

# Catholic Commitment Around the Globe: A 52-Country Analysis

BRIAN CONWAY   
Department of Sociology  
Maynooth University

BRAM SPRUYT  
Sociology Department  
Vrije Universiteit Brussel

*This article investigates variation in Catholic religious commitment in different macro world regions. Although sociologists have examined variation in Catholic religiosity, this research has tended to be limited to Western European and Latin American contexts and has not gone beyond employing more than one measure of religiosity. In addition, prior research has rarely examined the effect of several explanatory frameworks together. Drawing on data from the European and World Values Survey as well as national-level data, we test for the influence of secularization/existential security, religious markets, and historical legacies on self-rated importance of God, private prayer, and church attendance across 52 countries in five world macro-regional contexts—Africa, Asia, Europe, Latin America, and Oceania—of the church. Our findings provide strong support for the existential security perspective and partial support for the historical legacy perspectives. We conclude with implications for the study of religion and society in general.*

**Keywords:** *Catholicism, religious commitment, world regions, survey research.*

## INTRODUCTION

The study of cross-national variation in religiosity represents an important and well-studied area of research in the sociology of religion (Fox 2008; Kellye and De Graaf 1997; Need and Evans 2001; Ruiter and van Tubergen 2009; van Tubergen 2006). This body of literature has primarily examined the impact of secularization and religious markets on religiosity, each theoretical perspective making quite different predictions—with mixed results—about this variance. In general, this literature tells us that looking across the world, societies with high levels of economic modernization tend to be less religious compared to societies with lower levels of modernization. We also know that empirical studies have not completely spared the religious markets model—whose basic claim is that the degree of competition in the local religious environment is an important determinant of variance in commitment—from refutation.

At the same time, the historical legacies of particular societies or world regions—such as past experiences of communism, scandal, and colonialism—preclude any simple or straightforward analysis of the impact of modernization or competition on religiosity. Increasingly, students of religion recognize the need to take history, culture, and world region more seriously in understanding empirical cross-national variation in religiosity and to ask under what conditions

*Acknowledgments:* The authors would like to acknowledge and thank the anonymous reviewers and editor for their thoughtful comments on an earlier version of this article as well as anonymous reviewers for *Sociology of Religion* whose feedback and suggestions helped to improve our article. We appreciate comments we received in presentations we gave at the University of Helsinki, Loyola Institute (Dublin), Department of Sociology of Maynooth University, the British Sociological Association Sociology of Religion Study Group Annual Conference (Hoddesdon), and the Catholic University of Louvain. We also wish to acknowledge financial support from the Research Enhancement Fund, Maynooth University.

*Correspondence should be addressed to Brian Conway, Department of Sociology, Maynooth University, Maynooth, Co. Kildare, Ireland. E-mail: brian.conway@mu.ie*

the secularization and religious market perspectives might (or might not) apply (Fox 2008; Greeley 2003; Martin 2005; Norris and Inglehart 2004).

This article examines the impact of these explanations on different elements of religiosity in the Catholic world. More specifically, the article examines why some Catholic countries tend to exhibit higher levels of religiosity than other Catholic countries, an important, though insufficiently understood, finding in the literature (Driessen 2014a; Greeley 2003; Need and Evans 2001; Smith and Sawkins 2003). To better understand this Catholic variation, we take a twofold approach by: (1) examining empirical variation in three indicators of Catholic religiosity in different world regions, relying on a greater number of countries than previous studies, and (2) comparing the relative explanatory power of different theoretical perspectives in explaining this variation. More specifically, we argue that the existential security and historical legacies perspectives receive the most empirical support in understanding cross-national variation in global Catholicism.

### REVIEW OF PREVIOUS RESEARCH

Prior studies offer varying explanations for the relative vitality of Catholic religiosity. In their work, Stark and Finke (2000) devote considerable attention to this topic. Looking around the Catholic world, they find that this tradition is strongest where it is numerically in a minority, in line with the predictions of the religious market approach. And Stark and Finke's consideration of a variety of indicators of Catholic vitality—new callings to male and female clergy and religious, priest-laity ratios, and church attendance—adds to the persuasiveness of their theory. However, when confronted with cases such as Ireland and Poland, an exception to the general negative correlation between market share and religious commitment, this perspective runs into trouble. While acknowledging this challenge to their theory, they argue that the vitality of such Catholic-majority contexts can be explained by the historic influence of the church in expressing nationalist sentiment (Stark and Finke 2000).

Diotallevi also applies religious market theories to Catholic countries, based on the notion of internal subnational competition within religious monopolies such as Italy. He argues that the presence of competition-inducing plurality within the church itself, as reflected in its various religious orders and congregations competing with local diocesan clergy for the attention of new callings, the rivalry between different lay associations and organizations, or in the opposing draw of parishes and lay ecclesial movements, creates a diverse religious marketplace responsive to the needs of adherents (Diotallevi 2002). A limitation of this perspective is that few direct tests of it have been carried out on a cross-national basis, with most studies, including Diotallevi's work, relying on one single overarching case.

Similarly, Anthony Gill (1998) applies religious market theories to Catholic countries—in this case, Latin America—to explain variation in the church's response to authoritarian rule, especially in the 1960s and 1970s. Here Gill places greatest stress on the degree of competition facing the Catholic Church as the key determinant of its strategic actions, especially at the national episcopal conference level. Of course, other factors such as liberation theology, the 1968 Medellín meeting, and Vatican II (1962-1965) could be mentioned as influential in creating a more socially engaged church, but these do not explain the variance in prophetic leadership between different national churches in this region. Instead, in contexts such as Chile where the church faced strong competition in fulfilling adherents' spiritual and material needs and tastes from its versatile Protestant counterparts (especially Pentecostals and evangelicals), it took a strong position against authoritarian rule, compared to settings where it did not experience competing religious groups. Along the way, the church increasingly sided with the poor and marginalized, especially in places such as Brazil and Chile, thus gaining in legitimacy among these disadvantaged sectors and helping to increase their commitments to it.

While Gill's analysis helps inform our understanding of church-state interactions in Catholic-majority societies in a specific world region, it has not been widely tested outside the Latin American context or in settings where the Catholic market share is relatively low. In addition, this perspective has mainly been applied to understanding Catholic religious leaders' actions, but not the beliefs and practices of ordinary Catholic adherents (Morello 2015).

Other scholars—including Smith and Sawkins (2003), Driessen (2014a), and Need and Evans (2001)—have also turned their attention to variation in Catholic religiosity. Smith and Sawkins argue that higher levels of religiosity among Catholics compared to their Protestant counterparts can be accounted for—as others have argued—by the church's internal diversity, including its plurality of worship styles ranging from youth-oriented folk liturgies to emotion-laden Charismatic gatherings. But they also posit that the relative success of the Catholic tradition in socializing the next generation of adherents also owes something to the effects of Catholic schooling, where regular day-to-day contact with church personnel bolsters devotees' faith commitments.

For Driessen (2014a), some Catholic countries such as Italy tend to have higher levels of religiosity than other Catholic countries such as France due to the twin considerations of strong governmental support for the church, on the one hand, and weak state regulation of its institutions on the other. Thus, the church enjoyed the advantages of being an established church but without its associated costs (Coleman 1978). These conditions allowed the church to forge a strong connection between the church and the general populace and to stimulate national religiosity, compared to settings like France where the church did not enjoy this favorable situation (Driessen 2014a). But we know little about whether this theory holds beyond the Catholic-majority, Europe-heavy societies that are the focus of Driessen's analysis.

In their study of variation in religious commitment in postcommunist societies, Need and Evans (2001) also find support for higher Catholic commitment compared to Orthodox religiosity. They explain the higher average level of religiosity found in Catholic countries compared to their Orthodox counterparts by the particular church-state interactions exhibited in former communist societies, where the Catholic Church was a strong conduit for anti-communist expression and rallying point for resistance to external domination, a situation that did not apply to the Orthodox Church in Orthodox countries (Martin 1978; Need and Evans 2001).

Thus, this comparative Catholic studies literature does find that Catholic countries tend to have higher levels of religiosity than their Protestant and Orthodox counterparts and that there are differences among Catholic societies and, thus, that this religious tradition should not be treated as a unified entity (Turner 1971). However, as this overview also demonstrates, existing analyses tend to be limited to either a single national setting or a quite restricted range of world regional contexts, lack empirical tests of a range of theories of religiosity together, and tend to look at just one or two dimensions of religious commitment. In addition, we know little about the relative influence of individual- and country-level contextual variables on Catholic commitment.

This article is organized as follows. First, we present and discuss the theories guiding the analysis. Second, we outline the data and methods employed. Third, we present and discuss the findings relating to cross-national variation in religious commitment. This is followed by the conclusion section, where we discuss the implications for religion and society in general, the limitations of the present study, and directions for future research.

### THEORETICAL FRAMEWORK

Researchers studying religious commitment in general—as well as Catholicism specifically—have regularly found substantial regional variation in different beliefs and religious practices. In this section we briefly introduce the different theories that have been proposed to explain this variation and formulate hypotheses that will be tested in the empirical part of the article.

## Secularization Theory

The basic insight of secularization theory is that as societies modernize, they become less religious (Kelley and De Graaf 1997; Ruiter and van Tubergen 2009; Swatos and Olson 2000). In this account, modernization is usually understood to take different forms, ranging from the modernization of ideologies linked to the spread of rational ideas associated with education and scientific knowledge, the “modernization of economies” linked to the increasing ability of people to secure their basic survival needs, and the “modernization of social ties” linked to the transition from close-knit rural settings to distant urban communities where social conformity to religious norms is eroded amidst weaker and more diffuse ties to others (Ruiter and van Tubergen 2009:865). In addition, in urban contexts devotees are likely to be exposed to alternative lifestyles and outlooks (Stolz et al. 2016), and thus are less likely to be influenced by religious-based understandings. Thus, secularization theory posits that by weakening the power of religious worldviews, modernization dampens individual religiosity (Buckley and Mantilla 2013). This sets the stage for Hypothesis 1a:

H1a: According to the secularization perspective, Catholic adherents living in societies characterized by high levels of modernization will exhibit lower levels of religious commitment.

Building upon secularization theory, Norris and Inglehart’s “existential security” perspective argues that cross-national variation in religious belief and practice—as reflected in differences in religiosity between developing and Western settings—may be related to variation in levels of human security—the ability of people to secure their basic needs for food, shelter, and services and protect themselves against various forms of existential risk—as between poor and rich countries. As people’s levels of education and income—and material security generally—increase, they tend to rely less and less on religion as a source of meaning. Of course, there are exceptions to the existential security perspective and the risks faced by many ordinary people in relation to such things as employment and healthcare within certain societies can explain why countries such as the United States are first-world outliers in religiosity.

But it is also the case that the impact of human security on religiosity is likely shaped by political or state capacity within a given society. More specifically, states have the capacity (or not) to secure people’s basic survival and human developmental needs. Resource-rich states are better positioned to realize this, but state capacity or lack thereof—as in parts of Africa where political corruption in bureaucracy is common—may hinder their ability to deliver needed services. This can create cross-national variation in security, even among contexts with basically similar levels of economic modernization (Buckley and Mantilla 2013; Norris and Inglehart 2004). This sets the stage for Hypothesis 1b:

H1b: According to the existential security perspective, Catholic adherents living in societies characterized by low levels of human security will exhibit higher levels of religious commitment.

## Religious Market Theory

Secularization theory has come under criticism for its inability to account for high levels of religiosity in some highly modernized societies (Hamberg 2015; Ruiter and van Tubergen 2009). Religious market theory helps explain this situation—the United States being the exemplar case of this perspective—by focusing on the degree of competition in the local religious landscape. Also known as a supply-side explanation, this perspective applies economics-based thinking and discourse to culture by viewing religion as a kind of “product” with more or less appeal

to “consumers,” depending on the degree of regulation in the “market” of religious “firms” competing with one another (Fox 2008; Stark and McCann 1993). Thus, this theory distinguishes between the effects of regulation and competition (Chaves and Cann 1992).

According to this model, the absence of regulation—which finds practical expression in church-state separation—provides a favorable context for new religious groups to operate and compete more intensely, thus inspiring them to work harder to attract new members and retain existing adherents (Minarik 2014; Hamberg 2015; Stark 1992), creating a more diverse product tailored to variegated individual needs. Where there is just one religious body in a monopoly position and little or no space for other groups to enter the market, religiosity tends to be dampened as there is little competition for followers and reduced incentive for church leaders to work hard, especially in contexts where obligatory taxes support the financing of a state church, which, in turn, can produce a “lazy” product syndrome (Fox 2008; Smith and Sawkins 2003).

However, more recent work suggests that state regulation of religiosity is not all-of-a-piece and may vary quite substantially across different types of church-state arrangements. Thus, it is important to take account of different relationships between religious elites and the laity in different contexts (Driessen 2014a; Fox 2008). It is also the case that this theory does not travel well to Catholic-majority societies, where Catholicism is in a strong position despite holding a monopoly status. This is why it makes sense—as religious market theorists acknowledge—to consider the internal pluralism within Catholic-majority societies (Diotallevi 2002; Driessen 2014a). This notion suggests that subnational competition helps explain the Catholic majority effect, competition that may be bolstered by the support of Catholic authorities in Rome or in the local church (Diotallevi 2002). This sets the stage for Hypotheses 2a, 2b, and 2c:

- H2a: According to the religious market perspective, Catholic adherents living in societies characterized by high levels of state regulation of religiosity will exhibit lower levels of religious commitment.
- H2b: According to the religious market perspective, Catholic adherents living in societies characterized by high levels of interdenominational competition will exhibit higher levels of religious commitment.
- H2c: According to the religious market perspective, Catholic adherents living in societies characterized by high levels of intradenominational pluralism will exhibit higher levels of religious commitment.

### **Historical Legacies Theory**

An additional factor that may be consequential for explaining cross-national variation in religiosity is the role of historical legacies. These may be usefully understood as falling into four categories. First, past research suggests that the historic role of the church as a repository of national identity and awareness helps to explain why some countries exhibit higher average levels of religiosity than others. In this context, church attendance and other forms of religiosity may express the close association between church and state and help solidify a connection between the church and the society and bolster national religious commitment, while at the same time restricting the establishment of alternative meaning systems (Barro and McCleary 2005; Chaves and Cann 1992; Driessen 2014a; Grzymała-Busse 2015). Such a church as nationalism arrangement is more likely to exist in a society with one dominant single religion (Chaves and Cann 1992; Martin 1978). In some cases—such as communist-era Poland—poor church-state interactions did not preclude the establishment of strong church ties to the society (Froese 2004; Grzymała-Busse 2015), which strengthened religious commitment.

Second, we also know that other historical legacies such as past experiences of scandal and pedophilia may impact negatively on the church’s societal legitimacy and ordinary people’s evaluations of its performance and moral authority. In the Catholic case, the church experienced

a prolonged period of scandal, beginning roughly in the mid-1980s and continuing up to the present. This arose as a result of the disclosure of clerical child sex abuse scandals, involving clergy and religious personnel who sexually abused children as well as the religious leadership response to these abuses, mainly by a critical mass media (Conway 2014; Dillon 2006; Keenan 2012).

Another significant historical legacy with a dampening impact on Catholic religiosity is communism. Although this secular ideology did not have a uniform impact on Catholic belief and practice in all societies and was considerably weaker in its influence in such countries as Lithuania and Poland (Froese 2004; Martin 1978; Need and Evans 2001), in general it was associated with a lengthy period of “assertive secularism” (Kuru 2007:568) or “forced secularization” (Froese 2004:72), which dampened religious belief and practice in former communist countries (Chaves and Cann 1992; Need and Evans 2003; Pollack 2003). This religious repression took various forms ranging from the closure of church buildings, the introduction of secular holidays and symbolic rituals, and restrictions on Catholic voluntary social services such as education through to physical violence against clergy (Froese 2004; Greeley 2003; Martin 1978). At the same time, communism represented a competitor to religious bodies and the postcommunist period sometimes resulted in the founding of monopoly churches (Froese 2004). In addition, after communism, religious commitment enjoyed a revival in Central and Eastern Europe, following the church’s historic role as a vehicle for anti-communist opposition (Greeley 2003; Minarik 2014).

A fourth historical legacy factor that could potentially influence religious commitment is a history of colonialism. While the literature acknowledges that a heritage of colonial rule can be associated with various forms of state repression of religion (Ter Haar 2009), colonial enterprises—especially in Catholic communities in Africa—have also often involved the establishment of new religious systems and associated social services—such as schools and hospitals—among native populations, helping to bolster local Catholic identity in the process (Kollman 2012; Linden 2009). This paves the way for Hypotheses 3a, 3b, 3c, and 3d:

- H3a: According to the historical legacies perspective, Catholic adherents living in societies characterized by historic close Catholic church-state interactions will exhibit higher levels of religious commitment.
- H3b: According to the historical legacies perspective, Catholic adherents living in societies characterized by past experience of scandal/pedophilia will exhibit lower levels of religious commitment.
- H3c: According to the historical legacies perspective, Catholic adherents living in societies characterized by past experiences of communism will exhibit lower levels of religious commitment.
- H3d: According to the historical legacies perspective, Catholic adherents living in societies characterized by past experiences of colonialism will exhibit higher levels of religious commitment.

## METHODS

### Data and Measures

In this study we use individual-level data as well as country-level information. The individual-level data come from the most recent waves of the European Values Survey (EVS; wave 4, fieldwork 2008–2010) and the World Values Survey (WVS; wave 6, fieldwork 2010–2014). The EVS is an ongoing large-scale social survey data collection effort involving European societies. It was first conducted in 1981 and was subsequently carried out in 1990, 1999, and 2008. In each wave, data were collected about a broad range of human values relating to different domains, including

religion, as well as sociodemographic information such as age, gender, and education. Similarly, the WVS (which in effect is an offshoot of the EVS) is another large-scale, cross-national survey of values and was first conducted in 1990. Later waves took place in 1995–1997, 2005–2008, and 2010–2014. In each context data are based on nationally representative samples obtained through face-to-face surveys in the local language.

By pooling the data from these two surveys, we get a unique data set covering 52 countries. In this article we focus on all EVS/WVS countries with some (at least 20) Catholic respondents and for which all relevant country-level information was available. For reasons explained earlier, we also explicitly aimed to include non-European countries. With these criteria in mind, we ranked all 52 countries according to the proportion of self-identified Catholics. Three of them (Poland, Slovenia, and Spain) participated both in the EVS and WVS. For these countries we used the most recent data (WVS). Since Northern Ireland is (1) not a country but a region that (2) has also a very unique religious-political history, we excluded it from the analyses.

This sample includes large countries with a Catholic majority (and traditional heartlands of the church) such as Poland, smaller settings such as Belgium where Catholicism has a weaker numerical majority, countries with a Protestant majority but with a large Catholic minority such as Germany, and countries with a relatively low Catholic market share such as Belarus (where the church operates in a missionary zone and is less rooted in the local society). We confined the analyses to self-identified Catholics in each country, leaving us, after deleting cases that had missing values for one of the variables, with a final sample of 26,750 respondents. See the tables for a full listing of the 52 countries, along with their national-level measures.

Although the 52 societies are all countries with a Catholic market share, they vary in their degree of religious diversity. More specifically, the proportion of self-identified Catholics in the selected countries varies from 1.8 percent (Sweden) to 95.8 percent (Malta). In addition, these societies reflect considerable variation in their levels of religious commitment—such as weekly church attendance—in general (see Table 1).

A final point worth noting is that we chose not to include 2008 ISSP (International Social Survey Programme) data because a self-rated importance of God question is not available in this survey and the EVS/WVS includes a much larger number of countries.

## Independent Variables

The country-level data for this study come from a number of sources.

Our measure of secularization comes from two sources. First, we used the U.N. Human Development Index (HDI),<sup>1</sup> a measure of aggregate human development in different countries capturing classic modernization theory indicators such as education, standard of living, and health. This value ranges from 0 to 1, with higher values indicating higher levels of human development. We used the HDI levels from 2010. Although in some cases it might be interesting to study the effects of each of the constituting indicators separately (see Ruiter and van Tubergen 2009), our aim in this article is to compare the explanatory power of different mechanisms. Thus, we are not so much interested in which aspect of human development predicts religious beliefs and practices as we are in assessing whether there are other factors besides general development that predict religious beliefs and practices. To the extent that human development might not be simply the sum of different indicators but rather a property of the combination of different characteristics, using a composite indicator better fits our objective. A second measure of secularization used in this study—as well as in other studies (Ruiter and van Tubergen 2009)—is urbanization, which

<sup>1</sup>These data are available at <http://hdr.undp.org/en/composite/trends> (accessed 20 November, 2017).

Table 1: Descriptive statistics of all variables included in the analysis

<b>Individual-level characteristics (<math>N^a = 26,750</math>)</b>		<i>n</i>	<i>%</i>		
Gender: male		12,306	46.0		
Female		14,444	54.0		
Age: 15–24		3,558	13.3		
25–34		5,208	19.5		
35–44		4,976	18.6		
45–54		4,512	16.9		
55–65		3,814	14.3		
65 or older		4,681	17.5		
<i>Mean</i>		45.6			
<i>SD</i>		17.9			
Number of children: 0		7,310	27.3		
1		4,607	17.2		
2		7,688	28.7		
3		4,032	15.1		
4		1,594	6.0		
5		708	2.6		
6		371	1.4		
7		180	.7		
8 or more		261	1.0		
Marital status: not married or registered partnership		10,993	41.1		
Married or registered partnership		15,757	58.9		
Educational attainment: secondary education not completed		9,483	35.5		
Secondary education completed		11,677	43.7		
Tertiary education		5,590	20.9		
Employment status: <sup>b</sup> full time		9,614	35.9		
Part time		1,757	6.6		
Self-employed		2,596	9.7		
Retired		4,990	18.7		
Housewife		2,911	10.9		
Student		1,568	5.9		
Unemployed		2,122	7.9		
Other		495	1.9		
Argentina		697	2.6		
<b>Country-level characteristics (<math>N = 52</math>)</b>		<i>Mean</i>	<i>SD</i>	<i>Min</i>	<i>Max</i>
Human Development Index		.8	.1	.1	.9
Urbanization Index		69.3	18.1	13.9	100.0
Fragile States Index		53.1	23.2	18.7	110.2
Colonialism		.6	.5	.0	1.0
Communism		.3	.5	.0	1.0
Religious Diversity Index		3.8	2.0	.1	1.0
Ratio diocesan priests/religious priests		.6	.4	.2	1.8
Share of Catholics		.4	.3	.0	1.0
Catholic state religion		.3	.6	.0	1.0
Scandal		.5	.5	.0	1.0
Alesina et al.'s Religious Diversity Index		.5	.2	.0	.9

(continued)



Table 1: (Continued)

Country-level characteristics (N = 52)	Mean	SD	Min	Max
Share of Catholics in the 1970s	50.1	37.7	.2	1.0
Government Restrictions Index	2.3	1.5	.3	6.8

Source: EVS (wave 4) and WVS (wave 6) pooled data set, data weighted by S017.

<sup>a</sup>Number of Catholic respondents who had a valid answer on all independent and dependent variables in the analysis.

<sup>b</sup>Question not asked in Argentina. We include this country as a separate category in the analysis.

comes from World Bank data measuring the proportion of the general populace living in urban areas in 2010 (as defined by the national statistics office in the country).<sup>2</sup> The study's measure of existential security is the Fragile States Index<sup>3</sup> for 2010. This is a measure of the state's ability to meet basic needs in a given society, such as provide security, raise taxes, furnish services, etc. It is based on 12 social, political, and economic indicators in 177 societies and values on the index can range from 0 to 120, with lower values indicating less state capacity.

Second, for measures of religious market theory we relied on the Government Restrictions Index scores for each country for 2010 (Hypothesis 2a) derived from Pew research,<sup>4</sup> with higher values (on a 0–10 scale) indicating higher levels of state regulation or restriction. Third, we used present Catholic market share based on the EVS/WVS data and historic Catholic market share based on the percentage of Catholic adherents in each society in 1970 (Hypotheses 2b and 2c), as reported in the *World Christian Encyclopedia* (Barrett, Kurian, and Johnson 2001). Fourth, we relied on Alesina et al.'s measure of religious fractionalization, a well-known indicator of religious diversity (values ranging from 0 to 1, with higher values indicating higher levels of heterogeneity) in a given society (Alesina et al. 2003). Fifth, we used Pew's Religious Diversity Index (for 2010),<sup>5</sup> with higher values (on a 0–10 scale) indicating higher levels of diversity.

Following Diotallevi (2002), the study's measure of internal competition (Hypothesis 2b) is the ratio of diocesan priests to religious priests in each country. This measure was obtained from the 2008 volume of the *Annuario Statisticum Ecclesiae* (ASE), an annual collation of statistics published by the Vatican relating to the workforce, units, and sacraments of the global church, including the number of diocesan and religious order clergy in each national church. Additionally, we relied on the ratio of parishes to lay missionaries as a measure of the opposing draw of the basic organizing unit of the church and lay ecclesial movements, also obtained from the ASE in 2008. However, due to missing data (in 19 cases), we were not able to include this measure in the analyses.

Our historical legacy measures come from three sources. First, for our measure of religio-political fusion or church-state interactions (Hypothesis 3a), we used Barro and McCleary's global state religion data set (Barro and McCleary 2005). We created a dummy variable for Catholic state religion (coded 1 if country had Catholicism as state religion in one (or more) of the years 1900, 1970, or 2000, 0 otherwise). Thus, this measure of Catholic state religion is sensitive to what happened historically in each country with regard to Catholic church-state cooperation (Barro and McCleary 2005).

<sup>2</sup>These data are available at <https://data.worldbank.org/indicator/SP.URB.TOTL.IN.ZS?page=4> (accessed 20 November, 2017).

<sup>3</sup>These data are available at <http://fundforpeace.org/fsi/data/> (accessed 20 November, 2017). Note that these data were formerly known as the Failed States Index.

<sup>4</sup>These data are available at <http://www.pewforum.org/files/2012/09/RisingTideofRestrictions-fullreport.pdf> (accessed 20 November 2017).

<sup>5</sup>These data are available at <http://www.pewforum.org/2014/04/04/religious-diversity-index-scores-by-country/> (accessed 20 November 2017).

Second, we created a dummy variable for recent experiences of scandal/pedophilia (coded 1 if country experienced recent scandal, 0 otherwise) (Hypothesis 3b). This measure is based on Keenan's analysis of the international prevalence of Catholic child sex abuse (Keenan 2012). Third, a dummy variable indicating past history of communism (coded 1 if country had communist past, 0 otherwise) comes from Fox's (2008) categorization of world regions (Hypothesis 3c). Fourth, a dummy variable for colonialism (coded 1 if country attained independence in the 20th century, 0 otherwise) is derived from the ICOW Colonial History data set (Hensel 2014)<sup>6</sup> (Hypothesis 3d).

### DEPENDENT VARIABLES

Recognizing the multiple expressions of religious commitment (Stark and Glock 1968; Voas 2007), in this study we focused on three dependent variables. First, in each wave of the EVS/WVS we use a church attendance variable. This comes from a question asking respondents the following: "Apart from weddings, funerals, and baptisms, how often do you attend religious services?" This variable has eight categories: more than once a week, once a week, once a month, only on specific holy days, once a year, less often, never, practically never.

Second, we use a prayer variable based on a question asking respondents about their frequency of praying. In the WVS, this variable has eight categories: several times a day, once a day, several times each week, only when attending religious services, only on special holy days, once a year, less often, never, practically never. In the EVS respondents were asked how much they prayed outside of religious services. This variable has seven categories: every day, more than once a week, once a week, at least once a month, several times a year, less often, never. To create a consistent measure across surveys, we created a new variable with five categories (never, less often, at least once a year, at least once a week, at least once a day) with respondents from the WVS sample who indicated "only when attending religious services" collapsed into the less often category.<sup>7</sup>

Third, self-rated importance of God—a general Christian notion rather than a uniquely Catholic one—is based on a question asking respondents about the level of importance they attach to God with importance being assessed on a 10-point scale, where higher values represent greater importance.

Together, these three variables constitute the three dependent variables in the study. In order to facilitate comparison between the different religious practices and beliefs, we rescaled all dependent variables to a 0–10 continuum. While preparing this article we also reestimated the models using both a poisson regression analysis (for ordinal data) and logistic regression analysis (for a dichotomy). As these additional analyses did not alter our substantive conclusions, we report here the more easily interpretable results of the analyses on the continuous scales.

### Control Variables

Because a number of other factors could potentially influence individual religiosity, we controlled for several standard sociodemographic variables, including age, level of education, employment status, marital status, having children, and gender (see Table 1). To test for the existence of a possible curvilinear effect, we also included age-squared. Information about the

<sup>6</sup>These data are available at <http://www.paulhensel.org/icowcol.html>, accessed November 20, 2017.

<sup>7</sup>Respondents who only pray during religious services had to answer the EVS question with "less often" or "never." When preparing this article we reestimated the models based on different operationalizations of the prayer variable. This did not alter our substantial conclusions.

employment status was not available for Argentina. As all our hypotheses refer to country-level differences, we included a separate dummy for Argentina for the employment status variable. This allowed us to keep this country in the analysis.

### Analytical Approach

The analysis proceeds in two steps. First, we present some basic descriptive and preliminary information about levels of religious involvement in each locale/world region. Second, we present the multilevel models evaluating the relative importance of the theoretical explanations of Catholic religious commitment across the various settings.

Table 1 presents the summary statistics for the study's independent variables.

## FINDINGS

### Descriptive Findings

We begin by presenting our findings in relation to cross-national variation in the three measures of religious identity: self-rated importance of God, private prayer, and church attendance (Table 2). Interestingly, the country-level variation is quite considerable with *eta*<sup>2</sup> ranging from 25.9 percent (subjective importance of God) to 19.5 percent (church attendance).

We also found some interesting within-macro-region differences. For example, in Europe the mean value for self-rated importance of God varies from 5.25 (France) to 9.02 (Malta), for prayer varies from 3.04 (Spain) to 8.47 (Malta), and for church attendance varies from 2.81 (Spain) to 8.50 (Malta). Turning to the Latin American region, the mean value for self-rated importance of God is highest in Colombia (9.71) and lowest in Uruguay (7.63). The mean value for prayer also varies within this region, from a high of 8.90 in Colombia to a low of 5.81 in Argentina. With regard to church attendance, this macro region also exhibits notable variation, with a high of 5.78 in Ecuador and a low of 2.93 in Uruguay. Interestingly, for all three outcomes the range of the between-country variation in Europe is larger when compared to Latin America.

Another notable finding relates to between-macro-region differences.<sup>8</sup> We found that the mean for self-rated importance of God is highest in Latin America (8.93) and lowest in Europe (6.96), with Africa (8.65), the United States (8.40), and Asia (8.00) occupying a middle-ground position. The mean for prayer is highest in Africa (8.63), considerably lower in Europe (6.04), and lowest in Australia and New Zealand (5.16). By contrast, the Latin American and Asian regions have a mean of 7.55 and 7.89 on this measure. Variation between macro regions is also evident with respect to church attendance—the mean for this measure is highest in Africa (6.97), much lower in Europe (4.48) and Latin America (4.80), and lowest in Australia and New Zealand (3.57). Mean church attendance levels in Asia were 6.20.

Based on these world regional differences one could ask what it is about African societies that bolsters Catholic commitment—especially among converts to the faith (Ziegler 2011)—in comparison to European or Latin American contexts? In some African societies, the church is increasing in size not just as a result of growth from rising birth rates but also from conversions. Perhaps the church's involvement in schooling—a key focus of its apostolate in Africa (Calderisi 2013)—and other social service provision accounts for much of this vitality, especially in light of the state's relatively weak capacity in these areas. It may also be that religiosity is strengthened by the innovative mixing of localized belief systems—which place a strong emphasis on direct

<sup>8</sup>The *eta*<sup>2</sup> coefficient reflects the proportion of variation in the dependent variables that is explained by country variation.

Table 2: Country-level differences in religious commitment among Catholics

Country (year of data collection)	Self-identified Catholics			Importance of God in your life (0–10)			Prayer (0–10)			Church attendance (0–10)		
	%	<i>n</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
<b>Europe</b>												
Albania (2008)	8.5	131	8.13	1.92	7.72	2.60	4.51	2.64				
Austria (2008)	72.7	1,097	5.82	3.06	5.16	3.27	3.88	2.61				
Belgium (2009)	51.4	774	5.60	2.80	4.91	3.53	3.35	2.63				
Croatia (2008)	79.1	1,185	7.55	2.58	6.86	3.18	4.74	2.40				
Czech Republic (2008)	24.0	430	6.87	2.84	5.94	3.44	4.34	2.53				
Estonia (2011)	2.0	31	6.06	2.85	3.19	3.87	4.22	2.23				
France (2008)	42.5	638	5.25	3.06	4.09	3.61	2.72	2.61				
Germany (2013)	26.6	545	6.45	3.01	5.35	2.83	3.92	2.54				
Hungary (2008)	40.7	616	6.72	2.91	5.61	3.45	3.46	2.54				
Ireland (2008)	80.3	789	7.14	2.65	7.24	3.12	5.19	2.60				
Italy (2009)	79.1	1,201	8.00	2.18	7.51	2.97	5.59	2.08				
Latvia (2008)	19.5	293	6.46	2.96	6.10	3.44	3.88	2.19				
Lithuania (2008)	78.5	1,177	6.61	2.56	5.05	3.27	4.44	1.86				
Luxembourg (2008)	65.5	1,054	5.29	3.35	4.54	3.63	3.52	2.67				
Malta (2008)	95.8	1,434	9.02	1.78	8.50	2.32	6.63	2.30				
Netherlands (2012)	17.6	334	6.15	2.47	5.48	4.18	3.76	2.34				
Norway (2008)	2.1	23	5.50	3.56	5.47	4.37	4.00	2.57				
Montenegro (2008)	3.1	48	7.31	3.12	6.87	2.42	4.90	2.38				
Poland (2012)	92.3	892	8.14	2.37	7.18	3.83	5.95	1.89				
Portugal (2008)	75.9	1,179	6.69	2.60	5.66	3.35	4.09	2.61				

(Continued)

Table 2 (Continued)

Country (year of data collection)	Self-identified Catholics			Importance of God in your life (0–10)		Prayer (0–10)		Church attendance (0–10)	
	%	<i>n</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
Romania (2012)	3.3	49	8.58	2.36	7.56	3.34	5.19	2.77	
Serbia (2008)	5.3	80	6.75	3.19	5.86	3.48	3.91	2.40	
Slovak Republic (2008)	67.8	1,023	7.62	2.57	7.15	3.18	5.33	2.54	
Slovenia (2011)	65.0	695	5.38	2.92	4.02	3.93	4.17	2.36	
Spain (2011)	72.3	860	5.29	3.11	2.81	3.16	2.63	2.91	
Sweden (2009)	1.8	21	8.45	3.27	7.37	3.31	5.01	2.34	
Switzerland (2008)	31.8	405	6.78	2.79	6.10	3.39	3.70	2.46	
Ukraine (2011)	6.2	94	8.60	1.99	7.46	3.94	5.57	1.84	
Great Britain (2009)	10.6	165	6.49	3.14	5.57	3.71	3.67	2.90	
Bosnia Herzegovina (2008)	11.4	172	8.74	1.73	8.10	2.38	6.30	1.77	
Belarus (2011)	10.5	161	7.67	2.64	5.05	4.29	4.82	2.36	
<b>Latin America</b>									
Argentina (2013)	69.6	717	7.67	2.04	5.81	4.08	3.60	2.71	
Brazil (2014)	52.8	785	9.48	1.62	8.48	3.01	5.32	2.53	
Chile (2011)	63.8	638	8.63	1.73	6.32	3.82	4.42	2.65	
Colombia (2012)	61.3	927	9.71	.98	8.90	2.65	5.54	2.58	
Ecuador (2013)	62.6	753	9.25	1.70	8.31	3.09	5.78	2.04	
Mexico (2012)	69.6	1,391	9.54	1.32	7.80	3.53	5.60	2.34	
Peru (2012)	73.4	888	8.94	1.69	6.64	3.95	4.79	2.77	
Uruguay (2011)	23.7	237	7.63	2.49	5.98	4.14	2.93	2.86	
Trinidad and Tobago (2011)	19.9	199	9.55	1.46	9.68	1.23	5.21	2.58	

(Continued)

Table 2 (Continued)

Country (year of data collection)	Self-identified Catholics		Importance of God in your life (0–10)		Prayer (0–10)		Church attendance (0–10)	
	%	<i>n</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
<b>Asia</b>								
South Korea (2010)	15.7	188	6.03	3.21	6.91	3.47	5.81	2.76
Lebanon (2013)	21.8	261	8.16	2.45	7.76	3.53	5.99	2.00
Philippines (2012)	69.0	828	9.43	1.65	9.32	2.00	6.29	1.87
Singapore (2012)	6.1	120	7.82	2.40	7.49	3.65	6.34	2.31
<b>Africa</b>								
Ghana (2012)	13.5	209	9.71	1.09	9.14	2.27	7.14	1.81
Nigeria (2011)	19.1	336	9.04	1.55	9.34	1.89	7.65	1.58
Rwanda (2012)	55.7	851	7.51	2.73	8.00	3.15	6.56	2.30
South Africa (2013)	14.6	516	7.42	2.38	8.33	2.95	6.34	1.94
Zimbabwe (2012)	21.4	320	9.54	1.14	8.42	3.10	7.22	1.58
<b>Other</b>								
New Zealand (2011)	12.7	107	6.94	3.19	5.49	4.03	3.27	2.92
Australia (2012)	22.5	333	6.59	3.24	4.13	3.94	3.50	2.50
United States (2011)	21.5	480	8.40	2.24	7.37	3.56	4.72	2.78
Total <i>N</i>	37.3	28,680	7.59	2.80	6.67	3.67	4.87	2.69
Valid <i>N</i>			26,750		26,750		26,750	
<i>Eta</i> <sup>2</sup>			.259		.199		.195	
<i>p</i>			.000		.000		.000	

Source: Pooled data EVS (wave 4) and WVSS (wave 6), data weighted by S017.

Table 3: Bivariate Pearson correlation between aggregate measures of religious commitment among Catholics in 52 countries

Importance of God <sup>a</sup>	1.000	
Private prayer <sup>a</sup>	.864 <sup>***</sup>	1.000
Church attendance <sup>a</sup>	.722 <sup>***</sup>	.833 <sup>***</sup>
Human Development Index	-.551 <sup>***</sup>	-.558 <sup>***</sup>
Urbanization	-.243 <sup>+</sup>	-.412 <sup>**</sup>
Fragile States Index	.659 <sup>***</sup>	.604 <sup>***</sup>
Religious Diversity Index	-.354 <sup>*</sup>	-.247 <sup>+</sup>
Ratio diocesan priests/religious priests	.182	.215
Alesina et al.'s Religious Diversity Index	.034	.106
Colonialism	.035	.154
Communism	-.108	-.167
Scandal	-.03	-.039
Catholic state religion	.05	-.076
Historic share of Catholics	.003	-.098
Share of Catholics	.035	-.024
Government Restrictions Index	.043	.007

Significance levels: \*\*\*  $p < .001$ ; \*\*  $p < .010$ ; \*  $p < .050$ ; +  $p < .100$ .

<sup>a</sup>Aggregated value.

interaction with a spirit world—with traditional Catholic beliefs and practices imported by foreign, mainly Western, missionaries (Ter Haar 2009), a situation less applicable to other world regions.

Regarding Western societies, the differences between the United States and Europe, Australia, and New Zealand are noteworthy. Indeed, for all three indicators of religious commitment among Catholics, the United States (importance of God: 8.40; private prayer: 7.37; church attendance: 4.72) scores much higher when compared to these other countries/regions.

The key research question we seek to answer concerns whether we can predict country-level differences in religious commitment among Catholics in 52 countries. To that end we first inspect the correlation matrix between the aggregated means of our dependent variables (self-rated importance of God, private prayer, and church attendance). Table 3 shows four things. First, at the aggregated level, our three dependent variables are highly correlated ( $r_s > .722$ ). Not surprisingly, then, the correlations between several predictors are similar for each of the outcomes. There are, however, a few interesting exceptions to this general pattern. Colonialism, for example, correlates with church attendance ( $r = .380$ ), but is completely unrelated to the self-perceived importance of God. For the Religious Diversity Index, we found the opposite pattern, that is, the correlation with the perceived importance of God ( $r = -.354$ ) is considerably stronger when compared to church attendance ( $r = -.189$ ).

Second, the correlations between urbanization, HDI, and the Fragile States Index are strong, highly significant, and theoretically consistent. These variables are also strongly correlated with the three outcomes (except for urbanization). The correlations are strongest for the Fragile States Index (which is itself highly correlated with the HDI). Third, when compared to these rather strong correlations, those for the other independent macro-level indicators and the aggregated dependent variables are relatively weak and in most cases nonsignificant. Only for religious diversity, the share of non-Catholic Christians, and the ratio of diocesan priests to religious priests do we find significant correlations. Fourth, the high correlations between some of the country-level independent variables deserve some comment. Although modernization and economic security are related but theoretically distinct concepts, their measures (HDI and the Fragile States Index) in practice tend to be highly correlated. This is also the case for the religious competition/historic

Catholic market share and Catholic state religion variables (countries with low competition/high numbers of Catholics often have stronger Catholic church-state unions). While these measures are quite strongly correlated, we attempt to evaluate their individual contribution to the dependent variable.

### Multilevel Analysis

In the next part of the study we conducted multivariate multilevel analysis on the three dependent variables (Table 4). A first model only included a constant and allowed us to partition the variance according to the individual and country level. This “null model” allows us to examine between-country differences in religious beliefs and practices among Catholics in the 52 countries. This variation is considerable, with intercountry correlations (ICC) ranging between 19.5 and 23.4 percent (see Ruiter and van Tubergen 2009 for a similar finding regarding church attendance).<sup>9</sup> Interestingly, country-level differences are largest for private religious beliefs (self-rated importance of God), somewhat smaller for public practices (church attendance), and smallest for private practices (prayer).

Next the macro-level predictors were entered. As we have only a limited number of observations at the country level ( $N = 52$ ), we cannot include all country-level variables simultaneously in the model. In order to find the most parsimonious model we estimated a series of models in which we first entered each macro-level variable separately in a model that included all individual-level indicators (see supporting information). These analyses led to exactly the same conclusions as those that could be derived from Table 3 (correlation matrix). Second, we estimated a model that included only the macro-level variables that had a significant effect on at least one of the outcomes (i.e., HDI, urbanization, Fragile States Index, Religious Diversity Index, and colonialism). Next, we ran additional models in which we entered each of the other nonsignificant variables. These analyses suggested that in a multivariate model communism and the ratio of diocesan priests to religious priests should be included. The results of this model are presented in Table 4 (Model 1). We further explored this model by assessing whether there were possible interaction effects between the different macro-level indicators (Models 2 and 3). Because we have three outcomes and aim to compare the explanatory power of different predictors, Table 4 reports the standardized regression coefficients ( $\beta$ s).

Before discussing the relationships at the country level, we focus on the individual-level differences in religious commitment of Catholics (Model 1). In general, the explanatory power of these individual-level characteristics is low (less than 10 percent). Due to the large number of observations at the individual level very small differences become significant. If we take  $\beta > .100$  (i.e., 1 percent of explained variance) as a criterion, only age and gender appear as relevant predictors for the three outcomes we study here. Catholic women are more religious when compared to men. The difference is largest for prayer ( $\beta = .163$ ), smaller for church attendance ( $\beta = .102$ ), and smallest for the subjective importance of God ( $\beta = .095$ ). With regard to age, older people tend to attach more importance to God, pray more, and attend church more often than their younger counterparts. For church attendance this relationship is linear, but for private beliefs (importance of God) and practices (prayer) it is curvilinear ( $\beta \text{ Age}^2 = .106$  and  $.094$ , respectively). One plausible explanation for this variation may be that church attendance is more dependent on people’s physical condition when compared to private practices.

The hypotheses we seek to test in this article all refer to country-level differences. As mentioned earlier, the between-country differences in religious commitment are considerable,

<sup>9</sup>The ICC refers to the proportion of the total variance that can be attributed to between-country differences rather than to within-country differences.



Table 4: Results of multilevel analyses of religious commitment among Catholics in 52 countries ( $N = 26,750$ )

	Importance of God			Private prayer			Church attendance		
	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
<b>Individual-level characteristics</b>									
Gender (0: male)	.095***	.095***	.095***	.163***	.163***	.163***	.102***	.102***	.102***
Age	.015	.015	.015	.059 <sup>+</sup>	.059 <sup>+</sup>	.059 <sup>+</sup>	.112**	.112**	.112**
Age <sup>2</sup>	.106**	.106**	.105**	.094**	.094**	.094**	.014	.014	.013
Children (0–8)	.028***	.028***	.028***	.036***	.036***	.036***	.034***	.034***	.034***
Marital status (0: not married)	.011 <sup>+</sup>	.011 <sup>+</sup>	.011 <sup>+</sup>	-.017**	-.017**	-.017**	.034***	.034***	.034***
Education (0: low)									
Medium	-.031***	-.031***	-.031***	-.009	-.009	-.009	.011	.011	.011 <sup>+</sup>
High	-.015*	-.015*	-.015*	.018**	.018**	.018**	.056***	.056***	.056***
Employment status (0: full time)									
Part time	-.001	-.001	-.001	.006	.006	.006	.003	.003	.003
Self-employed	-.010 <sup>+</sup>	-.010 <sup>+</sup>	-.010 <sup>+</sup>	.015*	.015*	.015*	.012*	.012*	.013*
Retired	.030***	.030***	.030***	.041***	.041***	.041***	.041***	.041***	.041***
Housewife	.010	.010	.010	.018**	.018**	.018**	.031***	.031***	.031***
Student	-.017**	-.017**	-.017**	-.005	-.005	-.005	.034***	.034***	.034***
Unemployed	.000	.000	.000	-.003	-.003	-.003	-.008	-.008	-.008
Other	.012*	.012*	.012*	.009	.009	.009	-.014*	-.014*	-.014*
Argentina	.003	.010	.024	-.014	-.007	.004	-.036	-.037	-.023
<b>Country-level characteristics</b>									
Human Development Index	-.001	.016	-.012	.002	.018	-.006	-.102	-.102	-.132*
Urbanization	.048	.049	.005	-.073	-.073	-.108*	-.024	-.024	-.066
Fragile States Index	.356***	.353***	.298***	.267***	.265***	.220**	.175*	.175*	.121 <sup>+</sup>
Colonialism (0/1)	.044	.056	-.031	.067	.079	.008	.166**	.166**	.080
Communism (0/1)	-.104*	-.129*	-.097*	-.152**	-.176***	-.150**	-.119*	-.118*	-.086 <sup>+</sup>

(continued)

Table 4: (Continued)

	Importance of God			Private prayer			Church attendance		
	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
Religious Diversity Index	-.097*	-.145**	.064	-.064	-.111*	.060	-.059	-.057	.149*
Ratio diocesan/religious priests	.062+	.051	.033	.059+	.048	.034	.017	.017	-.001
Government Restrictions Index	-.048	-.055	-.040	-.043	-.049	-.037	.011	.011	.026
Share of Catholics		-.068	.179*		-.065	.135+		.002	.244**
RDI × Share of Catholics			-.295***			-.239**			-.286***
<b>Variance components model</b>									
Individual	5,433	5,433	5,433	9,750	9,750	9,750	5,534	5,534	5,534
Country	747	719	553	1,191	1,149	949	617	617	473
Deviance	-60844.693	-60843.872	-60837.505	-68680.879	-68680.071	-68675.763	-61085.479	-61085.478	-61078.957
Explained variance									
% individual level	5.117	5.117	5.117	8.201	8.201	8.201	4.930	4.930	4.930
% country level	57.314	58.914	68.400	53.585	55.222	63.016	58.198	58.198	67.954
% total	17.335	17.710	19.930	17.032	17.350	18.867	15.705	15.705	17.678
<b>Variance components</b>									
Individual	5,726	5,726	5,726	10,621	10,621	10,621	5,821	5,821	5,821
Country	1,750	1,750	1,750	2,566	2,566	2,566	1,476	1,476	1,476

Source: Pooled data EYS (wave 4) and WVS (wave 6).

Note: Cell entries are standardized regression coefficients.

Significance levels: \*\*\*  $p < .001$ ; \*\*  $p < .010$ ; \*  $p < .050$ ; +  $p < .100$ .

Parameters null model:

Importance of God:  $\sigma^2_{\text{individual level}}$ : 5.726;  $\sigma^2_{\text{country level}}$ : 5.726; deviance: -61567.8

Private prayer:  $\sigma^2_{\text{individual level}}$ : 10.621;  $\sigma^2_{\text{country level}}$ : 2.566; deviance: -69846.2

Church attendance:  $\sigma^2_{\text{individual level}}$ : 5.820;  $\sigma^2_{\text{country level}}$ : 1.476; deviance: -61784.0

leaving ample room for testing macro-level explanations. Model 1 in Table 4 warrants three conclusions.

First, in a multivariate model we find no significant effect for urbanization and human development. We do, however, find a significant positive effect for the Fragile States Index, suggesting that people who live in countries where the state's capacity to meet basic human needs is weak, attach more importance to believing in God, pray more often, and go more frequently to church. The relationship is strongest for the importance of God ( $\beta = .356$ ), somewhat weaker for private prayer ( $\beta = .267$ ), and weakest for church attendance ( $\beta = .175$ ). When compared to other predictors, the Fragile States Index clearly outperforms in predicting religious commitment among Catholics. However, two further considerations are worth mentioning. First, Model 1 estimates the unique effect of each of the indicators. From Table 3 we know that these macro-level predictors are strongly correlated.<sup>10</sup> The Fragile States Index actually mediates to a great extent the effect of both HDI and urbanization. This suggests that the common variance between these three indicators is strongly related to religious commitment. That conclusion, secondly, is further underscored by the fact that in the final model (Model 3) we do find significant negative effects for human development ( $\beta = -.132$  for church attendance) and urbanization ( $\beta = -.108$  for prayer). Taken together, these results provide partial support for the classic secularization theory (Hypothesis 1a) and strong confirmation of more recent reformulations of this theory (i.e., the existential security perspective) in understanding religious commitment within the all-Catholic group (Hypothesis 1b).

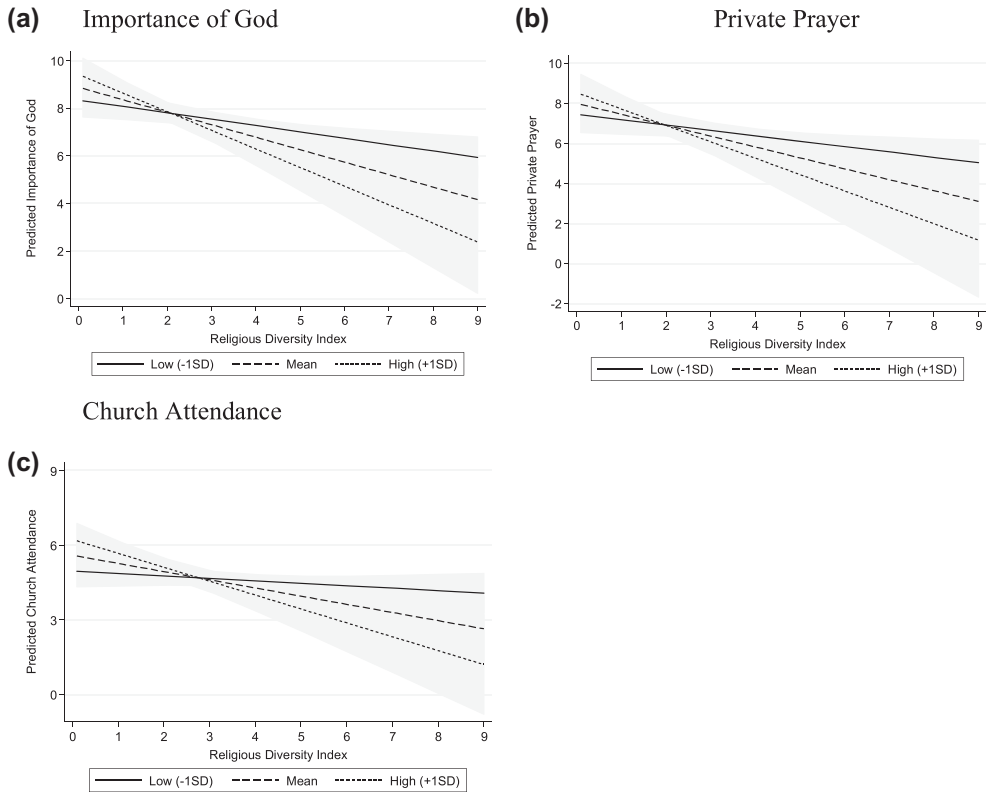
Second, state regulation of religiosity has no effect on religious commitment (no support for Hypothesis 2a). Regarding religious diversity the results are mixed. It is quite clear that religious diversity (considered here as an indicator of religious pluralism) negatively affects private religious beliefs ( $\beta = -.097$ ) and practices ( $\beta = -.064$ ;  $p < .150$ ). This effect also becomes stronger ( $\beta = -.145$  and  $-.111$ , respectively) once the overall Catholic market share is taken into account (Model 2). No effect is found for church attendance. A similar (albeit weaker) pattern is found for the ratio of diocesan priests to religious priests. All other variables that refer to the specificity of the religious context (e.g., Alesina et al.'s Index of Religious Diversity) had no effect on the religious belief and practices that we study here. While it may be the case that religious groups as a whole are better at fulfilling spiritual needs where they operate in a competitive religious environment, this may be less applicable within the specifically Catholic tradition (no support for Hypotheses 2b and 2c).

Third, even after taking into account the current state of affairs in countries (in terms of modernization, pluralism, etc.) we also find that a country's history matters. For all three outcomes, we find a significant negative effect for communism ( $-.104 < \beta < -.152$ ) (support for Hypothesis 3c). In addition, Catholics living in countries that became independent in the 20th century continue to attend churches more often ( $\beta = .166$ ; the latter effect disappears in the final model) when compared to Catholics who live in countries with a longer history of independence (partial support for Hypothesis 3d). As reported earlier, no effects for the experience of scandal/pedophilia or close Catholic church-state interactions (i.e., having a Catholic state religion) were found for any of the indicators of religious commitment (no support for Hypotheses 3a and 3b).

After having focused on the main effects of each of the macro-level indicators we looked for possible interaction effects (Models 2–3). Although for none of the outcomes is there a main effect for the Catholic market share in a country (Model 2), the latter quite strongly moderates the relationship between religious diversity and each of the three outcomes (Model 3). To ease the interpretations, Figure 1 visualizes this interaction effect by plotting the relationship between religious diversity and the three outcomes for three levels of Catholic market share ( $-SD$ , *mean*,

<sup>10</sup>Additional checks showed that these models did not suffer from multicollinearity problems. One can also see that one of the typical problems associated with multicollinearity (strong but not significant effects) is not present here.

Figure 1  
Interaction effects between share of Catholics and religious diversity



Source: Authors' calculations from the EVS/WVS based on Model 3, Table 4.

+1 SD). The general pattern for each outcome is the same: religious diversity has a much stronger negative impact in countries where the overall Catholic market share is higher.

### CONCLUSION

In this article we studied world regional variations in three indicators of religious commitment—the subjective importance of God, prayer, and church attendance—among Catholics living in 52 Western and non-Western countries, where the market share of Catholics ranged from majority status to a relatively low level. While some of the best studies of cross-national religious commitment do not confine themselves to a single religious tradition (Ruiter and van Tubergen 2009), the added value of examining cross-national variability in commitment in the Catholic tradition—as opposed to studying all religions—is that it allows one to test whether important theories that have been used to explain cross-national variation in religious commitment in general can also be applied to specific religious groups, in this case, Catholicism. As such, this analysis brings out a key tension in cross-national research between developing general theories on the one hand and recognizing important differences between religions on the other.

Two general findings are noteworthy. First, even within this group of countries *between*-country differences in religious commitments were considerable and *within*-country differences related to social demographics rather modest. That observation illustrates that religious

commitment is, at the beginning of the 21st century, to a large extent influenced by the social environment in which one lives. Second, the overall amount of explained variance at the country level was very high, suggesting that the existing theories provide a rather comprehensive explanation for cross-national differences in religious commitment among Catholics.

Among a group of traditionally Catholic countries, what explains why some countries have fewer or more Catholics today than they did before? We found that rather than Catholicism being more competitive at fulfilling spiritual needs and tastes or being more culturally defensive (and thus keeping commitment for longer through developing institutions such as trade unions, youth clubs, and other social organizations) (Martin 1978), Catholic identity and practice are being eroded by modern society (albeit at different paces in different world regions), where existential security has made significant inroads among the general populace within the all-Catholic group. Indeed, when evaluated in a single model the existential security perspective outperforms—in respect of all three indicators of religiosity—the classical secularization perspective. This points to the potentially important role of states in providing security, in strong contrast to the classic secularization focus on social processes. In addition, the effect of existential security is stronger for self-rated importance of God than for the other two indicators. It may be that for devotees facing strong day-to-day survival challenges, the “costs” in terms of time and effort are lower for religious orientations than for engaging in more time-intensive behaviors such as prayer and church attendance (Azzi and Ehrenberg 1975; Minarik 2014). Thus, our findings underwrite the significance of differentiating between different kinds of religious involvement in comparative research and theory.

The second important conclusion from this study is the underscoring of the importance of historical legacies scholarship in understanding variation in global Catholicism. We found that historical legacies such as communism and colonialism have a significant impact on religious commitment. Surprisingly, we did not find support for the sexual scandal legacy. It may be that the impact of relatively recent scandal on religious commitment is a gradual process and thus may best be observed over time in each country, rather than between countries.

Overall, then, we were able to test the relative importance of each general theory within a specific tradition, with the secularization/existential security perspective having the most explanatory power. At the same time, the other theories allowed us to explain more specific differences between countries.

Even so, it is important to acknowledge some shortcomings of our study. First, more attention could be given to explaining why some Catholic countries such as Belgium and Hungary, which started out as basically 100 percent Catholic at one time, now have fewer adherents who self-identify as Catholics and low levels of church attendance while other Catholic societies, such as Ireland and Slovakia, which began from more or less the same position, today have large Catholic majorities and relatively high levels of church attendance. Perhaps particular church-state arrangements explain why societies with basically similar starting points developed quite different pathways or trajectories of religious change (Driessen 2014a, 2014b), but more cross-national research on this topic is needed. Second, although we included three measures of religious commitment, future studies could examine variation in others not included here. Two elements seem especially worthwhile studying, especially if one seeks to study the consequences of religious involvement for behaving, thinking, and feeling. On the one hand, it would be interesting to focus on the relevance of indicators that are more directly related to the specificity of the Catholic tradition, such as the degree of commitment to church teachings. For these more distinct elements, even greater cross-national variation is likely to be found. In addition, future studies could pay more careful attention to possible interaction effects between religious diversity and Catholic market share (see Figure 1). For all three indicators of religiosity, we found that the negative effect of religious diversity is stronger when the overall share of Catholics in a country is higher. This was a nonanticipated finding and different interpretations are possible. Perhaps this reflects a specific manifestation of a “lazy” market syndrome whereby the supply side of

religion becomes weaker when the market share of religion is more comfortable, but it is also possible that the entire dynamic of religious competition and the reciprocal relationships between religious communities changes when there is one dominant religion and many smaller religions (rather than a higher number of religious communities of comparable size).

Third, while our analysis includes 52 countries representing varying world macro regions, it does not represent the full range of Catholic societies within all of these geographical areas, especially Africa and Asia. Future research could usefully extend this research to more settings within these world regions. In addition, future studies could place stronger emphasis on subnational variation, especially in societies such as Germany where considerable local-level variation in Catholic market share exists. Notwithstanding these shortcomings, this article attempts to advance understanding of variation in Catholic commitment across diverse locales of the church. While a few conceptual models cannot likely explain all of this variation, secularization/existential security, religious market, and historical legacy perspectives may provide useful frameworks (to varying degrees) for better understanding variability in Catholicism, the world's most global and longest established religious institution.

## REFERENCES

- Alesina, Alberto, Arnaud Devleeschauwer, William Easterly, Sergio Kurlat, and Romain Wacziarg. 2003. Fractionalization. *Journal of Economic Growth* 8(2):155–94.
- Annuario Statisticum Ecclesiae. 2008. Vatican City: Vatican Library.
- Azzi, Corry and Ronald G. Ehrenberg. 1975. Household allocation of time and church attendance. *Journal of Political Economy* 83(1):27–56.
- Barrett, David B., George T. Kurian, and Todd M. Johnson. 2001. World Christian encyclopedia: A comparative survey of churches and religions in the modern world. *Volume 1: The world by countries: religionists, churches, ministries*, 2nd ed. Oxford: Oxford University Press.
- Barro, Robert J. and Rachel M. McCleary. 2005. Which countries have state religions? *Quarterly Journal of Economics* 120(4):1331–70.
- Buckley, David T. and Luis Felipe Mantilla. 2013. God and governance: Development, state capacity, and the regulation of religion. *Journal for the Scientific Study of Religion* 52(2):328–48.
- Calderisi, Robert. 2013. *Earthly mission: The Catholic Church and world development*. New Haven: Yale University Press.
- Chaves, Mark and David E. Cann. 1992. Regulation, pluralism, and religious market structure explaining religion's vitality. *Rationality and Society* 4(3):272–90.
- Coleman, John A. 1978. *The evolution of Dutch Catholicism, 1958–1974*. Berkeley: University of California Press.
- Conway, Brian. 2014. Religious institutions and sexual scandals: A comparative study of Catholicism in Ireland, South Africa and the United States. *International Journal of Comparative Sociology* 55(4):318–40.
- Dillon, Michele. 2006. The struggle to preserve religious capital: A sociological perspective on the Catholic Church in the United States. In *Church ethics and its organizational context: Learning from the child sex scandal in the Catholic Church*, edited by Jean M. Bartunek, Mary Ann Hinsdale, and James F. Keenan, pp. 43–46. Lanham: Rowman & Littlefield Publishers.
- Diotallevi, Luca. 2002. Internal competition in a national religious monopoly: The Catholic effect and the Italian case. *Sociology of Religion* 63(2):137–55.
- Driessen, Michael D. 2014a. *Religion and democratization: Framing religious and political identities in Muslim and Catholic societies*. Oxford: Oxford University Press.
- . 2014b. Regime type, religion-state arrangements, and religious markets in the Muslim world. *Sociology of Religion* 75(3):367–94.
- European Values Study. 2011. *European Values Study 1981-2008, Longitudinal data file*, version 1.0.0. Cologne, Germany: GESIS Data Archive.
- Fox, Jonathan. 2008. *A world survey of religion and the state*. Cambridge: Cambridge University Press.
- Froese, Paul. 2004. After atheism: An analysis of religious monopolies in the post-communist world. *Sociology of Religion* 65(1):57–75.
- Gill, Anthony. 1998. *Rendering unto Caesar: The Catholic Church and the state in Latin America*. Chicago: University of Chicago Press.
- Greeley, Andrew M. 2003. *Religion in Europe at the end of the second millennium: A sociological profile*. New Brunswick: Transaction Publishers.

- Grzymala-Busse, Anna. 2015. *Nations under God: How churches use moral authority to influence policy*. Princeton: Princeton University Press.
- Hamberg, Eva M. 2015. Religious monopolies, religious pluralism, and secularization: The relationship between religious pluralism and religious participation in Sweden. *International Journal of Research on Religion* 11:1–15. Available at [http://www.religionjournal.com/articles/article\\_view.php?id=97](http://www.religionjournal.com/articles/article_view.php?id=97), accessed June 3, 2015.
- Hensel, Paul R. 2014. ICOW colonial history dataset, version 1.0. Available at <http://www.paulhensel.org/icowcol.html>, accessed November 20, 2017.
- Inglehart, Ronald, Christian W., Haerpfer, Alejandro Moreno, Christian Welzel, Kseniya Kizilova, Jaime Díez-Medrano, Marta Lagos, Pippa Norris, Eduard Ponarin, and Bi Puranen. et al. (eds.). 2015. World Values Survey 1981–2015 official aggregate v.20150418, 2015. World Values Survey Association (<http://www.worldvaluessurvey.org>). Aggregate File Producer: JD Systems Institute, Madrid.
- Keenan, Marie. 2012. *Child sexual abuse and the Catholic Church: Gender, power and organizational culture*. Oxford: Oxford University Press.
- Kelley, Jonathan and Nan Dirk De Graaf. 1997. National context, parental socialization, and religious belief: Results from 15 nations. *American Sociological Review* 62(4):639–59.
- Kollman, Paul. 2012. Generations of Catholics in Eastern Africa: A practice-centered analysis of religious change. *Journal for the Scientific Study of Religion* 51(3):412–28.
- Kuru, Ahmet T. 2007. Passive and assertive secularism: Historical conditions, ideological struggles, and state policies toward religion. *World Politics* 59(4):568–94.
- Linden, Ian. 2009. *Global Catholicism: Diversity and change since Vatican II*. New York: Columbia University Press.
- Martin, David. 1978. *A general theory of secularization*. New York: Harper and Row.
- . 2005. *On secularization: Towards a revised general theory*. Aldershot: Ashgate.
- Minarik, Pavol. 2014. Employment, wages, and religious revivals in postcommunist countries. *Journal for the Scientific Study of Religion* 53(2):296–315.
- Morello, Gustavo. 2015. *The Catholic Church and Argentina's dirty war*. Oxford: Oxford University Press.
- Need, Ariana and Geoffrey Evans. 2001. Analysing patterns of religious participation in post-communist Eastern Europe. *British Journal of Sociology* 52(2):229–48.
- Norris, Pippa and Ronald Inglehart. 2004. *Sacred and secular: Religion and politics worldwide*. Cambridge: Cambridge University Press.
- Pollack, Detlef. 2003. Religiousness inside and outside the church in selected post communist countries of Central and Eastern Europe. *Social Compass* 50(3):321–34.
- Ruiter, Stijn and Frank van Tubergen 2009. Religious attendance in cross-national perspective: A multilevel analysis of 60 countries. *American Journal of Sociology* 115(3):863–95.
- Smith, Ian and John W. Sawkins. 2003. The economics of regional variation in religious attendance. *Applied Economics* 35(14):1577–88.
- Stark, Rodney. 1992. Do Catholic societies exist? *Rationality and Society* 4(3):26171.
- Stark, Rodney and Roger Finke. 2000. *Acts of faith: Explaining the human side of religion*. Berkeley: University of California Press.
- Stark, Rodney and Charles Y. Glock. 1968. *American piety: The nature of religious commitment*. Berkeley: University of California Press.
- Stark, Rodney and James C. McCann. 1993. Market forces and Catholic commitment: Exploring the new paradigm. *Journal for the Scientific Study of Religion* 32(2):111–24.
- Stolz, Jörg, Judith Könemann, Mallory Schneuwly Purdie, Thomas Englberger, and Michael Krüggeler. 2016. *(Un)Believing in modern society: Religion, spirituality, and religious-secular competition*. London: Routledge.
- Swatos, William H., Jr. and Daniel V. A. Olson, eds. 2000. *The secularization debate*. Lanham: Rowman & Littlefield.
- Ter Haar, Gerrie. 2009. *How God became African African spirituality and Western secular thought*. Philadelphia: University of Pennsylvania Press.
- Turner, Frederick C. 1971. *Catholicism and political development in Latin America*. Chapel Hill: University of North Carolina Press.
- Van Tubergen, Frank. 2006. Religious affiliation and attendance among immigrants in eight Western countries: Individual and contextual effects. *Journal for the Scientific Study of Religion* 45(1):1–22.
- Voas, David. 2007. Surveys of behaviour, beliefs and affiliation: Micro-quantitative. In *The SAGE handbook of the sociology of religion*, edited by James A. Beckford and N. J. Demerath III, pp. 144–66. London: Sage.
- Ziegler, Jeff. J. 2011. Where converts are made. *Catholic World Report*. Available at [http://www.catholicworldreport.com/Item/679/where\\_converters\\_are\\_made.asp](http://www.catholicworldreport.com/Item/679/where_converters_are_made.asp), accessed February 12, 2016.

**SUPPORTING INFORMATION**

Additional supporting information may be found online in the Supporting Information section at the end of the article.

**Table A1.** Results of multilevel analyses of perceived importance of God among Catholics in 52 countries

**Table A2.** Results of multilevel analyses of private prayer among Catholics in 52 countries

**Table A3.** Results of multilevel analyses of church attendance among Catholics in 52 countries