

Disaffiliation from the Evangelical Lutheran Churches in the Nordic Countries: Mistrust in the Churches, Changing Worldviews, or Something else?



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ABSTRACT

In this article, I used data from the 2018 Religion survey of the International Social Survey Programme to compare Protestants affiliated with the Evangelical Lutheran Churches and the religiously unaffiliated in the five Nordic countries. I was primarily interested in significant predictors of disaffiliation. I found that the differences between Protestants and the religiously unaffiliated within countries are far more pronounced than the differences between these two groups across the countries, and that the lack of confidence in churches is a very strong predictor of disaffiliation. The religious or nonreligious socialization during the formative period (described by the parents' affiliation and the frequency of churchgoing during the formative period) is also an important predictor of disaffiliation. Ceasing to believe in God and having negative perceptions about the relevance and timeliness of religion are also significant predictors of disaffiliation, albeit weaker than mistrust in the Churches and religious or nonreligious upbringing. In addition, there are important differences between the countries: the odds of disaffiliating in Norway, Sweden, and (especially) Finland are significantly higher than in Denmark. These differences are due to path-dependent and country-specific factors unaccounted-for by the other predictors. Moreover, disaffiliation occurs across a wide range of ages, and only the elderly (75 years or more) seem to be an exception.

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INTRODUCTION

The Nordic countries – Denmark, Finland, Iceland, Norway, and Sweden – are notable in the scope of secularization studies. Most of their populations are affiliated with the national Evangelical Lutheran Churches (from hereon called ‘National Churches’ for simplicity), but their average levels of religious beliefs, participation, and involvement are low. Although these countries are highly secular, religion remains important in the public sphere (Furseth 2018a). This peculiar condition of religion in the Nordic countries results from two opposing forces. One is the centuries-old Protestant tradition that created strong ties between the States and the National Churches, which persist to this day despite being weaker than in the past (Dobbelaere 2006; Furseth 2018b; Nielsen and Kühle 2011). The other is the advance of secularization in many Western countries (Cheyne 2010; Lugo 2012; Norris and Inglehart 2011; Stolz 2020), of which the Nordic countries are no exception (Davie 2015).

The balance between these forces is tipping toward secularization: the trends toward disaffiliation from the National Churches unmistakably tell that religion is losing ground. However, individuals’ religiosity is a multidimensional characteristic. So, its decay is not just a matter of disaffiliation.

The increasing proportion of the religiously unaffiliated is a central topic in studies on religion in the Scandinavian and Nordic countries (the Scandinavian countries are Denmark, Norway, and Sweden). Why do the Nordics disaffiliate from the National Churches? Is disaffiliation mainly associated with loss of faith or mistrust in the Churches? Or do the high living standards, the strong welfare systems, and the educational levels in these countries all lead to the perception that religion becomes irrelevant to one’s life? Is disaffiliation associated with an overall detachment from religion, or do the unaffiliated keep some ‘private’ form of religion?

Secularization, or the waning influence of religion in the public and private life, is a general trend in the Western countries. The Nordic countries are no exception, even though (with the possible exception of Sweden) the majority of their populations is still affiliated with the National Churches. Thus, several authors focused on the Scandinavian and Nordic countries to understand the differences between the Protestants and the non-religious and why people disaffiliate from the National Churches. Following the arguments of Rodney Stark, Laurence Iannaccone, and Roger Finke (Finke and Stark 2003; Iannaccone 1992; Stark and Iannaccone 1994), Zuckerman proposed that the monopoly held by the National Churches due to the privileged position granted to them by the States may have led to their becoming inefficient in fulfilling the people’s needs (Zuckerman 2009). Lüchau and Andersen (2012) and Keysar (2014) stressed the relationship between disaffiliation and

disappointment with religious institutions. More recently, Urstad studied the differences between religious and non-religious people in Norway (Urstad 2017). He found that in Norway, being younger and more educated, not holding belief in God or a higher power, and having friends with different religions all increase the odds of being religiously unaffiliated. Lemos and Puga-Gonzalez analyzed the trends toward disaffiliation and decreasing belief in God in the three Scandinavian countries from 1998 to 2018 (Lemos and Puga-Gonzalez 2021). They found a strong association between confidence in churches and belief in God, and that the trends towards disaffiliation and disbelief in God in Scandinavia accelerated in the period 2008–2018 relative to 1998–2008. However, these empirical works have limitations and left some important questions unanswered. For example, none considered the five Nordic countries from a comparative perspective. Moreover, to the best of my knowledge, most statistical models of disaffiliation so far proposed do not include important variables suggested by the theories, like confidence in churches and items describing the conditions of religious or nonreligious socialization during the formative period.

In this work, I present a study on disaffiliation from the National Churches in the Nordic countries using the 2018 round of the International Social Survey Programme (ISSP) Religion questionnaire. This round is unique because it includes the five Nordic countries, making it possible to compare them all (the previous ISSP Religion surveys only covered the three Scandinavian countries). The research questions for the present work are the following: based on the 2018 ISSP Religion questionnaire,

1. What are the differences between the religiously unaffiliated and Protestants affiliated with the National Churches in: belief in God, confidence in churches and religious organizations, and perceived relevance of religion in the Nordic countries? and
2. What are the strongest predictors of disaffiliation: is it mistrust in the National Churches, loss of faith, unfavorable religious socialization during the formative period, or some other socio-demographic factors?

Following Lemos and Puga-Gonzalez (2021), I restricted the present study to the two main religious groups in the Nordic countries, the religiously unaffiliated and Protestants affiliated with the National Churches, for two reasons. First, minority Protestant churches lack historical ties with the Nordic states comparable to the National Churches. Second, their members have higher levels of belief and involvement than the affiliated with the National Churches, which is typical of minority religious groups (Stark 1996). Consequently, the dynamics of affiliation and disaffiliation with these minority churches

are almost certainly very different from those of the two main groups. In addition, the percentages of these minority groups in the ISSP 2018 Religion sample are very small, which would severely limit the possibility of drawing statistical inferences about them.

To answer the first research question, I used Chernoff faces plots to compare the two groups across the five countries, based on 15 religiosity indicators. Then, I followed this qualitative analysis with multiple comparisons tests with Holm p-value adjustment, which yields quantitative information on the similarities and differences between the two groups, and across the countries.

To answer the second research question, I used the results from the multiple comparisons and previous works by Urstad (2017) and Lemos and Puga-Gonzalez (2021) to select a set of covariates and build logistic regression models of disaffiliation. In these models, I restricted the sample to the respondents that were raised as Protestant affiliated with one of the National Churches, and the binary response variable had a value of one if they declared 'No religion' as their current religious group and zero otherwise. I built two logistic regression models, one without and another with the variable 'COUNTRY' as a control.

Given the strong historical ties between the National Churches and the Nordic States, it is important to compare the levels of trust in the Churches with those of trust in other secular state institutions. In this study, I used the variables from the 2018 ISSP Religion Survey regarding trust in Parliament and the Courts and the legal system to compare them with trust in the Churches, considering both groups (Protestants and non-affiliated) in the five Nordic countries.

The present work brings two main innovations to the study of religion in the Nordic countries in recent years. One is the use of faces plots and multiple comparisons to show the sharp differences in religiosity between the two main groups (Protestants affiliated with the National Churches and the religiously unaffiliated). The second is the response variable used in the logistic regression models of disaffiliation, which is based on the religious group of the formative period rather than the current religious group. This choice of the response variable effectively discriminates the respondents that did disaffiliate from those that were never affiliated.

The remainder of the present work is structured as follows. In the next section, I present a summary of previous studies on secularization and disaffiliation from the National Churches in the Nordic countries that are more directly related to the present study. Then, in the Data and Methods section, I describe the data set, the variables' selection and transformation, and the statistical methods used in the work. The next three sections contain the results, discussion, and conclusion, respectively.

RELIGIOUS TRADITION AND SECULARIZATION IN THE NORDIC COUNTRIES

Religion in the Nordic countries is highly cultural and institutional due to the centuries-old ties between the National Churches and the states. Following the Protestant Reformation in the sixteenth century, the Evangelical Lutheran Churches (National Churches) became state churches in all the Nordic countries (Dobbelaere 2006; Furseth et al. 2018; Nielsen and Kühle 2011). The National Churches held a monopoly of religion but were controlled by the states. Every citizen had to be a member, and these historical roots explain why, despite the high level of secularization of the Nordic countries, the majority of their populations is still affiliated with the National Churches (with the possible exception of Sweden).

In the twentieth century, the church-state relations began to change, with the progressive separation of the National Churches from the States (Furseth 2018b). This separation occurred at different paces and at different stages. Today, the Church of Denmark (*Folkekirken*) is the only remaining traditional state church (Furseth et al. 2018). In addition, minority churches (Protestant and other) became accepted, although the National Churches still dominate the religious landscape of the Nordic countries. The persistence of the link between religion and the society, based on cultural traditions rather than on high levels of religious beliefs and participation, led to the concept of "Cultural religion" (Demerath 2000; Kasselstrand and Eltanani 2013). However, this cultural religion amounts to a form of 'belonging without believing' in Grace Davie's (1990) believing-belonging paradigm (which is well-known and often cited in secularization studies). As such, it lacks essential emotional ingredients like religious beliefs and involvement. Thus, this form of cultural religion is vulnerable to breaches in the individuals' trust in their National Churches, either due to conflicts between the Churches' public positions and the societies' values, or to the societal impact of the clerics' wrongdoings.

In fact, membership in the National Churches has declined in the last three decades in the Nordic countries and the shares of the religiously unaffiliated, often designated as the 'Nones' (Baker and Smith 2009; Cheyne 2010; Davie 2015; Merino 2012), grew consistently (Furseth et al. 2018; Lemos and Puga-Gonzalez 2021). The shrinking proportion of individuals affiliated with the National Churches was accompanied by a corresponding decline of religious rituals such as baptisms, confirmations, and church weddings, although the number of church funerals remained relatively stable (Furseth et al. 2018).

Secularization is the force opposite to traditional and cultural religion. Scholars in the scientific study of religion proposed several definitions of 'secularization.' For example, Karel Dobbelaere (1999) considered the macro-

meso-, and micro-levels of analysis and emphasized the functional differentiation between church and state on the macro level. Other theorists, like Casanova (2001), Steve Bruce (2002; 2011) and Bryan Wilson (2016), elaborated on the concept of secularization. Tschannen (1991) presented a systematic and thorough review of secularization considering its core elements (differentiation, rationalization, and worldliness) and processes (autonomization, privatization, generalization, pluralization, and collapse of the world view). Casanova (2001) viewed secularization in terms of three sub-theses: differentiation of social institutions and norms from religious to secular; decline of religious beliefs and practices; and marginalization of religion to the private sphere. He also expressed the idea that the second and third sub-theses follow from the first one. Although the conceptions of the authors just mentioned are not strictly coincident, they all agree that secularization is the declining importance of religious institutions as secular institutions progressively take over their previous roles in society, and the waning of religious thinking, practices, and dictates in people's lives. As such, secularization is a multidimensional concept. Individual religiosity is also multidimensional (Mueller 1980), but its structure (number of distinct dimensions and their nature) is still debatable (Meuleman and Billiet 2011; Lemos et al. 2019). The simple 'believing'-'belonging' paradigm introduced by Grace Davie (1990) is often used as a background framework in secularization studies, although other authors consider that 'behaving' must also be considered (Keysar 2014).

The authors mentioned above contributed to clarifying the concept of secularization, but other theorists elaborated on the mechanisms for explaining its progress. According to the classical theory of Comte, Marx, Durkheim, Weber, and Spencer, secularization is just the consequence of modernization and scientific progress, but this theory was later criticized by several scholars such as Casanova (1994; 2001) and Wilson (2016). Norris and Inglehart (2011) proposed that secularization at the individual level is explained in terms of existential security. They hypothesized that because religion helps people cope with the stress caused by the risks they face, religiosity should be high in countries that are poor, ravaged by natural disasters or war, etc., and low in safe and wealthy countries. Another explanation is that the increasing levels of education increase secularization at the individual level, because rational and scientific thinking is not compatible with religious worldviews. Thus, the increment of compulsory education leads to the people's distancing from religion (Hungerman 2014; Norris and Inglehart 2011). The importance of parental socialization for the intergenerational transmission of religiosity was demonstrated in many empirical studies (Gervais and Najle 2015; Merino 2012; Storm and Voas 2012; Voas and Storm 2012). For example, the frequency of attendance at church services during the formative years (11–12) is

a significant predictor of belief in God (Gervais and Najle 2015). Lemos and Puga-Gonzalez (2021) confirmed this conclusion for the Scandinavian countries (Denmark, Norway, and Sweden) in the period 2008–2018. Therefore, the increasing parental indifference to religion and the consequent decrease of churchgoing frequency break the intergenerational transmission of religiosity, so that younger generations become increasingly secular.

The theories of secularization mentioned above relate systemic and structural factors to the micro (individual) level, with emphasis on the latter. The so-called 'market theory' of religion proposed by Iannaccone, Stark, and others (Finke and Stark 2003; Iannaccone 1991; 1992; Stark and Iannaccone 1994) provides an explanation of secularization based on the principles of economy. In this concept, religion is a market subject to the law of supply and demand in which churches, religious institutions, and religious groups are the suppliers, and the religious believers and practitioners are the customers. Zuckermann (2009; 2020) proposed one possible explanation for secularization in Scandinavia based on this theory. He argued that the monopoly of religion held by the National Churches due to the privileged status granted to them by the states led to their poor performance in fulfilling the people's needs and thus to the Churches' decline. More recently, Stolz and Könemann proposed a theory of 'religious-secular competition' that can be viewed as an extension of the 'market theory' (Stolz and Könemann 2016; Stolz 2020). In this theory, religious institutions compete with secular ones as suppliers in a market fulfilling the individuals' needs. Following the deep societal transformations in the 1960s, the conditions progressively turned in favor of the secular institutions, as their diversity and efficiency became more appealing in the "me society" (Stolz and Könemann 2016). Furseth et al. (2018) also mentioned the rise of secular worldview organizations like the Norwegian Humanist Association, and other smaller organizations of similar type in Denmark, Finland, Iceland, and Sweden, that may compete with the National Churches in providing fulfillment of similar individual needs. However, the National Churches' membership losses to the religiously unaffiliated is far more significant than the growth of these (still) minority organizations.

The declining of the confidence in churches and religious institutions is also important in the context of secularization. Hoffmann (1998; 2013) and Nicolet and Tresch (2009) considered the relationship between secularization and the decline of the authority and confidence in religious institutions. Nicolet and Tresch (2009) proposed that confidence in churches is a form of 'judgmental belonging' distinct from affiliation. Mistrust in the churches is an attitudinal response that may be influenced by mediatized scandals involving clerics (like child abuse and affairs by members of the clergy), and by the churches' official positions on matters like abortion and

sexual orientation that conflict with other societal values and principles (Donnelly and Inglis 2010; Field 2014; Keysar 2014). Furseth et al. (2018) proposed that such scandals and controversies provide a possible explanation for the trend toward disaffiliation from the Church of Iceland. In the Nordic countries, disappointment with the National Churches and conflicts between the latter's positions and the mainstream attitudes on subjects like family, sexual behavior, etc., are thought to be a major cause of disaffiliation (Lüchau and Andersen 2012; Niemelä 2007). Lemos and Puga-Gonzalez (2021) showed that the lack of confidence in churches and religious institutions and thinking that the churches have too much power in society have a strong negative association with belief in God in the Scandinavian countries. However, they did not analyze the (admittedly) more direct association between mistrust in the National Churches and disaffiliation from them.

Because the National Churches have strong historical ties with the states and religion is highly institutional in the Nordic countries, it is interesting to compare confidence in the Churches and confidence in other institutions such as the Parliament and the Government. Kasselstrand and Eltanani (2013) analyzed the association between individuals' affiliation to national churches, other Protestant churches, or religious un-affiliation, and trust in the state in four Nordic countries: Denmark, Finland, Norway, and Sweden. They used Analysis of Variance (ANOVA) and multiple linear regression, based on the European Social Survey (ESS) data from 2008 and 2010, to analyze the significance of group differences in trust in the state (more specifically, trust in parliament and trust in politicians). They concluded that those belonging to national churches have higher trust in the state than the religiously unaffiliated, and suggested that further research was needed on the topic. Using regression analysis based on the ISSP 2008 data, Lövheim et al. (2018) found that gender, age, and self-image as a religious person were significant predictors of trust in the Parliaments of Denmark, Finland, Norway, and Sweden, although with small coefficients of determination (R^2). More recently, From (2022) analyzed how the nonreligious (humanists and individuals indifferent to religion) relate to the politics of religion in Norway. It is therefore relevant to the present work to examine the association between confidence in churches and other state secular institutions.

These theoretical studies have been complemented by empirical works based on data sets obtained in large surveys focused on the differences between Protestants and the religiously unaffiliated. Urstad (2017) studied the characteristics of the religiously unaffiliated in Norway using the KFO data set and a logistic regression model. He found that holding a belief in God or a Higher Power is a significant inhibitor of disaffiliation, whereas having friends with different worldviews has the opposite effect. These conclusions are consistent with the idea that the worldviews of the religiously unaffiliated are significantly different from the Protestants', which Lemos

and Puga-Gonzalez later confirmed for the whole of Scandinavia (Lemos and Puga-Gonzalez 2021). Urstad's work showed important facts about the characteristics of the religiously unaffiliated, particularly the significance of the association between disaffiliation and (dis)belief, but also has some limitations. First, it only includes Norway. Second, it does not account for the influence of the type of socialization (religious or nonreligious) in the respondent's current affiliation status. Finally, it relates belief in God or a Higher Power with religious affiliation, but does not consider how belief changes (and hence changing worldviews) might lead to disaffiliation.

Using the 1998, 2008, and 2018 rounds of the ISSP Religion survey, Lemos and Puga-Gonzalez (2021) showed that both belief in God and affiliation with the National Churches decayed in Scandinavia between 1998 and 2018. They also studied the association between confidence in churches and religious organizations, the conditions of religious or nonreligious socialization, and several background variables (gender, age, educational level, marital status, and urban/rural living community), with the level of belief in God using multinomial logistic regression models. Lemos and Puga-Gonzalez found that the distributions of belief in God and confidence in churches are very different for Protestants and the religiously unaffiliated, and that the association between confidence in churches and belief in God is particularly strong. Based on their results, they proposed that confidence in churches and religious organizations is important for the conceptualization of 'belonging' and a key variable in the dynamics of religion in Scandinavia (Lemos and Puga-Gonzalez 2021).

The results of the works mentioned above suggest that disaffiliation from the National Churches represents an effective distancing from religion, despite the influence of culture and tradition, because the decays of 'belonging' and 'believing' are intertwined. They contain useful elements for the study of secularization in the Nordic societies, but left important questions unanswered. For example, is the decision to disaffiliate mostly a consequence of mistrust in the National Churches or of a rejection of religious worldviews? How strong is the influence of religious socialization? Are there significant country differences in the odds of disaffiliating? These questions provided the basis and motivation for the present work, as well as the rationale for the selection of the variables and statistical methods to be described below.

DATA AND METHODS

DATA DESCRIPTION

In this work, I used the data from the 2018 round of the ISSP Religion survey, which is the only one that includes the five Nordic countries (Norway participated in the 1991, 1998, 2008, and 2018 rounds, and Denmark and Sweden in the last three rounds only). I retrieved the data from the

ZA7570_v2 data file (Group 2020), which is available from the GESIS Leibniz Institute for the Social Sciences repository (Leibniz-Institute-for-Social-Sciences, 2008). The data processing was done using R (R-Core-Team 2019).

Figure 1 shows a spine plot of the religious denomination in the Nordic countries, based on the ISSP Religion 2018 data. The two main groups are Protestants and the religiously unaffiliated. The other religious denominations have small shares, but there are some interesting points to note. For example, Finland has a minority of Christian Orthodox respondents (1.91%), reflecting the historical ties with Russia and the fact that the Orthodox Church of Finland is also considered a national church (alongside the Evangelical Lutheran Church of Finland). Iceland has a minority of “Other religion,” and upon closer inspection, it turns out that about 1.66% of respondents still believe in the old Nordic Gods. Finally, Norway has the largest share of Muslim respondents (1.63%) of the five countries.

Figures 2 and 3 show the percentages of respondents in each country that answered “No religion” as their religious group, and “I don’t believe in God” in the variable v20 “Please indicate which statement comes closest to express what you believe about God,” respectively, in the 2018 round of the ISSP Religion survey. Clearly, the Nordic countries are not among the countries with the largest shares of the religiously unaffiliated, but the Scandinavian countries (Denmark, Norway, and Sweden) rank among those with the largest percentages of unbelievers in God. Moreover, the percentages of people that do not believe in God are significantly lower in Finland and in Iceland than in the three Scandinavian countries. This difference

suggests that one should be careful not to draw sweeping generalizations when discussing the low religiosity among the Nordics. It is also important to note that in some countries, the percentages of the religiously unaffiliated in the 2018 ISSP Religion survey sample differ significantly from those reported in other sources. For Denmark and Finland, the percentages are 23% and 31% respectively, and do not differ so much from the 25% reported in the *Folkkirken* website (Church-of-Denmark 2022) and the 27% reported in *Statistics Finland* (Statistics-Finland 2022) for 2018. However, the discrepancies are larger for Iceland, Norway, and Sweden. In the latter country, the ISSP percentage is about 30%, but the *Svenska Kirken* (Church-of-Sweden 2022) reports 41% for 2018. The origin of these discrepancies is unclear but is probably associated with the ISSP sample. It would therefore be advisable to seek confirmation of this work’s results using other data sources or future rounds of the ISSP Religion survey.

For the reasons stated in the Introduction, I removed the respondents affiliated with minority Protestant churches to avoid possible contamination of the results. For brevity, from here on, I will designate the two groups included in the analyses as ‘Protestant|Main’ and ‘None.’ In addition, I further restricted the sample to respondents that were raised as ‘Protestant’ or ‘None’ and whose parents also belonged to one of these groups. This was necessary to correctly define the predictors related to religious socialization in the logistic regression models of disaffiliation. Table 1 shows the frequencies and percentages of each denomination in the Nordic countries in the resulting sample.

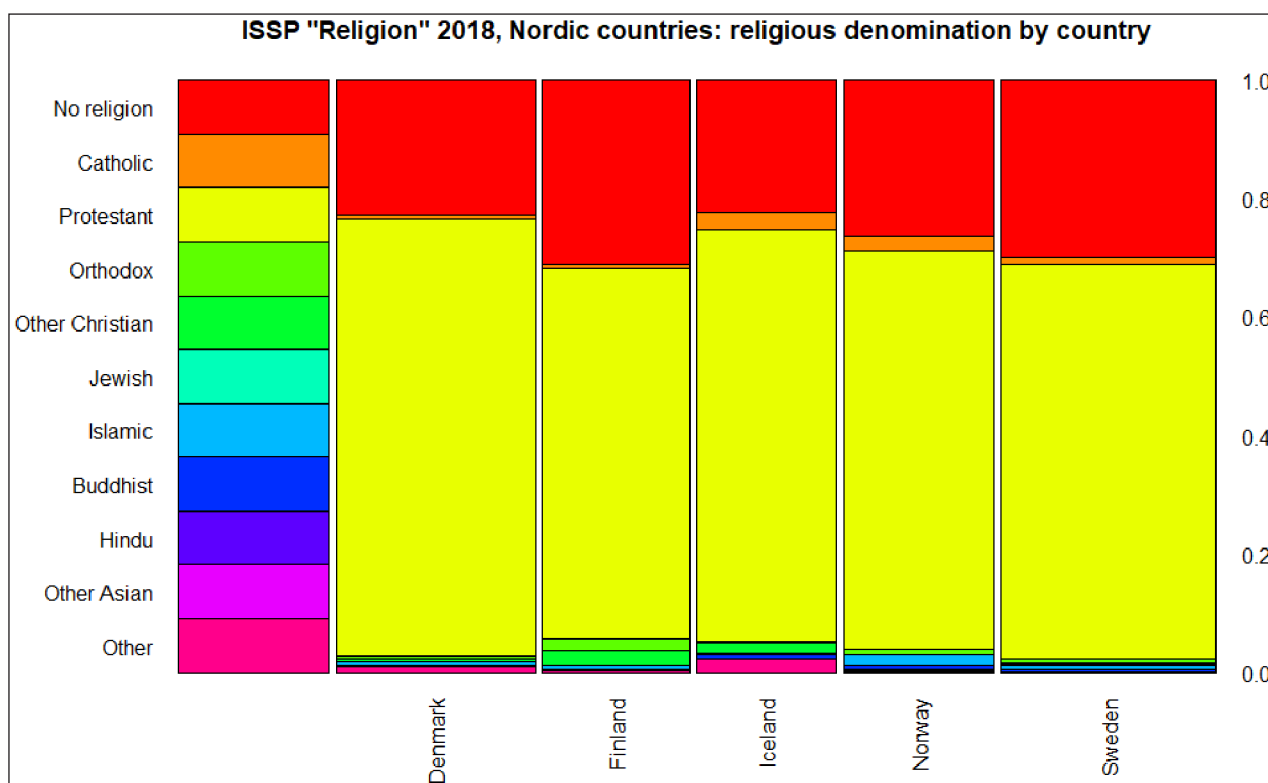


Figure 1 Spine plot of the proportions of each religious denomination in the Nordic countries, based on the ZA7570_v2 data file (Group, 2020).

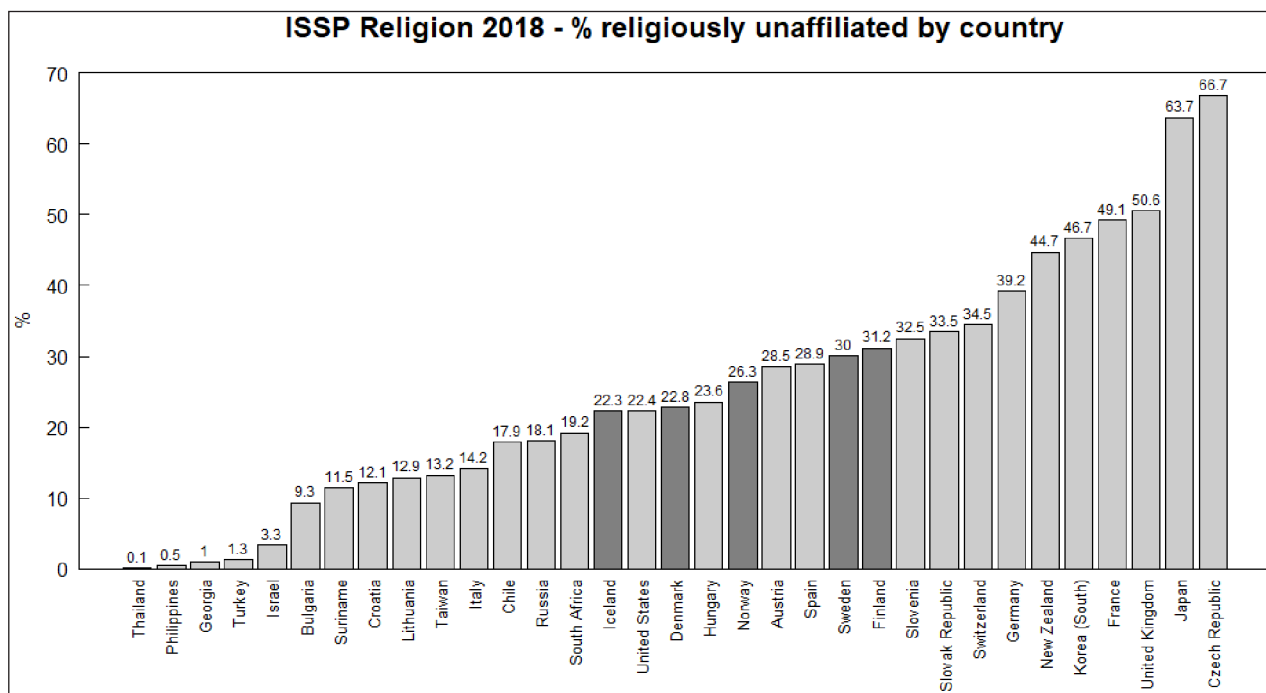


Figure 2 Percentages of respondents in each country that answered “No religion” as their religious group (RELIGGRP) in the 2018 round of the ISSP Religion survey.

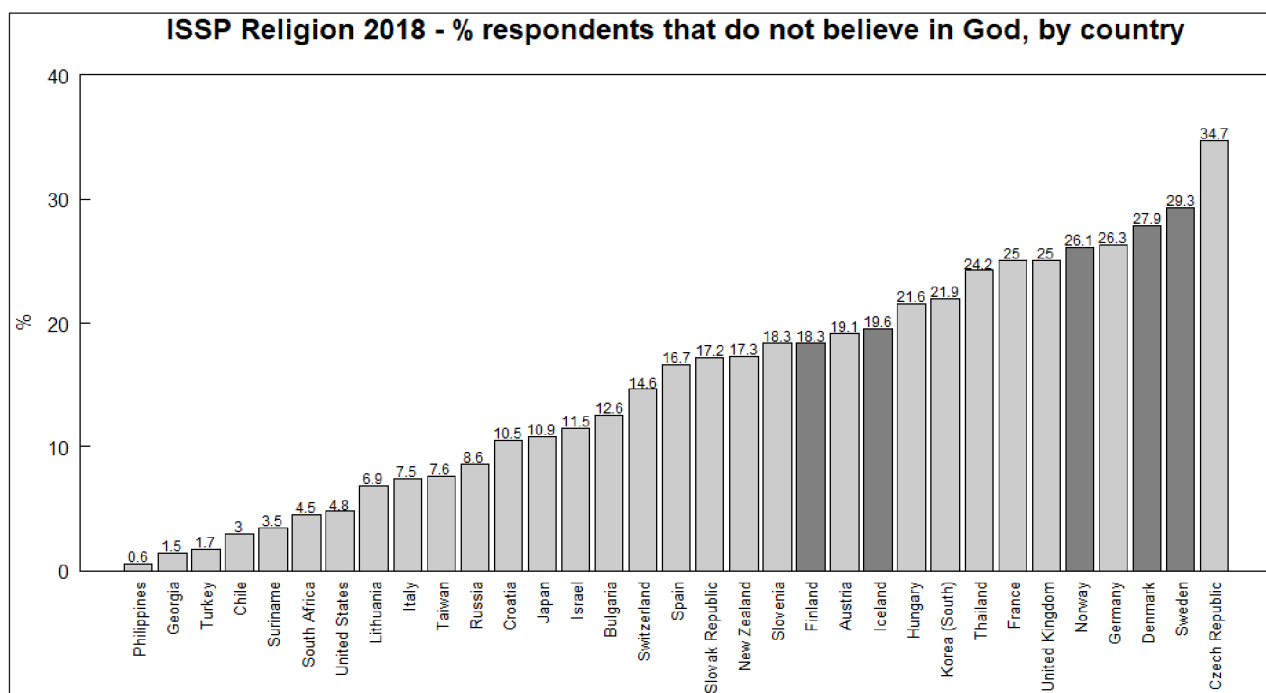


Figure 3 Percentages of respondents in each country that answered “I don't believe in God” in variable v20 (“Please indicate which statement comes closest to expressing what you believe about God”) in the 2018 ISSP Religion survey.

VARIABLES’ SELECTION

The present study consisted of two steps. In the first step, I performed a characterization of the similarities and differences between the two groups (‘Protestant|Main’ and ‘None’) in the five Nordic countries using 15 variables related to religiosity, and the levels of confidence in two secular state institutions (the Parliament, and Courts and the legal system), as shown in Table 2. In the second step, I selected another set of variables related to confidence

in churches, confidence in the Parliament and in Courts and the legal system, change of belief in God, attitudes toward the importance of religion, religious or nonreligious socialization, and demographic controls, as shown in Table 3, and used these variables as predictors of disaffiliation (response variable) in two logistic regression models (one without and another with the country as a control variable).

I first analyzed the group differences in the levels of confidence in Churches and the other two secular state

variables, to determine whether the association between these levels was significant. Then, I used fifteen variables related to religiosity to perform the group comparisons of the average levels of religiosity. Notice that fifteen is the maximum number that can be represented in the Chernoff faces plots in the R function `aplpack::faces` (Wolf

2019). These variables are the ones in Table 2 except for confidence in the Parliament and in Courts and the legal system. They describe religious beliefs, confidence in churches, attitude toward the power of the churches and the political influence of religious leaders, relevance of religion, and religious involvement (frequency of attendance at church services, frequency of praying, and self-image as an (un)religious person). Here, the variables related to confidence in churches, the perceived power of churches and the influence of religious leaders describe the ‘judgmental side’ of ‘belonging’ (Field 2014; Hoffmann 1998; 2013; Kasselstrand, Couse, and Sanchez 2017; Lemos and Puga-Gonzalez 2021; Nicolet and Tresch, 2009).

To compute the logistic regression models in the second stage of the work, I first selected the respondents that were raised Protestant (RELIN = ‘Protestant|Main’), which corresponded to a sample size $N = 4565$ (86.64% of the sample described in Table 1) and created a response variable Y with value = 0 if DENOMINATION = ‘Protestant|Main’ and = 1 if DENOMINATION = ‘None.’ Thus, $Y = 1$ for the respondents that disaffiliated from one of the National Churches.

	NONE	PROTESTANT MAIN	TOTAL
Denmark	259 (19.43%)	1074 (80.57%)	1333
Finland	310 (31.09%)	687 (68.91%)	997
Iceland	164 (23.84%)	524 (76.16%)	688
Norway	236 (25.43%)	692 (74.57%)	928
Sweden	371 (28.04%)	952 (71.96%)	1323
Total	1340 (25.43%)	3929 (74.57%)	5269

Table 1 Frequency table of religious denomination for the groups ‘None’ and ‘Protestant|Main’ and their corresponding percentages for the Nordic countries, for respondents that were raised in one of these two groups, and whose parents also belonged to one of these groups, based on the ZA7570_v2 data file (Group 2020).

ABBREVIATED DESIGNATION	ISSP 2018 VARIABLE	QUESTION LABEL	CATEGORIES	% MISSING
BELIEF.GOD	v20	Please indicate which statement comes closest to expressing what you believe about God	6	0.64
BELIEF.PERSONAL.GOD	v27	There is a God who concerns Himself with every human being personally	5	0.94
GOD.LIFE.MEANING	v29	To me, life is meaningful only because God exists	5	6.07
BELIEF.AFTERLIFE	v22	Do you believe in life after death?	4	11.06
BELIEF.HEAVEN	v23	Do you believe in heaven?	4	11.82
BELIEF.HELL	v24	Do you believe in hell?	4	11.09
BELIEF.MIRACLES	v25	Do you believe in religious miracles?	4	10.62
CONFIDENCE.CHURCHES	v9	How much confidence do you have in Churches and religious organizations	5	5.86
CONFIDENCE.PARLIAMENT	v7	How much confidence do you have in Parliament?	5	3.04
CONFIDENCE.COURTS.LEGSYSTEM	v10	How much confidence do you have in Courts and the legal system	5	3.14
POWER.CHURCHES	v16	Do you think that churches and religious organizations in this country have too much power or too little power?	5	15.16
REL.LEADERS.NOT.INFL.VOTE	v12	Religious leaders should not try to influence how people vote in elections.	5	2.78
REL.RELEVANCE.TODAY	v56	In [COUNTRY], religion is just as relevant to life today as it was in the past.	5	9.02
REL.REPRESENTS.PAST	v55	In [COUNTRY], religion represents the past and not the future.	5	10.23
ATTEND	ATTEND	Frequency of attendance at church services	8	1.83
FREQ.PRAYING	v43	About how often do you pray?	11	1.18
HOW.RELIGIOUS	v48	Would you describe yourself as ... (1-Extremely religious; ... ; 7-Extremely non-religious)	7	3.69

Table 2 Summary description of the 2018 ISSP Religion survey variables (data file ZA7570_v2) used in the multiple comparisons between the ‘Protestant|Main’ and the ‘None’ across the five Nordic countries.

ABBREVIATED DESIGNATION	ISSP 2018 VARIABLE	MEANING	CATEGORIES	% MISSING
DENOMINATION	CC_RELIG	Current religious denomination	2	0.00
RELIN	v38_country	Religion in which respondent was raised in	2	0.00
CHG.BELIEF.GOD	v21	Changes of belief in God*	3	23.11
CONFIDENCE.CHURCHES	v9	Confidence in churches and religious organizations*	4	4.58
CONFIDENCE.PARLIAMENT	v7	Confidence in the Parliament*	4	1.62
CONFIDENCE.COURTS.LEGSYSTEM	v10	Confidence in Courts and the legal system*	4	2.06
REL.RELEVANCE.TODAY	v56	Relevance of religion today vs in the past	5	6.66
REL.REPRESENTS.PAST	V55	Religion represents past, not future	5	7.86
NUM.AFFILIATED.PARENTS	v34_country, v36_country	Number of affiliated parents	3	0.00
ATTEND.11.12	v42	Frequency of respondent's attendance at church services during the formative period*	5	2.45
MOTHER.ATTEND	v40	Frequency of mother attendance at church services during the respondent's formative period*	5	4.56
FATHER.ATTEND	v41	Frequency of father attendance at church services during the respondent's formative period*	5	5.72
SEX	SEX	Sex	2	0.13
AGE.GROUP	AGE	Age group	5	0.26
DEGREE	DEGREE	Educational degree	5	0.72
URBRURAL	URBRURAL	Type of living community	4	0.81
COUNTRY	country	Country	5	0.00

Table 3 Summary description of the 2018 ISSP Religion survey variables (data file ZA7570_v2) initially selected for use in the logistic regression models of disaffiliation from the Evangelical Lutheran Churches in the Nordic countries. The variables marked with an asterisk were transformed as described in the text prior to their use in the models.

The covariates in the logistic regression models (Table 3) were selected as follows:

- CHG.BELIEF.GOD describes whether the respondent changed his/her belief in God (never believed, used to believe but no longer do, did not believe but believes now, and always believed). The change of worldview regarding belief in God may be an important predictor of religious disaffiliation and is important for answering the second research question of the present work;
- CONFIDENCE.CHURCHES represents the 'judgmental side of belonging' and its inclusion relates directly to the second research question of the present work;
- CONFIDENCE.PARLIAMENT and CONFIDENCE.COURTS.LEGSYSTEM describe the influence of trust or mistrust in these two secular state institutions on disaffiliation. The results of the first stage of the work justified the inclusion of these predictors;
- The variables REL.RELEVANCE.TODAY and REL.REPRESENTS.PAST describe the strength of the association between the perception of (ir)relevance of religion in modern life and disaffiliation from the National Churches;
- The number of affiliated parents (NUM.AFFILIATED.PARENTS) and the frequency of attendance at church

- services during the formative period (ATTEND.11.12) describe how strongly the respondent's type of socialization (a causal antecedent) may influence the decision to disaffiliate;
- The control variables SEX (gender), AGE.GROUP (age group), DEGREE (educational degree), and URBRURAL (type of living community) were included in the models because they were found significant in previous works related to the present study (Lemos and Puga-Gonzalez 2021);
- Finally, country was also included as a control variable in the second logistic regression model, to compare its effect with those of the other predictors.

VARIABLES' TRANSFORMATION

I transformed some of the selected covariates to compute the logistic regression models, as shown in Table 3. Such transformations consisted of merging or altering the categories in the original variables to ensure that the cell counts in the contingency tables $Y \times \text{covariate}$ were at least ten (Hosmer, Lemeshow, and Sturdivant 2013). For example, in CONFIDENCE.CHURCHES, I merged the categories "Complete confidence" and "A great deal of confidence" into 'A great deal|Complete confidence.' CONFIDENCE.PARLIAMENT and CONFIDENCE.COURTS.LEGSYSTEM were transformed likewise. The covariates

ATTEND.11.12, MOTHER.ATTEND, FATHER.ATTEND, DEGREE, and URBRURAL were transformed in a similar way.

In other cases, the information in the original variable was changed to fit the logistic regression models' purpose. For example, to specify the covariate CHG.BELIEF.GOD, I changed the original four categories in the ZA7570_v2 variable v21 "I don't believe in God now and I never have," "I don't believe in God now, but I used to," "I believe in God now, but I didn't use to," and "I believe in God now and I always have" into 'No change,' 'Stopped,' 'Started,' and 'No change.' Thus, the influence of belief changes in both directions could be compared with the base category of no change (which includes both firm believers and nonbelievers).

In the ZA7570_v2 data file, the respondent's age is stored as an integer number. I discretized this variable using the UK Office of National Statistics Harmonized Principle 3 (standard = 2) and stored the result in the AGE.GROUP covariate. All the categories of the transformed covariates in the logistic regression models will appear below in their respective coefficient tables in the Results section.

METHODS

I started the first part of the study by comparing the distributions of trust in Churches with trust in Parliament and the Courts and legal system in the five countries and for both groups. I began by representing the ten distributions in the form of bar graphs, and found (not surprisingly) that trust in Churches is much lower among the unaffiliated than among the Protestants in all five countries. Then, I compared the differences between Protestants and unaffiliated using the Wilcoxon-Mann-Whitney test for all three institutions, with the alternative hypothesis that the levels of trust are lower among the unaffiliated. I found statistically significant differences for trust in Parliament and the Courts and legal system only in Finland and Sweden. These results suggest that the relationship between religious affiliation and trust in institutions may still be significant, as suggested by previous studies (Kasselstrand and Eltanani 2013). Therefore, these two variables were included as predictors in the logistic regression models of disaffiliation.

For the qualitative group comparisons of religiosity, I used Chernoff faces plots (Chernoff 1973) based on the medians of the 15 religiosity variables shown in Table 2, using the R function `aplpack::faces` (Wolf 2019), now excluding confidence in the Parliament and confidence in Courts and the legal system.

The Chernoff faces plots are suggestive, but only provide qualitative comparisons. Thus, they are best complemented with multiple comparisons tests, which were done in two stages. First, I tested for significant differences in the medians in at least one group using the Kruskal-Wallis H-test (Kruskal and Wallis 1952), using the R function `stats::kruskal.test` (R-Core-Team 2019). Upon rejection of the null hypothesis of the H-test, I performed post hoc analyses to determine whether each group

was different from each other group using the Conover-Iman test (Conover and Iman 1979) using the R function `PMCMRplus::kwAllPairsConoverTest` (Pohlert 2021), with Holm p-value adjustment (Holm 1979) for a conservative control over the familywise-error rate (Shaffer 1995; Wright 1992). For the visualization of results of the multiple comparisons, I represented the computed matrix of adjusted p-values as a set of comparison letters using the R-function `mutlcompView::multcompLetters` (Graves, Piepho, and Selzer 2019). In this representation, groups sharing a letter on a comparison variable are considered similar with respect to that variable. Because it would be tedious and hardly informative to perform multiple comparison tests for the 15 variables in the faces plots, I selected a subset of these that are representative of 'believing,' 'belonging,' and 'involvement.'

In the second part of this work, dedicated to answering the second research question, I first computed a polychoric correlation matrix for the covariates in Table 3 (Fox 2016; Revelle 2022) and removed the variables that would pose multicollinearity problems according to the criterion described in Hair et al. (2009). According to this criterion, covariates with a correlation coefficient with absolute value greater or equal to 0.7 will create multicollinearity problems and should not be included simultaneously in a regression model. Finally, I computed two logistic regression models with the response variable Y as described above, one without and another with COUNTRY as control variable. I used the *probit* link and analyzed the coefficients' relative importance (or effect size) in terms of the odds ratios and their 95% confidence intervals. For assessing the models' fit, I used the deviance *D*, the number of degrees of freedom *df*, the Nagelkerke pseudo-*R*² (Nagelkerke 1991), and the Akaike information criterion (AIC).

RESULTS

CONFIDENCE IN THE CHURCHES, THE PARLIAMENT, AND COURTS AND THE LEGAL SYSTEM

Figure 4 shows barplots of the distributions of confidence in churches and religious organizations, the Parliament, and in Courts and the legal system for the five Nordic countries.

Clearly, the difference of confidence in churches between the religiously unaffiliated and the Protestants is much larger than the corresponding differences for the Parliament and Courts and the legal system, in all the Nordic countries. The religiously unaffiliated tend to hold a negative attitude toward churches, as shown by the large percentages of their responses in the levels "No confidence at all" and "Very little confidence." In Iceland and Sweden, even the percentages of them with "Some confidence" is quite low. This contrasts with the distributions of confidence in the Parliament and in Courts and the legal system, for which the difference between the two groups is far smaller in the five countries.

To analyze the statistical significance of the differences between the levels of confidence in the three institutions among the two groups, I applied the Wilcoxon-Mann-Whitney test for each institution and in the five countries separately, with the alternative hypothesis that the level of confidence is lower for the unaffiliated. The obtained results are as follows:

1. Confidence in Churches is lower among the unaffiliated in all five countries ($p < 0.001$ in all tests). This result was evident from Figure 4.
2. In Finland and Sweden, confidence in the Parliament is lower among the unaffiliated ($p < 0.001$ in both

cases). In Denmark, Iceland, and Norway, the differences between Protestants and the unaffiliated are not statistically significant.

3. In Finland and Sweden also, confidence in the Courts and the legal system is lower among the unaffiliated ($p = 0.002$ and $p = 0.02$, respectively), with no significant differences in the other three countries.

Apart from group comparisons, it is also useful to evaluate the strength of the association between the confidence in the three institutions, for both groups and in the five countries.

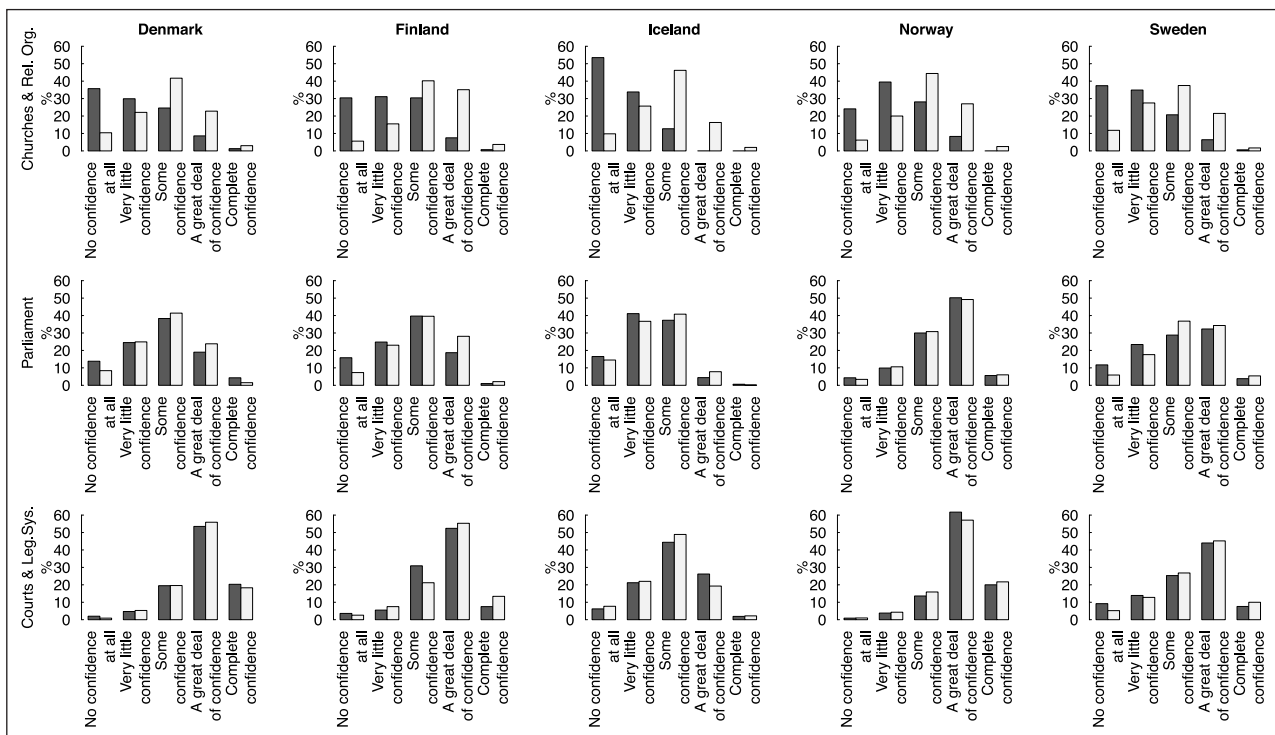


Figure 4 Distributions of confidence in churches and religious organizations (top row), the Parliament (middle row), and in Courts and the legal system (bottom row) for the five Nordic countries (in five columns). The distributions for the religiously unaffiliated and the Protestants affiliated with the National Churches are represented by dark and light bars, respectively.

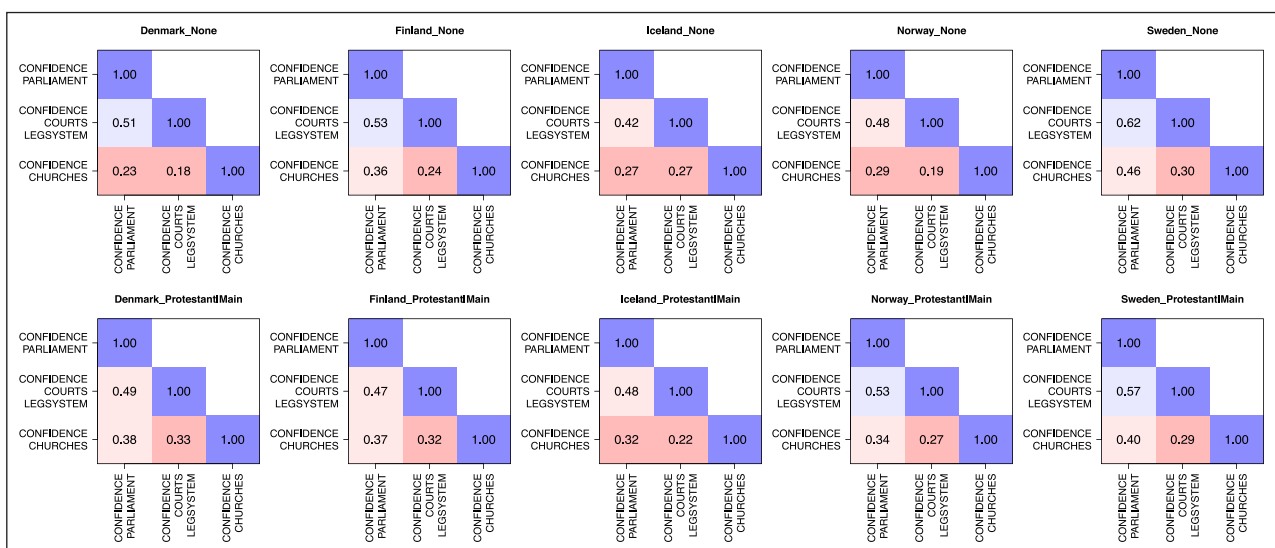


Figure 5 Correlation between confidence in Churches and religious organizations, the Parliament, and Courts and the legal system for the religiously unaffiliated and Protestants affiliated with the National Churches in the Nordic countries.

Figure 5 shows the correlation matrices of the confidence in the three institutions (churches, Parliament, and Courts and the legal system) for the two groups in the five Nordic countries. In general, the correlations between confidence in the Churches and the two secular state institutions is weaker than the correlations between the latter two, but there is a moderate association with confidence in the Parliament and the Courts, particularly among the Protestants. Hence, while confidence in the Parliament and the Courts are not directly related to religiosity, they are potentially significant predictors of disaffiliation, and so were included in the logistic regression models of disaffiliation presented below.

MULTIPLE GROUP COMPARISONS OF RELIGIOSITY VARIABLES

Figure 6 shows the Chernoff faces plots of the medians of the 15 variables described in Table 2 for the two groups of interest in the five Nordic countries. Table 4 shows the correspondence between the variables and the face features.

The differences between the ‘None’ and ‘Protestant|Main’ in each country are far more pronounced than the differences between these two groups across the countries in many aspects of individual religiosity. In other words, the ‘None’ are all very different from the ‘Protestant|Main.’ In particular, the two groups are very distinct in relation to the perception of the relevance of religion today and in the future (size of the face), confidence in the Churches and the perception of the Churches’ power in society (size of the eyes), beliefs in afterlife and miracles (size of the nose), and belief in God (hair’s style). Neither group looks completely uniform across the five countries. For example, the ‘None’ in Denmark and Iceland appear to be somewhat different than their counterparts in Finland, Norway, and Sweden. Likewise, some religiosity levels of the ‘Protestant|Main’ in Finland and Iceland are distinct from those in the three Scandinavian countries.

The two groups are very different, yet it is interesting to find some apparent similarities between them. For example, all the ‘None’ but also the ‘Protestant|Main’ in the three Scandinavian countries share the same average levels in the variable “To me, life is meaningful only because God exists” (style of the hair). In Denmark, both the ‘None’ and the ‘Protestant|Main’ have the same (low) average frequency of praying, which is like that of the ‘None’ in Iceland (width of the mouth). Perhaps the most striking similarity is that the structure of the face (attitude towards religious leaders not influencing how people vote) is the same for both groups in Denmark and Iceland, and for Protestants in Finland and Norway.

FEATURE IN THE CHERNOFF FACE REPRESENTATION		VARIABLE (TABLE 2)
Face	Height of face	REL.RELEVANCE.TODAY
	Width of face	REL.REPRESENTS.PAST
	Structure of face	REL.LD.NOT.INFL.VOTE
Mouth	Height of mouth	ATTEND
	Width of mouth	FREQ.PRAYING
	Smiling	HOW.RELIGIOUS
Eyes	Height of eyes	CONFIDENCE.CHURCHES
	Width of eyes	POWER.CHURCHES
Hair	Height of hair	BELIEF.GOD
	Width of hair	BELIEF.PERSONAL.GOD
	Style of hair	GOD.LIFE.MEANING
Nose	Height of nose	BELIEF.AFTERLIFE
	Width of nose	BELIEF.MIRACLES
Ears	Width of ear	BELIEF.HEAVEN
	Height of ear	BELIEF.HELL

Table 4 Correspondence between the features depicted in the Chernoff faces plots and the variables described in Table 2.

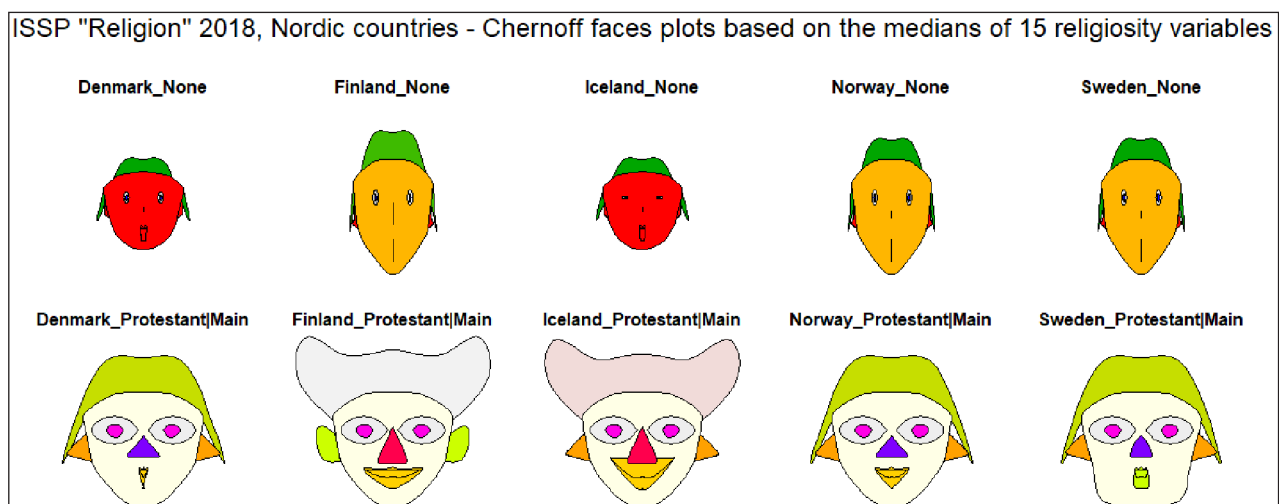


Figure 6 Chernoff faces plots of the medians of the 15 religiosity variables described in Table 2, for the religiously unaffiliated and Protestants affiliated with the Evangelical Lutheran Churches in the five Nordic countries. The association between the variables and the face features is shown in Table 4.

While the faces plots provide suggestive graphical multidimensional representations, the technique of multiple comparisons provides a more rigorous way of testing for group differences in one variable within a sample. I performed multiple comparisons as follows. First, I selected a subset of the initial 15 variables, namely BELIEF.GOD and BELIEF.AFTERLIFE (for ‘religious beliefs’), ATTEND and HOW.RELIGIOUS (for ‘involvement’), CONFIDENCE.CHURCHES and POWER.CHURCHES (for the ‘judgmental side’ of ‘belonging’), and finally REL.RELEVANCE.TODAY (an overall indicator of the importance of religion). Then, I performed Kruskal-Wallis H-tests for the selected variables, all of which led to the rejection of the null hypothesis of no statistically significant difference between the group distributions. Following the rejection of the H-tests, I performed post-hoc Conover-Iman multiple comparison tests with Holm p-value adjustment for each selected variable and the ten groups (country|group).

The results of the multiple comparisons showed that no ‘None’ group was similar to a ‘Protestant|Main’ group in any of the selected variables, in agreement with the qualitative comparisons provided by the Chernoff faces plots. Therefore, I ran a second batch of multiple comparison tests in which I tested the five ‘None’ groups separately from the five ‘Protestant|Main’ groups. This had the advantage of reducing the number of multiple comparisons from 45 to 20 (ten for the ‘Protestant|Main’ and ten for the ‘None’), which in turn reduced the familywise-error rate, increased the power of the tests, and facilitated the interpretation of the results.

The output of the Conover-Iman test is best interpreted by assigning letters to each group based on the matrix of adjusted p-values, such that groups sharing a letter in one variable can be considered similar in that variable. Table 5 shows the results of the multiple comparisons for the five ‘None’ and the five ‘Protestant|Main’ groups, for the variables mentioned above. The most salient results shown in this table are:

- The religiosity of the two groups is indeed very different in the five Nordic countries: there are no common letters between a ‘None’ and a ‘Protestant|Main’ group in any of the variables shown in Table 5.
- For the variables considered, the religiously unaffiliated seem to be more homogeneous than the Protestants affiliated with the National Churches, in the sense that the number of country differences that are significant (equal to the number of distinct letters across the countries for each variable) is generally smaller among the religiously unaffiliated.

LOGISTIC REGRESSION MODELS OF DISAFFILIATION

I built two logistic regression models of disaffiliation from the National Churches in the Nordic countries, one without the country as a control variable and another including it. Recall that in these models I used the subsample of the respondents who were raised as affiliated with the National Churches, with the response variable $Y = 0$ if the

	DENMARK	FINLAND	ICELAND	NORWAY	SWEDEN
None					
BELIEF.GOD	a	b	a	a	a
BELIEF.AFTERLIFE	ab	c	cd	a	bd
ATTEND	a	b	ab	a	a
HOW.RELIGIOUS	a	b	ab	ab	ab
CONFIDENCE.CHURCHES	ab	a	c	a	b
POWER.CHURCHES	ab	ac	c	ab	b
REL.RELEVANCE.TODAY	a	b	a	b	b
Protestant Main					
BELIEF.GOD	E	F	F	G	H
BELIEF.AFTERLIFE	E	F	G	H	E
ATTEND	E	F	F	G	H
HOW.RELIGIOUS	E	F	G	F	E
CONFIDENCE.CHURCHES	E	F	G	H	G
POWER.CHURCHES	E	F	EF	EF	E
REL.RELEVANCE.TODAY	E	FG	F	G	F

Table 5 Group comparison letters obtained from the adjusted p-value matrices for the variables BELIEF.GOD, ATTEND, and CONFIDENCE.CHURCHES, obtained in the Conover-Iman multiple comparisons tests for the ‘None’ and ‘Protestant|Main.’ Groups sharing a letter on a variable are considered similar on that variable.

respondent was still affiliated and $Y = 1$ otherwise, and the predictors shown in Table 3 above.

Figure 7 shows a graphical representation of the correlation matrix of the ordinal predictors shown in Table 3 (SEX is dichotomous but can be assumed ordinal for computing correlations). Following the criterion in Hair et al. (2009), I removed the variables on the frequency of the parents' attendance at church services (MOTHER.ATTEND and FATHER.ATTEND), for these would introduce multicollinearity problems with respect to the frequency of the respondent's attendance during the formative period (ATTEND.11.12).

Table 6 shows the results of the logistic regression model without the country as a control variable. This table includes the model coefficients (B) and their 95% confidence intervals, the odds ratios $OR = \text{Exp}(B)$ and their 95% confidence intervals, and the coefficients' p-values. This table also includes information on the reference levels for each predictor, the number of complete observations used for computing the model, the deviance D , the number of degrees of freedom df , the AIC, and Nagelkerke's pseudo- R^2 goodness-of-fit index.

The following guidelines are useful for the interpretation of this table:

- The odds ratios show how the odds of obtaining a positive response change for the corresponding

predictor level relative to the predictor's reference level. Odds ratios greater or lesser than one mean enhancement or inhibition of the response, respectively. For example, having no confidence at all in churches and religious organizations increases the odds of disaffiliation by nearly sixfold ($\text{Exp}(B) = 5.995$) relative to having some confidence, but having a great deal of confidence halves the odds ($\text{Exp}(B) = 0.503$).

- Coefficients with $p < 0.05$ are significantly different from zero. Thus, to compare the effect sizes (relative influence on the odds of a positive response) of different predictors, it is necessary to consider both the coefficients' significance and how much $\text{Exp}(B)$ or $1/\text{Exp}(B)$ (if $\text{Exp}(B) < 1$) of the statistically significant coefficients deviate from one.
- The Nagelkerke pseudo- R^2 (Nagelkerke 1991) is a goodness-of-fit index often used in logistic regression models as a counterpart of the determination coefficient R^2 (or adjusted R^2) in multiple regression models (Pregibon 1981). A value of 0.310 can be considered as acceptable for social science studies. The AIC is an index that represents a trade-off between goodness-of-fit and parsimony (number of model coefficients) which is useful for comparing and selecting statistically equivalent models (Hosmer, Lemeshow, and Sturdivant 2013).

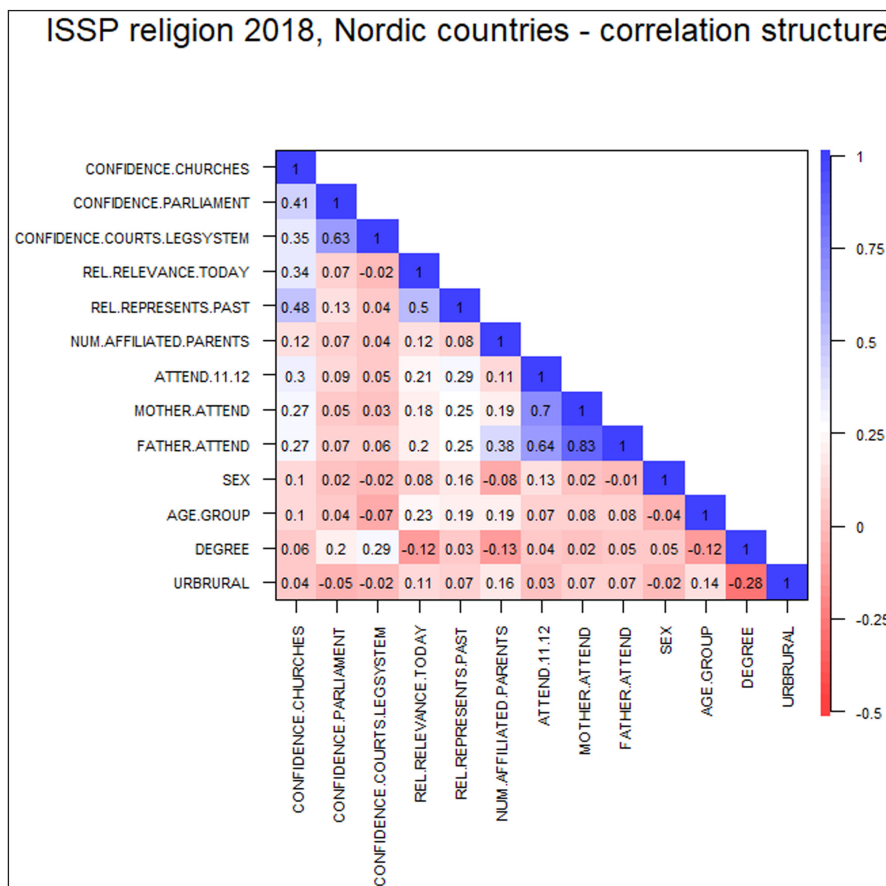


Figure 7 Correlation structure of the ordinal predictors initially selected for the logistic regression models.

Using these guidelines and considering the p-values and odds ratios of the coefficients, the salient aspects in Table 6 can be summarized as follows:

- Confidence in churches is the strongest predictor of disaffiliation, for having no confidence at all in them increases the odds of disaffiliation nearly sixfold and having very little confidence by more than twice relative to the (relatively neutral) reference level of having some confidence. Moreover, and conversely, having complete confidence nearly halves the odds of disaffiliating.
- Having had one or both unaffiliated parents increases the odds of disaffiliating more than twice relative to the reference level (both parents affiliated with the National Churches). It is important to notice that this effect is far more significant for just one unaffiliated parent than for both parents unaffiliated.
- The frequency of church attendance during the formative period is also a significant predictor of disaffiliation. Never going to church or doing so less than yearly increases the odds of disaffiliating by a factor $\text{Exp}(B) \cong 1.67$, while having attended at least once a month nearly halves the odds ($\text{Exp}(B) \cong 0.54$) relative to the reference level.
- Ceasing to believe in God increases the odds of disaffiliating by a factor $\text{Exp}(B) \cong 1.61$, but the coefficient is not significant for the reverse situation ($p = 0.085$). Hence, disbelief in God is a weaker predictor of disaffiliation than mistrust in the Churches or nonreligious socialization during the formative period.

- Confidence in the Parliament is a relatively weak predictor of disaffiliation. Having a great deal or total confidence in the Parliament *increases* the odds of disaffiliating by a factor $\text{Exp}(B) \cong 1.44$, but for the other levels the effect is not significant relative to having some confidence. Confidence in Courts and the legal system is not a significant predictor of disaffiliation.
- As far as the perceptions about the relevance of religion are concerned, strong disagreement with the statement that religion is relevant today as it was in the past increases the odds of disaffiliating by a factor $\text{Exp}(B) \cong 1.44$ and strong disagreement that religion represents the past and not the future reduces the odds of disaffiliating by nearly two and one half ($1/\text{Exp}(B) \cong 2.49$).

Considering now the socio-demographic variables, Table 6 shows that relative to the reference group 0–24 years the odds of disaffiliating increase between about 2 and 2.4 for the age groups 25–44, 45–64, and 65–74, and is not significant for the older group (+75) only. This result tells that the trend toward disaffiliation is significant in a wide age interval (25–74). Besides the age group, the other significant socio-demographic predictor of disaffiliation is living in a big city, which increases the odds of disaffiliating by a factor $\text{Exp}(B) \cong 1.36$. In this model, gender and the educational degree do not come out as significant predictors of disaffiliation.

Table 7 shows the results of the logistic regression model that includes the country as a control variable. Using the same guidelines as before, this table shows that the introduction of the new control variable changed the

	B	SE	(2.5%, 97.5%)	EXP(B)	(2.5%, 97.5%)	p	
(Intercept)	-2.930	***	0.348	(-3.635, -2.225)	0.053	(0.026, 0.108)	< 0.001
CHG.BELIEF.GOD							
Stopped	0.477	***	0.115	(0.244, 0.710)	1.611	(1.276, 2.034)	< 0.001
Started	-0.585	.	0.340	(-1.272, 0.103)	0.557	(0.280, 1.108)	0.085
CONFIDENCE.CHURCHES							
NoneAtAll	1.791	***	0.157	(1.474, 2.108)	5.995	(4.367, 8.232)	< 0.001
VeryLittle	0.850	***	0.127	(0.593, 1.108)	2.340	(1.809, 3.028)	< 0.001
GreatDealOf Complete	-0.688	***	0.189	(-1.071, -0.306)	0.503	(0.343, 0.736)	< 0.001
CONFIDENCE.PARLIAMENT							
NoneAtAll	0.035		0.207	(-0.384, 0.454)	1.036	(0.681, 1.575)	0.864
VeryLittle	0.027		0.144	(-0.264, 0.318)	1.027	(0.768, 1.374)	0.852
GreatDealOf Complete	0.364	**	0.129	(0.102, 0.625)	1.439	(1.107, 1.868)	0.005
CONFIDENCE.COURTS.LEGSYSTEM							
NoneAtAll	0.056		0.287	(-0.525, 0.638)	1.058	(0.592, 1.893)	0.844
VeryLittle	-0.210		0.196	(-0.608, 0.187)	0.811	(0.544, 1.206)	0.284
GreatDealOf Complete	-0.002		0.134	(-0.274, 0.270)	0.998	(0.760, 1.310)	0.988

(Contd.)

	B	SE	(2.5%,	97.5%)	EXP(B)	(2.5%,	97.5%)	p
REL.RELEVANCE.TODAY								
StronglyAgree	-0.207	0.344	(-0.904,	0.489)	0.813	(0.405,	1.631)	0.547
Agree	-0.343	0.218	(-0.784,	0.098)	0.710	(0.457,	1.103)	0.115
Disagree	0.003	0.159	(-0.319,	0.325)	1.003	(0.727,	1.384)	0.985
StronglyDisagree	0.361 *	0.179	(-0.002,	0.723)	1.435	(0.998,	2.061)	0.044
REL.REPRESENTS.PAST								
StronglyAgree	0.161	0.179	(-0.202,	0.524)	1.175	(0.817,	1.689)	0.369
Agree	-0.101	0.134	(-0.372,	0.170)	0.904	(0.689,	1.185)	0.450
Disagree	-0.440 *	0.176	(-0.796,	-0.083)	0.644	(0.451,	0.920)	0.012
StronglyDisagree	-0.914 **	0.339	(-1.601,	-0.227)	0.401	(0.202,	0.797)	0.007
NUM.UNAFFILIATED.PARENTS								
1	0.759 ***	0.198	(0.357,	1.161)	2.136	(1.429,	3.193)	< 0.001
0	0.788 .	0.418	(-0.058,	1.634)	2.199	(0.944,	5.124)	0.059
ATTEND.11.12								
Never	0.510 ***	0.133	(0.242,	0.779)	1.665	(1.274,	2.179)	< 0.001
LessThanYearly	0.318 *	0.128	(0.059,	0.577)	1.374	(1.061,	1.781)	0.013
Monthly	-0.612 *	0.292	(-1.202,	-0.022)	0.542	(0.301,	0.978)	0.036
Weekly	-0.153	0.316	(-0.793,	0.486)	0.858	(0.452,	1.626)	0.628
SEX								
Female	-0.176 .	0.104	(-0.387,	0.035)	0.839	(0.679,	1.036)	0.091
AGE.GROUP								
25-44	0.865 ***	0.233	(0.394,	1.336)	2.375	(1.483,	3.804)	< 0.001
45-64	0.688 **	0.229	(0.223,	1.152)	1.990	(1.250,	3.165)	0.003
65-74	0.836 **	0.245	(0.339,	1.332)	2.307	(1.404,	3.789)	0.001
75+	0.442	0.349	(-0.264,	1.149)	1.556	(0.768,	3.155)	0.205
DEGREE								
None/Lowest	-0.672	0.514	(-1.712,	0.367)	0.511	(0.181,	1.443)	0.191
Secondary	0.220	0.177	(-0.139,	0.578)	1.246	(0.870,	1.782)	0.214
LowerTertiary	-0.065	0.179	(-0.427,	0.297)	0.937	(0.652,	1.346)	0.717
UpperTertiary	0.250	0.183	(-0.120,	0.620)	1.284	(0.887,	1.859)	0.171
URBRURAL								
Farm	-0.030	0.198	(-0.430,	0.370)	0.970	(0.651,	1.448)	0.878
CountryVillage	-0.216	0.168	(-0.556,	0.125)	0.806	(0.573,	1.133)	0.199
OutskirtsBigCity	0.190	0.147	(-0.108,	0.488)	1.209	(0.898,	1.629)	0.197
BigCity	0.307 *	0.141	(0.020,	0.593)	1.359	(1.020,	1.809)	0.030

Table 6 Coefficients (B) and their standard errors (SE) and 95% confidence intervals, odds ratios (Exp(B)) and their 95% confidence intervals, and p-values obtained in the logistic regression model without the country as control variable. p-value: < 0.1 (.); < 0.05 (*); < 0.01 (**); < 0.001 (***)

N = 3184 D = 2504.2 df = 39 AIC = 2582.2 Nagelkerke pseudo-R² = 0.310.

Reference categories: CHG.BELIEF.GOD – No change; CONFIDENCE.CHURCHES – Some confidence; CONFIDENCE.PARLIAMENT – Some confidence; CONFIDENCE.COURTS.LEGSYSTEM – Some confidence; REL.RELEVANCE.TODAY – Neither agree nor disagree; REL.REPRESENTS.PAST – Neither agree nor disagree; NUM.AFFILIATED.PARENTS – 2; ATTEND.11.12 – Yearly; SEX – Male; AGE.GROUP – 0–24; DEGREE – Post secondary; URBRURAL – Town/Small city.

	B		SE	(2.5%,	97.5%)	EXP(B)	(2.5%,	97.5%)	p
(Intercept)	-3.571	***	0.372	(-4.323,	-2.820)	0.028	(0.013,	0.060)	< 0.001
CHG.BELIEF.GOD									
Stopped	0.465	***	0.118	(0.226,	0.703)	1.592	(1.254,	2.020)	< 0.001
Started	-0.506		0.348	(-1.209,	0.196)	0.603	(0.298,	1.217)	0.146
CONFIDENCE.CHURCHES									
NoneAtAll	1.750	***	0.161	(1.426,	2.074)	5.755	(4.162,	7.957)	< 0.001
VeryLittle	0.827	***	0.130	(0.565,	1.090)	2.286	(1.759,	2.974)	< 0.001
GreatDealOf Complete	-0.750	***	0.193	(-1.139,	-0.361)	0.472	(0.320,	0.697)	< 0.001
CONFIDENCE.PARLIAMENT									
NoneAtAll	0.066		0.210	(-0.359,	0.491)	1.068	(0.698,	1.634)	0.753
VeryLittle	0.076		0.147	(-0.221,	0.373)	1.079	(0.802,	1.452)	0.605
GreatDealOf Complete	0.268	*	0.136	(-0.006,	0.542)	1.307	(0.994,	1.719)	0.048
CONFIDENCE.COURTS.LEGSYSTEM									
NoneAtAll	0.030		0.295	(-0.565,	0.626)	1.030	(0.568,	1.870)	0.918
VeryLittle	-0.179		0.199	(-0.581,	0.223)	0.836	(0.559,	1.250)	0.369
GreatDealOf Complete	0.023		0.140	(-0.260,	0.307)	1.023	(0.771,	1.359)	0.869
REL.RELEVANCE.TODAY									
StronglyAgree	-0.130		0.352	(-0.840,	0.579)	0.878	(0.432,	1.784)	0.711
Agree	-0.343		0.221	(-0.789,	0.103)	0.710	(0.454,	1.108)	0.121
Disagree	-0.057		0.162	(-0.384,	0.270)	0.945	(0.681,	1.310)	0.724
StronglyDisagree	0.485	**	0.184	(0.113,	0.856)	1.624	(1.120,	2.354)	0.008
REL.REPRESENTS.PAST									
StronglyAgree	0.237		0.184	(-0.134,	0.608)	1.267	(0.875,	1.837)	0.197
Agree	-0.074		0.136	(-0.348,	0.201)	0.929	(0.706,	1.223)	0.587
Disagree	-0.460	*	0.179	(-0.821,	-0.099)	0.631	(0.440,	0.906)	0.010
StronglyDisagree	-0.878	*	0.351	(-1.586,	-0.169)	0.416	(0.205,	0.845)	0.012
NUM.AFFILIATED.PARENTS									
1	0.829	***	0.201	(0.423,	1.236)	2.291	(1.527,	3.442)	< 0.001
0	0.978	*	0.432	(0.106,	1.849)	2.659	(1.112,	6.353)	0.024
ATTEND.11.12									
Never	0.544	***	0.138	(0.266,	0.822)	1.723	(1.305,	2.275)	< 0.001
LessThanYearly	0.335	*	0.132	(0.068,	0.601)	1.398	(1.070,	1.824)	0.011
Monthly	-0.522	.	0.293	(-1.115,	0.070)	0.593	(0.328,	1.073)	0.075
Weekly	-0.064		0.314	(-0.699,	0.570)	0.938	(0.497,	1.768)	0.838
SEX									
Female	-0.261	*	0.107	(-0.476,	-0.046)	0.770	(0.621,	0.955)	0.014
AGE.GROUP									
25-44	0.850	***	0.236	(0.373,	1.327)	2.340	(1.452,	3.770)	< 0.001
45-64	0.702	**	0.234	(0.230,	1.174)	2.018	(1.259,	3.235)	0.003
65-74	0.838	**	0.251	(0.332,	1.345)	2.312	(1.394,	3.838)	0.001
75+	0.582		0.357	(-0.140,	1.303)	1.790	(0.869,	3.680)	0.104

(Contd.)

	B	SE	(2.5%, 97.5%)	EXP(B)	(2.5%, 97.5%)	p
DEGREE						
None/Lowest	-0.960	0.527	(-2.024, 0.103)	0.383	(0.132, 1.108)	0.068
Secondary	-0.081	0.193	(-0.470, 0.308)	0.922	(0.625, 1.361)	0.673
LowerTertiary	-0.113	0.190	(-0.497, 0.271)	0.893	(0.608, 1.311)	0.554
UpperTertiary	0.136	0.196	(-0.260, 0.531)	1.146	(0.771, 1.701)	0.489
URBRURAL						
Farm	-0.115	0.202	(-0.523, 0.292)	0.891	(0.593, 1.339)	0.568
CountryVillage	-0.260	0.173	(-0.609, 0.089)	0.771	(0.544, 1.093)	0.133
OutskirtsBigCity	0.099	0.151	(-0.207, 0.404)	1.104	(0.813, 1.498)	0.515
BigCity	0.381	**	(0.088, 0.674)	1.464	(1.092, 1.962)	0.009
COUNTRY						
Finland	1.500	***	(1.143, 1.858)	4.482	(3.136, 6.411)	< 0.001
Iceland	0.433	*	(0.024, 0.842)	1.542	(1.024, 2.321)	0.033
Norway	0.931	***	(0.554, 1.308)	2.537	(1.740, 3.699)	< 0.001
Sweden	0.970	***	(0.619, 1.320)	2.638	(1.857, 3.743)	< 0.001

Table 7 Coefficients (B) and their standard errors (SE) and 95% confidence intervals, odds ratios (Exp(B)) and their 95% confidence intervals, and p-values obtained in the logistic regression model with the country as an additional control variable. p-value: < 0.1 (.); < 0.05 (*); < 0.01 (**); < 0.001 (***).

Reference categories: CHG.BELIEF.GOD – No change; CONFIDENCE.CHURCHES – Some confidence; CONFIDENCE.PARLIAMENT – Some confidence; CONFIDENCE.COURTS.LEGSYSTEM – Some confidence; REL.RELEVANCE.TODAY – Neither agree nor disagree; REL.REPRESENTS.PAST – Neither agree nor disagree; NUM.AFFILIATED.PARENTS – 2; ATTEND.11.12 – Yearly; SEX – Male; AGE.GROUP – 0–24; DEGREE – Post secondary; URBRURAL – Town/Small city; COUNTRY – Denmark.

N = 3184 D = 2419.9 df = 43 AIC = 2505.9 Nagelkerke pseudo-R² = 0.344.

relative importance of several coefficients. Nevertheless, the main conclusions obtained with the previous model remain essentially unchanged. Confidence in churches still comes on top in enhancing the odds of disaffiliating for a very negative attitude, or in inhibiting disaffiliation for a great deal or total confidence. However, in this second model, the country also becomes a (surprisingly) strong predictor of disaffiliation. More specifically, being Finn increases the odds of disaffiliating relative to Denmark (the reference country) by a factor $\text{Exp}(B) \cong 4.48$ and being Norwegian or Swedish increases the odds by $\text{Exp}(B) \cong 2.54$ and 2.64 respectively. For Iceland, the odds are still significantly higher than for Denmark ($\text{Exp}(B) \cong 1.54$).

The large odds ratios associated with the country are best interpreted by considering a logistic regression model with COUNTRY as the single predictor ($Y \sim \text{COUNTRY}$), which would predict the odds or (equivalently) the probability of disaffiliation based only on the country's proportion of people that did disaffiliate. This proportion reflects the cumulative effect of multiple path-dependent and country-specific factors over the recent years, in which the trends toward disaffiliation were significant but probably different across the countries (as shown by Lemos and Puga-Gonzalez (2021) for Scandinavia in the period 1998–2018). Nevertheless, the logistic regression model $Y \sim \text{COUNTRY}$ only predicts 3.6%

of pseudo-variance (using Nagelkerke's index), whereas the model $Y \sim \text{CONFIDENCE.CHURCHES}$ already predicts 22.4% of pseudo-variance! These and other aspects will be further discussed in the next section. In the model with the country as an additional control variable, gender comes out as a significant (albeit weak) predictor of disaffiliation, as the odds of women disaffiliating are less than one relative to men ($\text{Exp}(B) \cong 0.77$).

I compared the two logistic regression models (Tables 6 and 7) using the likelihood ratio test and found that the model represented by Table 7 is statistically superior ($p < 0.001$).

DISCUSSION

I will now discuss how the results may contribute to answering the research questions stated in the Introduction.

The first research question amounts to a comparison between the 'radiographs of religiosity' of the Protestants affiliated with the National Churches and the religiously unaffiliated across the five countries. The Chernoff faces and the multiple comparison tests between the two groups showed in a strikingly clear way that the differences between Protestants and the religiously

unaffiliated are far more salient than the differences of each of these two groups across the countries. Lemos and Puga-Gonzalez (2021) reached a similar conclusion in their comparison of belief in God and confidence in churches between these two groups in Denmark, Norway, and Sweden. The present results extend theirs by showing that the differences are significant on several other variables, like the religious beliefs (in a personal God, afterlife, heaven, and hell), the relevance of religion to one's life, and of course the self-image as a religious person, and for two more countries (Finland and Iceland). In fact, Figure 6 strongly suggests that turning non-religious really changes one's face!

Some authors argue that the dimensions of religiosity do not decay at the same rate and that religious beliefs are more persistent than participation (Davie 1990; Lugo 2012). The results of the group comparisons did not disprove this differential decay but showed that, in the end, detachment from religion among the Nordics ultimately encompasses 'believing,' 'belonging,' involvement, and attitudes toward the role of churches in the society.

The two logistic regression models (one without and another with the country as a control variable) yielded valuable information about what enhances or inhibits disaffiliation, thus contributing to answering my second research question. The odds ratios associated with each model coefficient show how strongly each variable predicts disaffiliation. In what follows, I will discuss the influence of each predictor variable, from strongest to weakest, and then of the socio-demographic control variables (age group, gender, educational degree, living environment, and country).

CONFIDENCE IN CHURCHES, THE PARLIAMENT, AND COURTS AND THE LEGAL SYSTEM

Both logistic regression models showed that mistrust in the churches is clearly the strongest predictor of disaffiliation (of all the independent variables included in the models), while having a great deal or complete confidence in them significantly inhibits disaffiliation. This finding could be expected from the results of the group comparisons, because the distributions of confidence in churches of the two groups are markedly different. Moreover, a logistic regression model with confidence in churches and religious institutions already explains 22% of the pseudo-variance, while the model described in Table 7 predicts 34% of that pseudo-variance. The logistic regression models further show that the influence of confidence in the National Churches seems to be asymmetric, because rejection due to mistrust seems to be stronger than the binding effect of trust.

The results of the logistic regression models of disaffiliation confirm the recent findings by Lemos and Puga-Gonzalez (2021), who showed that confidence in churches is a key variable for explaining the dynamics of religion in Scandinavia, and probably in a wider context.

It also lends support to the argument that confidence in a church is an important element of 'belonging' because of its judgmental and emotional dimension (Hoffman 1998; 2013; Nicolet and Tresch 2009), and needs to be considered in secularization studies. In the specific case of the Nordic countries, the results of the present study also confirm the viewpoints of Niemelä (2007) and Lüchau and Andersen (2012) that disappointment with the National Churches is a major cause of disaffiliation.

In contrast with confidence in churches, confidence in the Parliament is a weak predictor of disaffiliation, and confidence in Courts and the legal system is not significant for predicting disaffiliation. This result is not surprising, for the multiple comparisons on the confidence in institutions in the first part of the present work showed that the distributions of confidence in the Parliament were significantly different for Protestants and the unaffiliated in Finland and Sweden only, and confidence in courts and the legal system is not significantly different in any of the five Nordic countries. Although there might be a significant association between political and religious orientation, as shown by the correlation structure in Figure 7, that association is probably weak. Thus, the results of the present work do not lend much confirmation to the results by Kasselstrand and Eltanani (2013), who found evidence that people affiliated with the National Churches have higher trust in the state in a study on Denmark, Finland, Norway, and Sweden. However, the present work is based on different methodology, data, and time points, and is restricted to the two major groups ('Protestant|Main' and 'None'). Thus, the results of the two studies cannot be directly compared. In summary, the relationship between religious (un)affiliation and confidence in state institutions in the Nordic countries remains a potential topic for further research.

THE INFLUENCE OF RELIGIOUS OR NONRELIGIOUS SOCIALIZATION DURING THE FORMATIVE PERIOD

The importance of parental religiosity and participation for the intergenerational transmission of religiosity is well-known (Storm and Voas 2012). Lemos and Puga-Gonzalez (2021) showed that the conditions of religious or nonreligious socialization during the formative period significantly influence the level of belief in God in Scandinavia. The results in Tables 6 and 7 show that the conditions of parental socialization during the formative period also influence whether (or not) the Nordics later decide to disaffiliate from the National Churches. Recall that the reference levels for the two variables that describe the socialization conditions, NUM.AFFILIATED.PARENTS and ATTEND.11.12, were '2' and 'Yearly,' respectively. Thus, we see that having had just one unaffiliated parent more than doubles the odds of disaffiliating. This result is consistent with the theory of Credibility Enhancing Displays (CREDS) (Heinrich 2009) because exposure to

conflicting religious experiences between the parents (the most important role figures in the formative period) is conducive to breaking the bond with religion later in life (Langston, Speed, and Coleman 2020; Lanman 2012; Lanman and Burmester 2017). The statement by Norenzayan and Gervais in their article on the origins of religious disbelief (Norenzayan and Gervais 2013):

“Tellingly, even children of religious parents in Scandinavia are likely to become nonbelievers if they do not witness credibility enhancing displays of their parents’ faith.”

seems to also hold for disaffiliation in all the Nordic countries.

The logistic regression models showed that people that never went to church or did so less than yearly during the formative period have higher odds of disaffiliating, whereas people that attended church with monthly frequency have significantly lower odds of doing so. This result confirms the importance of ritual participation during the formative period for establishing psychological bonds with religion (Lawson and McCauley 1990; McCauley and Lawson 2002). The present results also suggest that even a low frequency of church attendance, probably on special occasions like Christmas or Easter, is enough to maintain significant bonds to the National Churches in the Nordic countries.

CEASING TO BELIEVE IN GOD: THE EFFECT OF CHANGING WORLDVIEWS?

Belief in God is of course a core element of religiosity, particularly in Christian-traditional cultures, and so we would expect that stopping to believe in God would be a strong predictor of disaffiliation. However, the results of the logistic regression models show that ceasing to believe in God increases the odds of disaffiliating, but by much less than having no confidence at all in the National Churches. Mistrust in churches is thus a much more powerful predictor of disaffiliation than disbelief in God.

Does starting to believe in God inhibit disaffiliation? The logistic regression models are inconclusive about this, because the corresponding coefficients are not statistically significant. This is probably due to the small proportion of the respondents that were raised as Protestants and did not believe in God, but acquired that belief later in life.

These results again confirm the viewpoints of Niemelä (2007) and Lüchau and Andersen (2012), according to which disaffiliation in the Nordic countries is mainly due to disappointment with the religious institutions and not to a loss of faith. But how can we interpret this fact? Intuitively, one may think that stopping to believe in God radically changes the way one fulfills the need for a coherent view of reality, thus demolishing a critical pillar of the whole edifice of religiosity, after which religion itself no longer makes sense.

I propose the following explanation. Affiliation to and confidence in a Church represent different but strongly associated forms of ‘belonging.’ The former is institutional and cultural (Demerath 2000), and the latter is judgmental (Hoffmann 1998; 2013; Nicolet and Tresch 2009). Thus, the association between variables representing two forms of the same dimension is stronger than the one between a variable representing a rejection of ‘believing’ and another representing rejection of ‘belonging.’

Notice that this interpretation does not imply or suggest that belief in God is less important than confidence in churches for studying religion in Nordic countries, because the causal paths leading to the rejection of belief in God (Norenzayan and Gervais 2013) and rejection of religious institutions (Field, 2014; Kasselstrand, Couse, and Sanchez 2017; Lüchau and Andersen, 2012) are probably distinct.

PERCEPTIONS ABOUT THE RELEVANCE AND TIMELINESS OF RELIGION

People that disagree that religion is relevant today as it was in the past have higher odds of disaffiliating, but thinking that it is still as relevant today as it was in the past does not work as an inhibitor. On the other hand, disagreement with the statement that religion represents the past and not the future significantly inhibits (nearly halves) the odds of disaffiliation, but agreement with that statement has no significant effect. However, these two variables are not as influential as confidence in churches, or the conditions of religious socialization discussed above.

I propose the following interpretation of the results just mentioned. First, the two predictors in question (REL.RELEVANCE.TODAY and REL.REPRESENTS.PAST) describe relatively generic attitudes toward religion as a cultural and social phenomenon, but are not associated with any definite form of ‘believing,’ ‘belonging,’ or religious priming. Second, the effect of these two variables on the response seems to be asymmetric, in the sense that rejection of the statements in the questions’ labels (see Table 2) has a stronger impact than agreement. This type of asymmetry probably exists for other predictors. One plausible explanation for these asymmetries is that they are rooted in the very general two-system model of the mind’s working proposed by Kahneman and Tversky, according to which negativity consistently dominates positivity in people’s judgments (Kahneman 2011). This is also a plausible explanation for the asymmetric effect of trust and mistrust in the National Churches on disaffiliation.

INFLUENCE OF THE SOCIO-DEMOGRAPHIC VARIABLES

The two socio-demographic variables with a strong influence on the odds of disaffiliating relative to their reference levels are the country and the age group. Living in a big city also increases the odds of disaffiliating. The results of the present work are not conclusive on whether

the odds of disaffiliating are different for women and men, and (somewhat surprisingly) no evidence was found that the educational degree influences the odds of disaffiliating.

Country differences

The second logistic regression model (Table 7) showed that, relative to Denmark, the odds of disaffiliation are 4.5 higher in Finland, 2.5 and 2.6 times higher in Norway and Sweden respectively, and 1.5 times higher in Iceland. This result reflects the fact that the proportions of the respondents that disaffiliated are significantly higher in Norway and Sweden than in Denmark, and even more so in Finland. These differences result from the cumulative influence of country-specific and path-dependent aspects of secularization during the last decades not accounted-for by predictors such as confidence in churches, etc., and by other control variables. The explanation of these country differences requires a thorough analysis that lies outside the scope of the present work, but it is possible to propose a few plausible interpretations. For example, Denmark is the only Nordic country with a state church. Among the Scandinavian countries, Sweden is the one where secularization is more advanced, and there is some evidence that, in recent decades, Norway changed from a situation similar to Denmark's to another closer to Sweden's (Lemos and Puga-Gonzalez, 2021). Iceland and Finland may have had slightly different socio-political evolutions relative to the Scandinavian countries, and in Finland the historical influence of the orthodox church may have played a role. Furseth et al. (2018) proposed explanations for the differences in the trends toward disaffiliation based on immigration and adherence to communities with different worldviews (humanist and spiritual), but the small proportions of respondents belonging to these minority groups in the ISSP Religion 2018 sample do not lend much support to these explanations. It is probable that these differences have to do with the National Churches performance (scandals, conflicts with the societies' majority attitudes on certain issues, etc.). Confidence in the National Churches partly reflects these influences, but does not fully explain them. In summary, the explanation of the differences in the trends toward disaffiliation in the Nordic countries remains a topic for further study.

Age group

Both logistic regression models showed that disaffiliation is significant for three age groups other than the reference (0–24 years), particularly for the 25–44 and 65–74 years groups. Thus, for this discretization of the original AGE variable and choice of the reference group, AGE.GROUP is a relatively strong predictor of disaffiliation. This result shows another interesting aspect about disaffiliation in the Nordic countries. Young people in the 0–24 years group (reference category) are probably baptized and registered as members of one of the National Churches by their parents, and thus they answer 'Protestant' as

the religion they were raised in (recall that I removed the Protestants affiliated with minority churches). At some point later in their lives (for one or more reasons) they decide to disaffiliate, the odds of which are strong and significant for all age groups other than the reference except for the oldest group (75+). Thus, the exodus from the Evangelical Lutheran Churches occurs for a wide age interval. It would indeed be interesting to study the age at which the Nordics decide to disaffiliate, as done by Langston, Speed, and Coleman (2020) in their study on atheism. However, such a study would require knowledge about the age at which the respondents disaffiliated (for those who did) that is not available in the ISSP Religion data set.

Size and type of the living community

There is evidence that, at least in the Western countries, religion is less prevalent in cities than in small communities and in the countryside, which Stölz and Könemann attribute to the difference of the corresponding lifestyles (Stolz and Könemann 2016). The results of the present work suggest that, in the Nordic countries, living in a big city increases the odds of disaffiliating by about 1.4 relative to the reference category (Town/Small city), but living in a smaller community (farm, countryside, or even the outskirts of a big city) neither enhances nor inhibits disaffiliation.

Educational degree

There is empirical evidence that higher education levels lead to declining religiosity. Previous studies on religion in the Scandinavian countries showed that education is a significant factor of disaffiliation from the National Churches (Lüchau and Andersen 2012). Urstad found that education is a significant predictor of disaffiliation in Norway (Urstad 2017). In addition, Lemos and Puga-Gonzalez (2021) recently showed that having a university degree inhibits strong forms of belief in God (i.e., certainty about the existence of God) in Scandinavia.

In the present work's logistic regression models of disaffiliation, only one coefficient of DEGREE is significant, and that coefficient is not the same in both models ('Upper tertiary' in the first and 'None/Lowest' in the second). This discrepancy is probably due to the introduction of a strong control (COUNTRY) in the second model, which altered the effect size and significance of some coefficients associated with weaker predictors (in this case DEGREE). Thus, the results of the present work are inconclusive regarding the influence of the educational degree on disaffiliation: even if that influence is significant, it should be relatively mild. In comparison, the influence of the educational degree on belief in God found in previous studies is stronger, probably because education contributes more to changing the individuals' worldviews than to countering the traditional and cultural roots of religiosity.

Gender

It is well-known from many empirical studies that women are more religious than men (Flere 2007; Francis 1997; Trzebiatowska and Bruce 2012; Voicu 2009; Walter and Davie 1998), and several possible explanations have been proposed for this fact (Mahlamäki 2012; Trzebiatowska and Bruce, 2012). Recently, Urstad (2017) found that gender is not a significant predictor of disaffiliation in Norway, but Lemos and Puga-Gonzalez (2021) showed that women have consistently higher levels of belief in God than men in the Scandinavian countries. According to the results shown in Tables 6 and 7, gender is a significant predictor of disaffiliation in the second model only, with women having slightly lower odds of disaffiliating than men ($\text{Exp}(B) \cong 0.77$). Thus, disaffiliation appears to be at most weakly dependent on gender. One plausible explanation is that affiliation with the National Churches is an expression of 'cultural religion.' As such, it is less affected by the same deeper psychological differences between women and men that lead to different levels of religious beliefs or involvement.

LIMITATIONS

The present work unraveled many important aspects of the dynamics of religion in the Nordic countries but left some interesting questions unanswered. For example, how would the religiosity variables of those affiliated with minority Protestant churches, Catholics, Muslims, and other religions compare with those of the Protestants affiliated with the National Churches? Would the similarities and differences be the same across the five countries?

Another important question would be the investigation of the trends toward affiliation or disaffiliation among these minority religious groups. Even more interesting (and important) would be how each group sees every other group as potentially threatening. Neither of these questions could be answered using the 2018 round of the ISSP Religion Questionnaire due to the small representation of the minority groups in the sample.

The present work did not address the relationship between affiliation with the National Churches and with spiritual or humanistic organizations, which at present is an important research topic connected with well-being and prosociality (Galen 2018; Hammer and Cragun 2019). This limitation is due to the lack of representation of these groups in the ISSP sample, and also to the absence of appropriate variables to measure these dimensions.

CONCLUSION

In this work, I compared the religiosity of the Protestants affiliated with the Evangelical Lutheran Churches and

the religiously unaffiliated in the five Nordic countries (Denmark, Finland, Iceland, Norway, and Sweden) and analyzed the significance of several religiosity and background variables as predictors of disaffiliation based on data from the 2018 round of the ISSP Religion survey. The group comparisons were done using Chernoff faces plots and multiple comparisons tests based on a set of variables representative of several different aspects of religiosity. The analysis of disaffiliation was done using two logistic regression models, one without and another with the country as a control variable. The predictors used in the logistic regression models described the effects of confidence in churches, eventual changes of belief in God, perception about the relevance and timeliness of religion, the conditions of religious or nonreligious socialization, and several background and control variables (age group, sex, educational degree, type of living community, and country).

The group comparisons provided clear evidence that the differences between the Protestants affiliated with the Evangelical Lutheran Churches and the unaffiliated (those who declared 'No religion' as the answer to their religious group) are much larger than the differences between each of these two groups across the countries. The differences are striking on religious beliefs (in God, afterlife, etc.), involvement (frequencies of church attendance and praying, self-image as a religious person), confidence in churches (the 'judgmental side of belonging'), and the perceptions about the relevance and timeliness of religion, all of which are significantly lower among the unaffiliated. This result confirms and extends the findings of Lemos and Puga-Gonzalez (2021), and strongly suggests that even if the dimensions of religiosity decay at different rates, they are strongly intertwined. Thus, at least in the Nordic countries, disaffiliation really equates to detachment from religion.

The two logistic regression models computed in the present work showed that confidence in churches and religious organizations is a very powerful predictor of disaffiliation from the Evangelical Lutheran Churches: having no confidence at all increases the odds of disaffiliation more than fivefold, whereas having a great deal or total confidence reduces the odds to slightly less than one half, relative to having some confidence (the relatively neutral stance, chosen as the reference level). The second model also showed that the odds of disaffiliation are not the same for all countries. Norway, Sweden, and especially Finland, have significantly higher odds of disaffiliation than Denmark, with Iceland in-between. In addition, both models showed that relative to the age group 0–24 years, disaffiliation is significant among the Nordics aged 25 to 74. Thus, detachment from the Evangelical Lutheran Churches seems to occur for a wide age interval, and only the elder (75 years or older) seem to remain affiliated. The conditions of religious socialization during the formative period

(age 11–12) also influence the decision to disaffiliate. The odds of disaffiliation more than double if just one parent was not affiliated and are clearly higher for the respondents who never attended church services or did so less than yearly.

Is disaffiliation in the Nordic countries mainly due to mistrust in churches or loss of faith? The results of the present work suggest that the former motif is far more influential. Ceasing to believe in God increases the odds of disaffiliation, but by much less than having no confidence in churches. The perceptions about the relevance and timeliness of religion influence disaffiliation, but not as much as confidence in churches or the conditions of (un) religious socialization. The logistic regression models also showed that the odds of disaffiliation are higher among people living in big cities, and arguably lower for women than for men. Surprisingly, the results about the influence of the educational level on disaffiliation were inconclusive.

The results reported herein confirmed that confidence in churches, as a judgmental aspect of ‘belonging,’ is essential to studying religion in the Nordic countries, and confirm the viewpoint of some previous authors that mistrust in churches is more important to disaffiliation than disbelief. In addition, the present work once again showed the decisive influence of the intergenerational transmission of religion, as predicted by the CREs theory (conflicting examples from parents enhance later detachment from religion) and the importance of ritual participation during the formative period. Going to church just once or twice a year, perhaps on occasions like Christmas or Easter, is already a significant inhibitor of disaffiliation in the Nordic countries.

The present work suggested several interesting questions for further exploration. Which country-specific dynamics can explain the notable differences on the odds of disaffiliation between the five countries? It would also be interesting to examine and discuss possible alternative causal chains (with moderation, mediation, or both) leading to disaffiliation using path or structural equation models instead of the logistic regression models described herein. It would also be important to study the age at which the Nordics disaffiliate and their reasons for doing so using other data sets and a combination of quantitative and qualitative methods.

DATA ACCESSIBILITY STATEMENT

The data file used in the present work and the corresponding information files are available from GESIS – Leibniz Institut für Socialwissenschaften, <https://www.gesis.org/home/>. Access to the data requires the creation of an account and downloading the data, depending on the GESIS terms of use. I am registered as an academic user and have no special access privileges.

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COMPETING INTERESTS

The author has no competing interests to declare.

AUTHOR CONTRIBUTIONS

C.M.L. formulated the ideas and research questions, designed the methodology, analyzed and prepared the data, created the figures and tables, and wrote the manuscript.

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