1) and the mean number of children (Figure 2).

A key explanation for the ambiguous results is the different parity distribution of (non-)religious persons: At a given time during the life course, religious persons will, on average, already have more children than their less-religious peers, resulting in an unclear pattern of short-term intentions. Taking this into account, we distinguished between short-term intentions by parity (Figure 4). Due to sample size restrictions, we pooled all countries (but see Tables A3–A10 for country-specific results). These results clearly indicate that for all parities and both sexes (except for childless men), practising Christians intended a/another child within 3 years more often than nominal Christians and that short-term fertility intentions were even lower among non-affiliated persons. The religious gradient was especially pronounced among childless women (60% vs. 52% and 42%, respectively) and among men with one child (62% vs. 56% and 40%, respectively).

The multivariate analyses based on the pooled sample for all countries and both sexes visibly showed that—controlling for parity and other factors—regular churchgoers intended to have a child within 3 years significantly more often than nominal Christians and that non-affiliated persons were the least likely to intend to have a child in the near future (Table 4, first column). These results were significant both for women and men (Table 4, second and third columns). According to the size and the level of statistical significance for the estimated coefficients, the difference between practising and nominal Christians was larger for women, whereas the difference between nominal Christians and the non-affiliated was larger for men. Thus, church attendance was the more defining factor among women, compared with religious affiliation among men. Regarding geographic variation among women, country-specific models revealed that—with the exception of Georgia—practising Christians in all countries intended a child more often than their nominal peers. Additionally, aside from Russia, non-affiliated women intended a child less often than nominal Christians (Table A11). In most of the analysed countries, practising male Christians intended a child within 3 years more often than nominal Christians, whereas non-affiliation was negatively associated with men's fertility plans in all eight countries (Table A12).

Regarding control variables, our results show that parity was most important for short-term fertility intentions. In fact, stepwise models revealed that the difference between practising and nominal Christians became statistically significant when including parity (results available on request). Partner status further influenced short-term fertility plans: Individuals without a partner intended a child in the near future significantly less often than persons cohabiting (either married or non-married) with a partner. In addition, persons in living-

TABLE 4 Probit regression models on the intention to have a child within 3 years (average marginal effects)

	All	Women	Men
Religiosity			
Main religion, practising	0.04***	0.06***	0.02*
Main religion, nominal (ref.)	0	0	0
Without affiliation	−0.06***	−0.04***	−0.08***
Age			
Age in years	0.13***	0.13***	0.14***
(Age in years)^2	−0.00***	−0.00***	−0.00***
Partner status			
Co-resident partner (ref.)	0	0	0
Non-resident partner	−0.08***	−0.05***	−0.12***
No partner	−0.20***	−0.18***	−0.22***
Sex			
Male (ref.)	0		
Female	−0.03***		
Parity			
Childless (ref.)	0	0	0
1 child	−0.11***	−0.10***	−0.14***
2+ children	−0.46***	−0.42***	−0.50***
Country			
Austria (ref.)	0	0	0
France	0.05***	0.07***	0.03*
The Netherlands	−0.07***	−0.04**	−0.12***
Sweden	0.04***	0.07***	−0.00
Bulgaria	0.04***	0.01	0.08***
Georgia	0.17***	0.12***	0.22***
Poland	−0.03**	−0.03**	−0.03*
Russia	0.05***	0.03**	0.07***
R^2	0.2187	0.2454	0.1980
n	33,734	18,927	14,806

Note: Further controlled for "other than main religion," for missing information on religiosity, and for missing information on partner status. Significance levels: +p < .10; *p < .05; **p < .01; ***p < .001.
Source: GGS Wave 1, n = 33,734 persons aged 20–44 years.

apart-together partnerships (partner not sharing a household) intended a child in less often than those living together with their partner. Further, respondents' age and country of residence also mattered for (further) family plans.

Finally, we turn to the realisation of short-term fertility intentions. Descriptive results indicated that the realisation rate in the pooled sample was similar among practising Christians, nominal Christians, and non-affiliated persons, ranging between 36% and 39% for women and 37% and 44% for men (Figure 5). Non-affiliated women tended to realise their fertility intentions slightly more often than practising or nominal Christian women. This suggests a type of "inverse" religious gradient among women, albeit of low strength. Conversely, men's probabilities of realising their short-term fertility intentions were
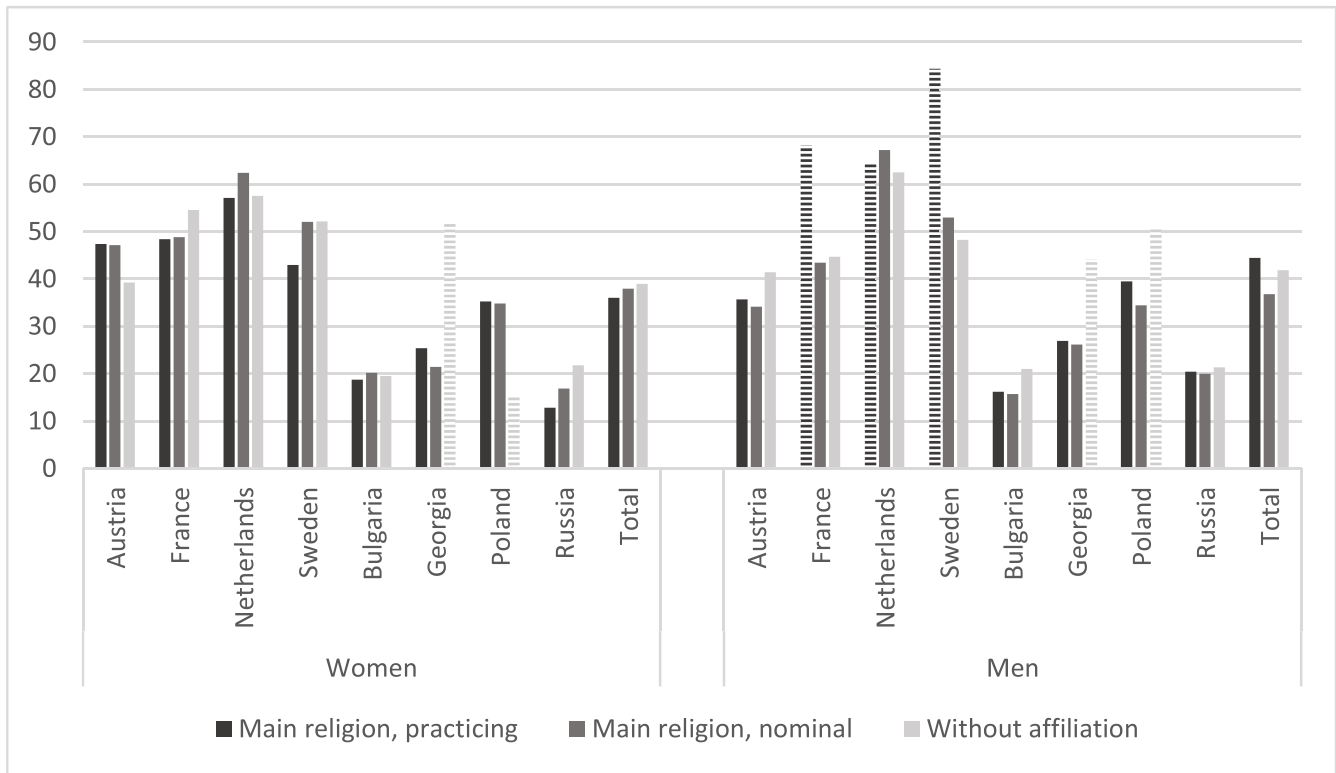
FIGURE 5   Realisation of intention to have a child within 3 years, by country, religiosity, and sex (in %)

Note: Dashed bars indicate low number of cases (i.e. below 20).

Source: GGS Waves 1 and 2; n = 8,001 panel persons aged 20–44 years at Wave 1 and intending a child within 3 years at Wave 1, weighted numbers
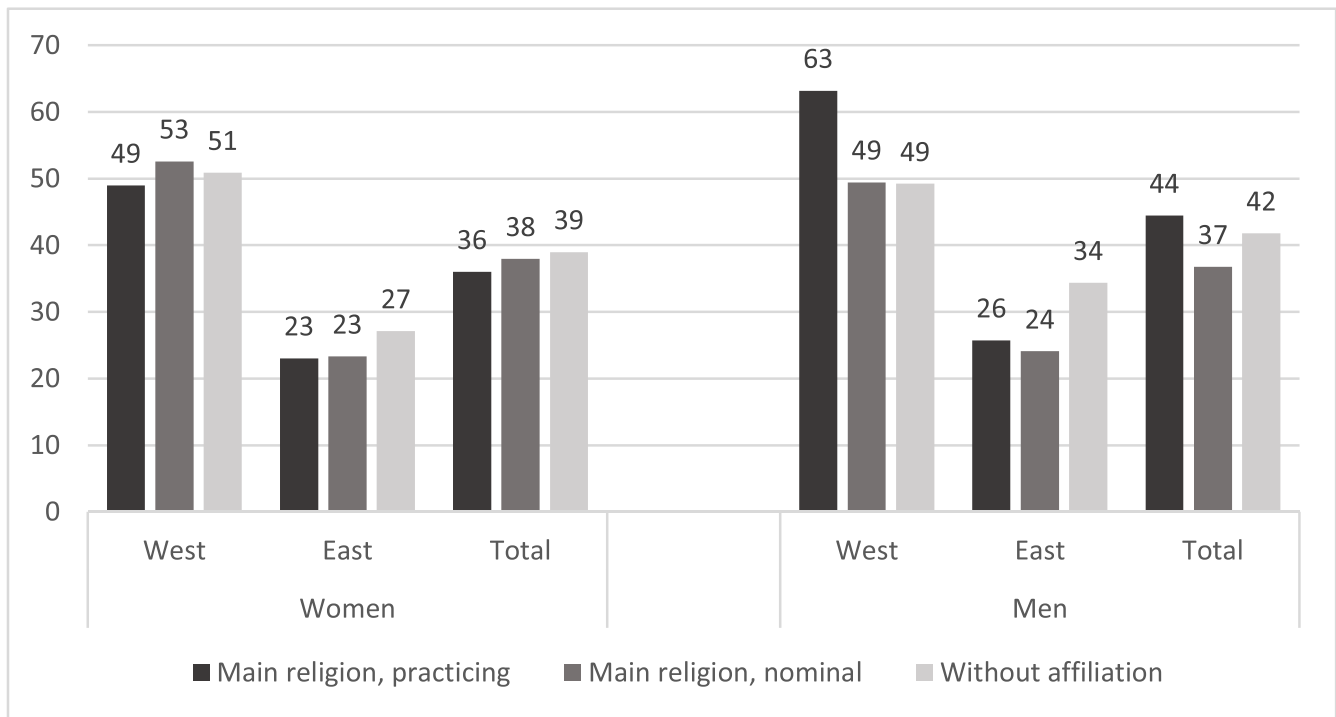

FIGURE 6   Realisation of intention to have a child within 3 years, by region, religiosity, and sex (in %)

Source: GGS Waves 1 and 2; *n* = 8,001 panel respondents aged 20–44 years at Wave 1 and intending a child within 3 years at Wave 1, weighted numbers

highest among practising Christians, followed by non-affiliated men. For both sexes, the patterns were generally quite diverse across countries (Figure 5).

As realisation was substantially higher in Western than in CEE countries, we additionally differentiated the results by region (see Figure 6). Due to low case numbers (because the sample was restricted to those who intend a child within 3 years in Wave 1), we pooled all countries in a given region. Realisation rates for women varied between 49% and 51% in Western European countries and between 23% and 27% in CEE countries. For men, realisation ranged between 49% and 63% in the West and between 24% and 34% in the East. In both regions, realisation rates were similar between the three

TABLE 5 Probit regression models on the realisation of the intention to have a child within 3 years (average marginal effects)

	All	Women	Men
Religiosity			
Main religion, practising	0.03*	0.02	0.04+
Main religion, nominal (ref.)	0	0	0
Without affiliation	0.02	0.01	0.03
Age			
Age in years	0.06***	0.11***	0.04**
(Age in years)²	−0.00***	−0.00***	−0.00***
Partner status			
Co-resident partner (ref.)	0	0	0
Non-resident partner	−0.15***	−0.12***	−0.18***
No partner	−0.29***	−0.26***	−0.30***
Sex			
Male (ref.)	0		
Female	−0.03**		
Parity			
Childless (ref.)	0	0	0
1 child	−0.01	−0.00	−0.03
2+ children	−0.13***	−0.12***	−0.14***
Country			
Austria (ref.)	0	0	0
France	0.01	−0.01	0.03
The Netherlands	0.07**	0.04	0.11**
Sweden	0.04+	−0.00	0.09**
Bulgaria	−0.23***	−0.27***	−0.18***
Georgia	−0.10***	−0.16***	−0.04
Poland	−0.09***	−0.14***	−0.03
Russia	−0.27***	−0.33***	−0.21***
R²	0.1406	0.1523	0.1370
n	8,001	4,173	3,827

Note: Further controlled for "other than main religion," for missing information on religiosity, and for missing information on partner status. Significance levels: +$p < .10$; *$p < .05$; **$p < .01$; ***$p < .001$.
Source: GGS Waves 1 and 2; n = 8,001 panel persons aged 20–44 years at Wave 1 and intending a child within three years at Wave 1.

religious groups. Conversely, practising Christian men in Western European countries had higher realisation rates, whereas it was non-affiliated men who realised their fertility intentions most often in CEE countries. The total, thus, has a bimodal shape (Figure 6).

In the regression analyses that were based on the pooled sample for both sexes, practising Christians were significantly more likely to realise their short-term fertility intentions than nominal Christians (Table 5). However, non-affiliated persons did not significantly differ from the reference group. The sex-specific regression models revealed that men were responsible for this significant effect: There was some indication (but only at the 10% significance level) that practising Christian men realised their fertility intentions slightly more often. However, compared with the other variables, the effect size was weak. Descriptive results (above) and country-specific analyses (Table A14) suggested that this may be due to a higher realisation rate among practising Christian men in some Western European countries. Conversely, women's religiosity results were not significant. In line with these findings, country-specific models barely showed any significant religiosity effects (Tables A13 and A14).

Age, partner status, parity, and country determine the realisation of short-term fertility intentions. Parents with two or more children realised their short-term plans less often than childless persons, whereas parents of one child did not differ significantly from childless individuals. Persons in living-apart-together relationships realised their plans less often than those cohabiting with a partner. Moreover, partnerless women and men who intended a child within 3 years at Wave 1 rarely realised their plans. Finally, realisation varied significantly among countries. In agreement with previous research, women and men in CEE countries realised their plans substantially less often than their counterparts in Western European countries.

7 | CONCLUSION

Previous studies have consistently shown that religiosity is an important factor for predicting fertility intentions and behaviour, with religious persons intending and having more children than their non-religious peers across many regions (Adsera, 2006; Baudin, 2015; Frejka & Westoff, 2008; Guetto et al., 2015; McGregor & McKee, 2016; Peri-Rotem, 2016; Philipov & Berghammer, 2007; Régnier-Loilier & Prioux, 2008). We have reaffirmed these results for a contemporary period, showing that religious and non-religious persons differ in their family life plans—even at a young age (20–29)—and that the religious effect is stronger for women than for men. Based on the cognitive–social model of fertility intentions (Bachrach & Morgan, 2013), these results may be interpreted to mean that people who grew up in religious versus non-religious surroundings form different *schemes* about family and children during childhood and adolescence. Religious persons (especially women) will eventually have more children (at age 35–44), which reflects their higher intentions; this effect is strongest in Western European countries.

Our analysis focused on investigating whether the higher number of children of religious persons solely reflects their higher

intentions or whether they also realise these intentions more often than their non-religious peers. Although our results clearly show that practising Christian women and men intend more children in the short-term than nominal Christians and non-affiliated persons, we find that practising Christians are *not* generally more likely to realise their short-term fertility intentions than their less-religious peers. However, there is some weak indication that practising Christian men in several Western European countries realise their fertility intentions more often than their less religious peers (see also Bein et al., 2017; Kuhnt & Trappe, 2016; Spéder & Kapitány, 2009). According to the TPB, the higher short-term fertility intentions among religious persons arise (partly) from their more positive and less negative attitudes towards children (Billari et al., 2009; Mencarini et al., 2015). Furthermore, there is evidence that subjective social norms may be more relevant for religious persons and that religious networks play a pivotal role for providing social support and affirming religious values (Billari et al., 2009; Hackett, 2008). Although the TPB predicts that religion has an effect on fertility intentions, it does not assume an additional effect on their realisation (at least in the very short term), because obstacles and enablers are already considered when forming intentions. This might explain why we do not observe any differences (or very weak differences for men) in the realisation rate by level of religiosity.

Our cross-national approach allows us to illuminate how country context might affect the relationship between religiosity and fertility intentions and their realisation. The results depict a stronger, clearly positive effect of religiosity on lifetime fertility intentions and number of children for all Western European countries and Poland (as well as for the actual number of children for Russian men) but not for (the other) CEE countries. The patterns of short-term fertility intentions, on the other hand, do not differ systematically between Western and CEE countries. We note a distinctive regional pattern regarding the realisation of fertility intentions: Realisation rates are much higher in Western Europe (around 40–50%) than in CEE countries (around 20–30%). However, religiosity effects are generally weak and inconsistent. Ultimately, these results suggest that the link between religiosity and fertility is not a universal one and that the meaning of religiosity and its relationship with fertility warrants further exploration in countries such as Bulgaria, Georgia, or Russia. Further research could, for instance, detail the specificities of Christian Orthodox teachings on family-related issues, the pathways of communicating these issues, and their influence on church members (McQuillan, 2004). Moreover, the role that economic resources play in the formation and the realisation of fertility intentions has been well established (Beaujouan & Berghammer, 2019). Because the CEE countries are economically weaker than the Western European countries, the association between economic situation and religiosity would be worth investigating.

Besides an in-depth study of the CEE countries, we propose two additional avenues for future research. First, the antecedents of intentions (as mapped out theoretically) could be explored with a stronger focus on religion. This would help better comprehend the higher fertility of religious persons or the contradictory results observed in some CEE countries. Second, our study has not considered the certainty of intentions, partly due to data constraints (we could only include a subset of countries from the GGS). However, the strength of fertility desires and the certainty of intentions vary between individuals, with associated differences in realisation (e.g., Schoen et al., 1999). Therefore, it seems plausible that religious and non-religious persons could differ in this regard.

DATA AVAILABILITY STATEMENT

ACKNOWLEDGEMENTS

CONFLICT OF INTEREST

The authors have no conflict of interest to declare.

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ENDNOTES

[1] In Bulgaria, Georgia, Poland, and Russia, the total fertility rate was between approximately 2.0 and 2.5 during the 1970/1980s, whereas it was between approximately 1.5 and 2.0 in Austria, France, the Netherlands, and Sweden (see Figure A1).

[2] This study includes 17 countries, but only two of them are in Central and Eastern Europe (i.e., Poland and Slovakia).

[3] However, a study of five countries casts doubt on the assumption that the effect of religion works through different gender roles and rather reports independent effects of gender roles and religion (Bein et al., 2017).

[4] In the Netherlands, the Netherlands Kinship Panel Study (NKPS) was used. It is close enough to the GGS to have been "adopted" by it.

[5] Among the 14 countries conducting (at least) two waves of the GGS, we excluded Australia and Italy due to missing information about religious affiliation, Hungary due to missing information on church attendance, and the Czech Republic, Germany, and Lithuania because of high attrition at Wave 2.

[6] Sampling frames were population registers (Austria and Sweden), areas with dwellings as sampling elements (Russia), or (a combination of area and) census information with either names or dwellings as sampling elements (Bulgaria, France, Georgia, and Poland). A one-stage procedure

was used in Austria and Sweden, whereas a two-stage sampling strategy was used in the other countries included in this study.

[7] Data collection was via Computer-Assisted Personal Interviewing (CAPI) in Austria and France, via Paper-and-Pencil Personal Interviewing (PAPI) in the CEE countries of Bulgaria, Georgia, Poland, and Russia, whereas information was collected in Sweden through a combination of Computer-Assisted Telephone Interviewing (CATI), Self-Administered Paper Questionnaire (SAPQ), and registers.

[8] In the Netherlands, the NKPS worded questions somewhat differently: "How many (more) children do you think you'll have?" and "Within how many years' time would you like to have your (first / next) child?"

[9] The three-year time frame for short-term fertility intentions was selected because the second wave was supposed to take place 3 years after the first one (Vikat et al., 2007). In Austria, the time interval between the two waves was 4 years. Results (available on request) remained stable when restricting realisation in Austria to births occurring up to three and a half years after Wave 1.

[10] In the Netherlands, the question on religious affiliation was as follows: "Do you consider yourself to belong to a particular faith, religious denomination or church?" Answers: "No religion" and a country-specific list of religious denominations. Religious service attendance was measured with "About how often do you currently attend services of a church or community of faith? (Hardly) ever; once or a few times a year; once or a few times a month; once or a few times a week."

[11] Further, we did not control for changes in partner status between the two waves. Separation as well as the formation of a new union and repartnering is associated with (short-term) fertility intentions and their realisation (Beaujouan & Solaz, 2008; Qu et al., 2000).

[12] We kept the multivariate models rather parsimonious because of the low case numbers for certain categories of religiosity. Other relevant aspects like ethnicity, economic situation, housing, education, or partnership quality—or changes therein—were hence not included (Berninger et al., 2011; Vignoli et al., 2013).

[13] Either a female respondent is pregnant, or the partner of a male respondent is pregnant.

[14] Philipov and Berghammer (2007) previously documented a different pattern for Bulgaria.

[15] One limitation of this study is that information about changes in affiliation or church attendance is not available in our data set (Need & Graaf, 1996; Pickel, 2010). This limitation mainly affects our results on the number of children at age 35–44, because we measure religiosity at the time of the survey, that is, after childbearing has taken place (Berghammer, 2012). Because religiosity tends to decline over the life course, some respondents showed a lower level of religiosity at the time of the survey than earlier in their lives, which might lead to an underestimation of religious differences in fertility.

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APPENDIX A.
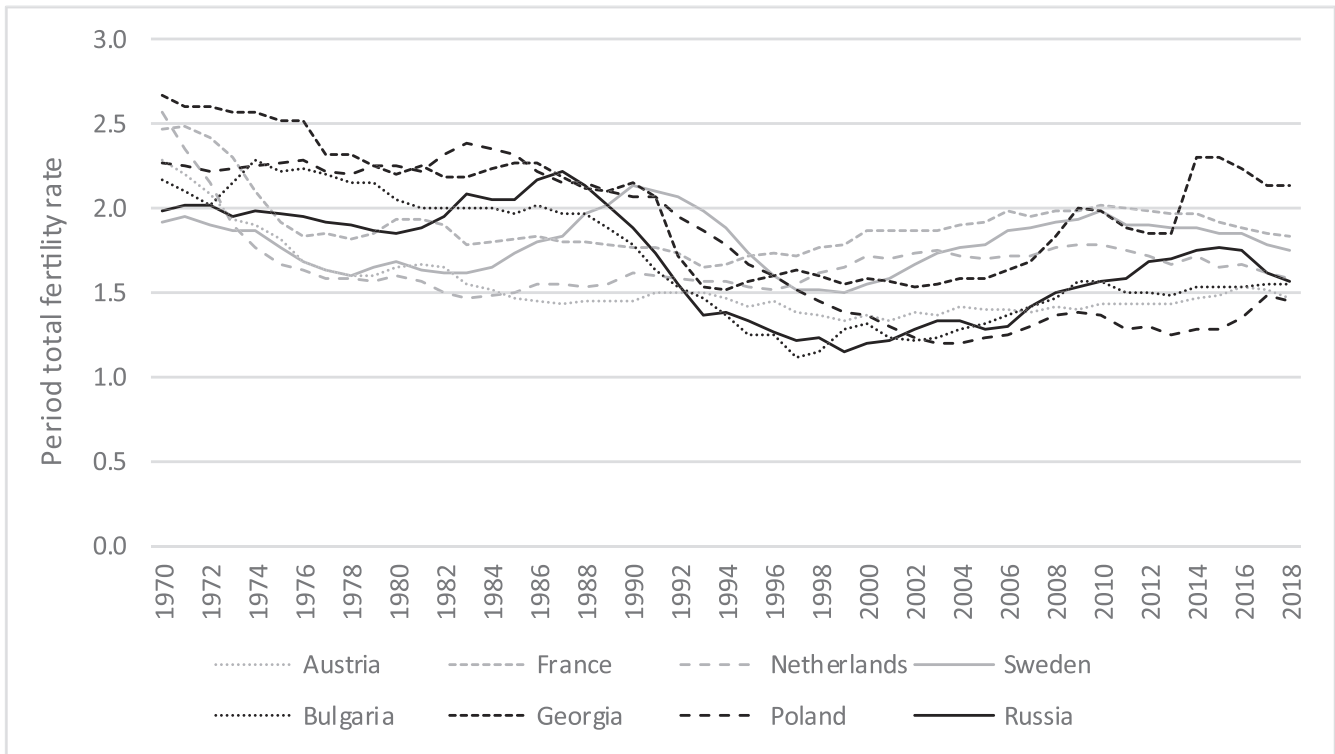
FIGURE A1 Period total fertility rate, 1970-2018

Sources: Human Fertility Database (2021); Council of Europe (2006) for Georgia 1970–1994 and Poland 1970; Eurostat (2021) for Austria 2018, Bulgaria 2010–2018 and Poland 2017–2018; National Statistics Office of Georgia (2020) for Georgia 1995–2018

TABLE A1 Sample characteristics

	Respondents in Wave 1			Panel respondents intending a child at Wave 1		
	All	Women	Men	All	Women	Men
Religiosity						
Main religion, practising	8,852	5,543	3,309	2,068	1,250	818
Main religion, nominal	16,048	8,826	7,222	4,031	1,988	2,043
Without affiliation	4,724	2,344	2,380	988	504	484
Other than main religion	3,061	1,656	1,405	774	355	419
Missing	1,049	559	490	140	77	63
Age						
Age in years (mean age)	32.4	32.5	32.2	30.1	29.5	30.7
Partner status						
Co-resident partner	21,218	12,601	8,617	4,901	2,731	2,170
Non-resident partner	3,142	1,725	1,417	876	478	398
No partner	9,367	4,601	4,766	2,220	964	1,256
Missing information	7	1	6	4	1	3
Sex						
Male	14,806			3,827		
Female	18,928			4,174		
Parity						
Childless	12,783	5,839	6,944	4,242	1,978	2,264
1 child	8,004	4,864	3,140	2,609	1,534	1,075
2+ children	12,947	8,225	4,722	1,150	662	488
Country						
Austria	3,928	2,327	1,601	1,024	552	472
France	3,639	2,064	1,575	809	468	341
The Netherlands	3,104	1,902	1,202	534	356	178
Sweden	1,907	1,105	802	672	411	261
Bulgaria	6,406	3,627	2,779	1,529	717	812
Georgia	3,957	2,038	1,919	1,490	667	823
Poland	6,982	3,856	3,126	1,115	615	500
Russia	3,811	2,009	1,802	828	388	440
Total	**33,734**	**18,928**	**14,806**	**8,001**	**4,174**	**3,827**

Note: Characteristics refer to Wave 1. Unweighted numbers.
Source: GGS Wave 1; persons aged 20–44 years.

TABLE A2 Religious affiliation, by country, in %

	Roman Catholic	Protestant	Orthodox	Other	No affiliation	Missing affiliation	Total
Austria	**70**	4	3	8	16	0	100
France	**69**	2	1	8	15	7	100
The Netherlands	**21**	**15**	0	6	45	13	100
Sweden	2	**58**	1	5	30	3	100
Bulgaria	1	1	**76**	13	9	0	100
Georgia	3	0	**83**	13	1	0	100
Poland	**95**	0	1	1	3	0	100
Russia	0	0	**70**	7	22	0	100

Source: GGS Wave 1; men and women aged 20–44 years; *n* = 33,734; weighted numbers.

TABLE A3 Intention to have a child within 3 years among childless women, by religiosity and country

	Main religion, practising	Main religion, nominal	Without affiliation	Other than main religion	Missing	Total
Austria	48	41	34	47	39	42
France	62	49	44	67	47	50
The Netherlands	46	37	29	37	34	34
Sweden	63	52	41	71	37	50
Bulgaria	73	66	48	59	78	66
Georgia	62	55	41	51	0	58
Poland	50	52	36	52	23	49
Russia	80	64	65	45	0	64
Total	60	52	42	54	43	51

Source: GGS Wave 1; childless women aged 20–44 years; n = 5,839; weighted numbers.

TABLE A4 Intention to have a child within 3 years among women with one child, by religiosity and country

	Main religion, practising	Main religion, nominal	Without affiliation	Other than main religion	Missing	Total
Austria	46	40	34	56	0	42
France	61	53	48	70	53	54
The Netherlands	73	56	53	52	47	54
Sweden	53	67	67	78	35	67
Bulgaria	41	34	19	44	38	36
Georgia	61	63	25	68	0	62
Poland	45	38	39	63	32	43
Russia	49	40	48	42	0	42
Total	54	49	42	59	34	50

Source: GGS Wave 1; women aged 20–44 years with one child; n = 4,864; weighted numbers.

TABLE A5 Intention to have a child within 3 years among women with two or more children, by religiosity and country

	Main religion, practising	Main religion, nominal	Without affiliation	Other than main religion	Missing	Total
Austria	12	10	12	18	0	12
France	15	14	8	18	8	14
The Netherlands	5	6	8	8	2	6
Sweden	27	14	15	30	21	17
Bulgaria	8	5	4	3	3	5
Georgia	20	18	12	15	0	18
Poland	8	7	0	10	3	8
Russia	22	9	5	16	0	10
Total	15	10	8	15	6	11

Source: GGS Wave 1; women aged 20–44 years with two or more children; n = 8,225; weighted numbers.

TABLE A6 Intention to have a child within 3 years among women (of all parities), by religiosity and country

	Main religion, practising	Main religion, nominal	Without affiliation	Other than main religion	Missing	Total
Austria	31	33	30	37	25	33
France	28	35	34	46	34	36
The Netherlands	26	26	25	27	22	25
Sweden	46	36	40	53	31	39
Bulgaria	38	30	20	20	34	30
Georgia	45	36	24	30	0	39
Poland	28	32	32	39	23	29
Russia	42	28	34	28	0	30
Total	35	32	31	34	27	33

Source: GGS Wave 1; women aged 20–44 years; *n* = 18,928; weighted numbers.

TABLE A7 Intention to have a child within 3 years among childless men, by religiosity and country

	Main religion, practising	Main religion, nominal	Without affiliation	Other than main religion	Missing	Total
Austria	47	42	39	46	0	43
France	41	44	36	55	32	43
The Netherlands	17	34	23	22	17	24
Sweden	27	46	31	46	33	38
Bulgaria	65	63	54	64	66	62
Georgia	68	68	36	68	0	67
Poland	39	45	35	16	33	40
Russia	54	55	43	68	0	53
Total	45	50	37	48	36	46

Source: GGS Wave 1; childless men aged 20–44 years; *n* = 6,944; weighted numbers.

TABLE A8 Intention to have a child within 3 years among men with one child, by religiosity and country

	Main religion, practising	Main religion, nominal	Without affiliation	Other than main religion	Missing	Total
Austria	49	46	26	60	0	43
France	82	58	41	72	28	56
The Netherlands	84	52	53	36	43	52
Sweden	44	66	65	65	0	64
Bulgaria	47	46	37	50	38	46
Georgia	81	81	36	92	0	82
Poland	51	52	26	29	48	50
Russia	56	47	35	74	0	45
Total	62	56	40	60	31	55

Source: GGS Wave 1; men aged 20–44 years with one child; *n* = 3,140; weighted numbers.

TABLE A9 Intention to have a child within 3 years among men with two or more children, by religiosity and country

	Main religion, practising	Main religion, nominal	Without affiliation	Other than main religion	Missing	Total
Austria	20	11	15	23	0	16
France	13	13	13	27	20	15
The Netherlands	14	5	5	7	11	7
Sweden	10	14	9	40	0	15
Bulgaria	11	8	3	7	0	7
Georgia	32	26	18	30	0	28
Poland	8	11	13	7	6	9
Russia	34	18	11	34	0	19
Total	18	13	11	22	6	14

Source: GGS Wave 1, men aged 20–44 years with two or more children, *n* = 4,722, weighted numbers.

TABLE A10 Intention to have a child within 3 years among men (of all parities), by religiosity and country

	Main religion, practising	Main religion, nominal	Without affiliation	Other than main religion	Missing	Total
Austria	37	37	31	40	0	36
France	36	35	31	50	27	36
The Netherlands	22	23	21	20	19	21
Sweden	24	36	30	47	24	34
Bulgaria	44	44	35	35	44	41
Georgia	60	53	31	52	0	55
Poland	30	39	30	18	33	33
Russia	50	42	32	56	0	41
Total	38	39	30	40	24	37

Source: GGS Wave 1; men aged 20–44 years; *n* = 14,806, weighted numbers.

TABLE A11 Probit regression models on the intention to have a child within 3 years (average marginal effects), women

	AT	FR	NL	SE	BG	GE	PL	RU	All women
Religiosity									
Main religion, practising	0.06**	0.06	0.05+	0.06	0.05***	0.01	0.04**	0.12***	0.06***
Main religion, nominal (ref.)	0	0	0	0	0	0	0	0	0
Without affiliation	−0.05*	−0.04+	−0.03	−0.04	−0.10***	−0.11	−0.06	0.04	−0.04***
Age									
Age in years	0.17***	0.21***	0.20***	0.19***	0.07***	0.10***	0.13***	0.09***	0.13***
(Age in years)^2	−0.00***	−0.00***	−0.00***	−0.00***	−0.00***	−0.00***	−0.00***	−0.00***	−0.00***
Partner status									
Co-resident partner (ref.)	0	0	0	0	0	0	0	0	0
Non-resident partner	−0.04	−0.06*	−0.08***	−0.11**	−0.02	−0.23***	−0.07**	0.02	−0.05***
No partner	−0.19***	−0.17***	−0.14***	−0.23***	−0.21***	−0.41***	−0.22***	−0.11***	−0.18***
Parity									
Childless (ref.)	0	0	0	0	0	0	0	0	0
1 child	−0.02	−0.06*	0.06**	0.07+	−0.26***	−0.27***	−0.12***	−0.17***	−0.10***
2+ children	−0.34***	−0.38***	−0.24***	−0.31***	−0.55***	−0.68***	−0.45***	−0.44***	−0.42***
Country									
Austria (ref.)									0
France									0.07***
The Netherlands									−0.04**
Sweden									0.07***
Bulgaria									0.01
Georgia									0.12***
Poland									−0.03**
Russia									0.03**
R^2	0.2010	0.2542	0.3468	0.2769	0.3415	0.2326	0.2826	0.2211	0.2454
n	2,327	2,064	1,902	1,105	3,626	2,038	3,856	2,009	18,927

Note: Further controlled for "other than main religion," for missing information on religiosity, and for missing information on partner status. Significance levels: +p < .10; *p < .05; **p < .01; ***p < .001.
Source: GGS Wave 1; n = 18,927 women aged 20–44 years.

TABLE A12 Probit regression models on the intention to have a child within 3 years (average marginal effects), men

	AT	FR	NL	SE	BG	GE	PL	RU	All women
Religiosity									
Main religion, practising	0.08**	0.09	0.01	−0.10	0.02	0.03	−0.00	0.09+	0.02*
Main religion, nominal (ref.)	0	0	0	0	0	0	0	0	0
Without affiliation	−0.08**	−0.04	−0.02	−0.09**	−0.07**	−0.29***	−0.10**	−0.10***	−0.08***
Age									
Age in years	0.14***	0.18***	0.17***	0.17***	0.11***	0.15***	0.15***	0.12***	0.14***
(Age in years)^2	−0.00***	−0.00***	−0.00***	−0.00***	−0.00***	−0.00***	−0.00***	−0.00***	−0.00***
Partner status									
Co-resident partner (ref.)	0	0	0	0	0	0	0	0	0
Non-resident partner	−0.15***	−0.11***	−0.16***	−0.15**	−0.08+	−0.21***	−0.15***	−0.06+	−0.12***
No partner	−0.25***	−0.13***	−0.16***	−0.21***	−0.23***	−0.33***	−0.31***	−0.22***	−0.22***
Parity									
Childless (ref.)	0	0	0	0	0	0	0	0	0
1 child	−0.15***	−0.08*	0.08**	0.07	−0.28***	−0.20***	−0.14***	−0.19***	−0.14***
2+ children	−0.46***	−0.41***	−0.26***	−0.36***	−0.69***	−0.69***	−0.50***	−0.46***	−0.50***
Country									
Austria (ref.)									0
France									0.03*
The Netherlands									−0.12***
Sweden									−0.00
Bulgaria									0.08***
Georgia									0.22***
Poland									−0.03*
Russia									0.07***
R^2	0.1465	0.1913	0.2329	0.2316	0.2481	0.2055	0.2370	0.1401	0.1980
n	1,600	1,575	1,202	802	2,779	1,919	3,126	1,801	14,806

Note: Further controlled for "other than main religion," for missing information on religiosity, and for missing information on partner status. Significance levels: +p < .10; *p < .05; **p < .01; ***p < .001.
Source: GGS Wave 1; n = 14,806 men aged 20–44 years.

TABLE A13 Probit regression models on the realisation of the intention to have a child within 3 years (average marginal effects), women

	AT	FR	NL	SE	BG	GE	PL	RU	All women
Religiosity									
Main religion, practising	0.04	0.12	−0.02	−0.02	0.02	0.02	0.01	0.03	0.02
Main religion, nominal (ref.)	0	0	0	0	0	0	0	0	0
Without affiliation	−0.01	0.05	−0.09	0.00	−0.01	(0.21)	(−0.26)	0.02	0.01
Age									
Age in years	0.18***	0.20***	0.15*	0.18***	0.10**	−0.00	0.14***	0.08+	0.11***
(Age in years)^2	−0.00***	−0.00***	−0.00*	−0.00***	−0.00**	−0.00	−0.00***	−0.00+	−0.00***
Partner status									
Co-resident partner (ref.)	0	0	0	0	0	0	0	0	0
Non-resident partner	−0.14**	−0.10+	−0.03	−0.18*	−0.17***	−0.32+	−0.08	−0.06	−0.12***
No partner	−0.29***	−0.40***	−0.45***	−0.38***	−0.30***	−0.26***	−0.25***	−0.14*	−0.26***
Parity									
Childless (ref.)	0	0	0	0	0	0	0	0	0
1 child	0.06	0.14**	−0.05	0.21***	−0.14***	−0.11+	−0.05	−0.00	−0.00
2+ children	−0.06	0.03	−0.12	−0.09	−0.16***	−0.23***	−0.24***	−0.18+	−0.12***
Country									
Austria (ref.)									0
France									−0.01
The Netherlands									0.04
Sweden									−0.00
Bulgaria									−0.27***
Georgia									−0.16***
Poland									−0.14***
Russia									−0.33***
R^2	0.1378	0.2229	0.0917	0.1956	0.0964	0.1299	0.0777	0.0709	0.1523
n	551	468	356	411	716	667	615	388	4,173

Note: Further controlled for "other than main religion," for missing information on religiosity, and for missing information on partner status. Coefficients in parentheses indicate numbers below 20. Significance levels: +p < .10; *p < .05; **p < .01; ***p < .001.

Source: GGS Waves 1 and 2; n = 4,173 female panel respondents aged 20–44 years at Wave 1 and intending a child within 3 years at Wave 1.

TABLE A14 Probit regression models on the realisation of the intention to have a child within 3 years (average marginal effects), men

	AT	FR	NL	SE	BG	GE	PL	RU	All men
Religiosity									
Main religion, practising	0.05	(0.40**)	(−0.12)	(0.37)	−0.02	0.01	0.07	(0.02)	0.04+
Main religion, nominal (ref.)	0	0	0	0	0	0	0	0	0
Without affiliation	0.07	0.06	−0.01	−0.05	0.04	(0.10)	(0.18)	0.03	0.03
Age									
Age in years	0.11**	0.13**	0.22**	0.15**	0.06*	−0.03	0.11*	−0.00	0.04**
(Age in years)^2	−0.00***	−0.00**	−0.00**	−0.00**	−0.00**	0.00	−0.00**	0.00	−0.00***
Partner status									
Co-resident partner (ref.)	0	0	0	0	0	0	0	0	0
Non-resident partner	−0.26***	−0.25***	−0.26*	−0.17+	−0.09*	−0.19*	−0.13+	−0.10+	−0.18***
No partner	−0.37***	−0.55***	−0.53***	−0.54***	−0.20***	−0.32***	−0.32***	−0.15**	−0.30***
Parity									
Childless (ref.)	0	0	0	0	0	0	0	0	0
1 child	0.03	−0.15*	−0.04	0.18**	−0.02	−0.11+	0.02	−0.11*	−0.03
2+ children	0.03	−0.16*	−0.01	−0.10	−0.08	−0.32***	−0.15+	−0.16*	−0.14***
Country									
Austria (ref.)									0
France									0.03
The Netherlands									0.11**
Sweden									0.09**
Bulgaria									−0.18***
Georgia									−0.04
Poland									−0.03
Russia									−0.21***
R^2	0.1363	0.1850	0.2200	0.2278	0.0825	0.1011	0.0940	0.0419	0.1370
n	472	341	178	261	812	823	500	440	3,827

Note: Further controlled for "other than main religion," for missing information on religiosity, and for missing information on partner status. Coefficients in parentheses indicate numbers below 20. Significance levels: +p < .10; *p < .05; **p < .01; ***p < .001.
Source: GGS Waves 1 and 2; n = 3,827 male panel respondents aged 20–44 years at Wave 1 and intending a child within 3 years at Wave 1.