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HUMAN SECURITY AND RELIGIOUS CHANGE: AN ANALYSIS OF 65 SOCIETIES ACROSS 1981–2014[3]

Previous research has provided substantial support for the modernization theory by demonstrating that societies with high levels of human security are significantly less religious than societies with low levels of human security. This study presents a stronger assessment of the theory by testing a hypothesis that society's level of human security also shapes trends in religious commitment over time. In our analysis, we use repeated cross-sectional survey data from 65 countries covering the 33-year time span from 1981 to 2014. Our empirical design draws on multilevel regression modeling in predicting country-level differences in religious change. Our findings demonstrate that high levels of human security were significantly linked with decline in religiosity during this period whereas low levels of security, conversely, were associated with rising emphasis on religion. The collapse of the prevailing belief system that occurred in ex-communist countries during this period tended to produce growing emphasis on religion, but the extent to which this happened depended on society's level of human security. Overall, our results provide strong support for the revised version of secularization theory, which claims that declining religiosity depends on high levels human security.

JEL Classification: Z.

Keywords: religiosity, modernization, human security.

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Introduction

Historically, the topic of religiosity and religious change was one of the cornerstones of sociology. For such classic writers as Karl Marx, Emile Durkheim, Georg Simmel, and Max Weber, religion was an ideal field to study the shift from traditional to modern society that was rapidly occurring in 19th century Europe. After a relative decline during the postwar decades, at the turn of the millennium the study of religion and religiosity once again came to the forefront of social research. This new wave of attention towards religious phenomena among social scientists was stimulated by the rise of Islamic fundamentalism, the continuing occurrence of religious violence, and the persistent importance of religion in American politics and society (see Smith, 2008).

In academic sociology, this new wave is largely marked by intense debate between critics and proponents of the secularization framework (see Gorski and Altinordu [2008] for a comprehensive overview). This is not surprising: obvious signs of religious revival in many countries stimulated interest in religion and religiosity, and called in question the basic premise of the classic secularization paradigm—the inevitable decline of importance of religion in social life. Some authors went so far as to claim the death of secularization as a useful concept in social research (Stark, 1999), while proponents of secularization theory insisted that the term remained a useful analytical category that could describe empirically observable phenomena (Chaves, 1994). Other authors criticized Stark for oversimplifying the claims of secularization theory, which predicted not a total disappearance but a conditional decline of religiosity (Norris and Inglehart 2011).

This theoretical debate provoked a surge of empirical work on secularization as well as its causes and consequences. Until very recently, empirical cross-national research on religiosity has been dominated by cross-sectional analysis (e.g., Halman and Draulans, 2006; McCleary and Barro, 2006; Norris and Inglehart, 2011). More recently, multilevel analysis combining individual-level and country-level predictors in the study of comparative religiosity has been applied (e.g., Ruiter and van Tubergen, 2009). The general finding that more developed societies are less religious is remarkably stable across these studies, providing important indirect support for the modernization approach. But this evidence does not prove the existence of a causal effect of human security on religiosity, which requires analyzing changes in religiosity over time. Such attempts were made in studies using qualitative methods in the historical analysis of religious change (see Gorski [2000] for an example). Unfortunately, such studies are relatively rare and they are not as generalizable as statistical evidence. Quantitative research tracing religious change across more than one decade started to appear only recently and, due to data availability, was limited to single countries or regions (Burkimsher, 2014; Hay, 2014; Hirschle, 2013; Pollack and Pickel, 2007).

While previous research has demonstrated that societies with high levels of economic and physical security place less emphasis on religion than societies with low levels of security, this study

tests the hypothesis that a society's level of security also shapes trends over time. To test this hypothesis, we use data from the World Values Survey (WVS) and the European Values Study (EVS). The combined EVS/WVS dataset covers over 100 societies across a time span of more than 30 years, making it possible to analyze religious change in a diverse set of countries across several decades–-and to test whether human security predicts different trends in emphasis on religion, as well as overall levels of religiosity. To estimate a model of religious change, we employ multilevel design treating observations as nested within countries. The results strongly suggest that high levels of human security significantly contribute to both low *levels* of overall religiosity and downward *trends* in emphasis on religion.

Evolutionary Modernization Theory

Classic versions of modernization theory emphasized cognitive factors, claiming that the spread of scientific knowledge would render religious explanations the world outmoded. This implied that secularization would occur in all societies regardless of their level of economic development, if scientific knowledge reached them. By the late 20th century, it was evident that secularization was not sweeping the world. Despite massive scientific progress and the global spread of scientific knowledge, religion had persisted and spread.

The claim that human security represents a major driving force underlying secularization is relatively recent but has become widely applied in cross-national empirical studies. Inglehart's (1997) revised version of modernization theory suggests that when a society attains sufficiently high levels of economic and physical security that its people grow up taking survival for granted, it opens the way for major cultural changes. Concerning religion, Norris and Inglehart (2011: 18) argued that "the experiences of growing up in less secure societies will heighten the importance of religious values, while conversely experience of more secure conditions will lessen it." One important function of religion, within this paradigm, is to provide reassurance that things will work out, despite threats to survival posed by starvation, war, crime, and disease. In so far as technological progress and economic development diminished these threats, the psychological need for religion would diminish.

This formulation of secularization theory implies that secularization will not sweep the world uniformly–-it will occur only societies that have attained high levels of existential security, and even there it will not come over night but will spread gradually through a process of intergenerational population replacement, as younger birth cohorts who have grown up under relatively secure conditions replace older cohorts that experienced starvation, disease and war.

This version of secularization theory discussed the implications of achieving high levels of national income without genuine modernization, as in the case of oil-exporting countries–-since high levels of national income do not necessarily produce high levels of existential security, particularly when linked with high levels of inequality (Inglehart and Norris, 2012). In addition to economic

insecurity, violence, disease and natural disasters can threaten people's physical survival, maintaining the need for religious reassurance in a dangerous world.

The version of secularization theory also argues that religion is not the only way in which people may seek to cope with psychological insecurity. Historical evidence suggests that millions of Germans turned to the Nazi ideology to offset the massive insecurity engendered by defeat in World War I, followed by hyperinflation and the Great Depression. Many others responded to such factors by turning to a communist ideology, which once provided millions of people with a sense of meaning and purpose, and confidence that Scientific Socialism would bring prosperity and justice. If this were true, then we would expect that the recent collapse of the communist belief system would produce an ideological vacuum–-one that might be filled by a resurgence of religion (or by rising nationalism and faith in strong leaders).

Cross-national comparative studies tend to support this approach to religiosity by demonstrating stable and significant positive relationships between economic development and declining religiosity (e.g., Halman and Draulans, 2006; McCleary and Barro, 2006). There are also individual-level studies linking personal religiosity to various kinds of individual insecurities (e.g., Immerzeel and van Tubergen, 2013). However, cross-sectional studies of religiosity are frequently criticized for their lack of time perspective. The fact that the some societies tend to share high levels of development and low levels of religiosity, does not necessarily indicate that one led to the other. In order to address this problem, this article seeks to demonstrate that human security can explain not only overall cross-sectional differences in religiosity, but also patterns of religious *change*.

Recent empirical research that took advantage of longitudinal data in the study of religious change did not come to a definite conclusion with regard to its origins. On the one hand, demand-side factors, including changes in people's worldview, were found to play a significant role in decreasing religious commitment (e.g., Hay, 2014). On the other hand, there is no agreement concerning the importance of the human security as a specific mechanism behind the process of secularization. Some studies suggest that the patterns of declining religiosity in Europe do not follow the conventional "secularization of consciousness" hypothesis–-that a decline in religious belief follows rather than precedes a drop in participation (Hirschle, 2013). Others argue that phenomena related to the individualization of religious consumption, such as non-church religiosity, are much smaller in magnitude than the overall decline of organized religion (Pollack and Pickel, 2007).

Fortunately, one of the most recent pieces of empirical evidence demonstrates the presence of substantial cross-national variation in trends in religious participation, which offers an important research opportunity (Burkimsher, 2014). The present study is designed to test the hypothesis that human security is a significant factor explaining cross-country differences in trajectories of religious change across the last three decades, using large-N comparative survey data.

Data and Measures

In addressing the above hypotheses, we relied on the data of the World Values Survey (WVS) and the European Values Study (EVS). WVS and EVS are coordinated large-scale mass surveys designed for studying public values and attitudes in Europe and globally. The six waves of the WVS and the four waves of the EVS provide nationally representative data from more than 100 societies in all regions of the world over a time span of 33 years, from 1981 to 2014. Although the WVS and EVS exist as separate data files available online, we combined them. This produced a unified file containing data from more than 500,000 respondents collected through 360 surveys in 109 countries and territories. From this database, we selected four questions that were asked across cross-nationally and over time to construct our measures of religiosity.

Importance of religion: "For each of the following aspects, indicate how important it is in your life: Religion." Answers were coded into four categories, from 1 = *Very important* to *4 = Not at all important.*

Religious attendance: "Apart from weddings, funerals and christenings, about how often do you attend religious services these days?" Answers were coded into eight categories, from 1 = *More than once a week* to 8 = *Never or practically never*.

Self-assessed religiosity: "Independently of whether you go to church or not, [how religious] would you say you are?" Answers were coded into three categories, from 1 = *A religious person* to 3 = *A convinced atheist*.

Importance of God: "How important is God in your life?" Answers were coded into three categories, from 1 = *Not at all important* to 10 = *Very important*.

We normalized all four variables to a scale from 0 (least religious) to 100 (most religious). We then used individual-level answers to obtain mean scores for various aspects of religiosity on the country–year level (e.g., Albania 1998, Albania 2002, Albania 2008, etc.) applying survey weights included in the WVS/EVS data. The results of factor analysis at both the country level and the country–year level demonstrated that more than 80% of variance in the four indicators was explained by the single factor (see Table 1). Following this result, we computed an index of overall religiosity as an arithmetic mean of the four indicators for each available observation. When some of the indicators were not available, the index was calculated from available data and then appropriately scaled.

In our empirical analysis, we used two different measures of human security. First, we employed a standard indicator of a country's economic development level, natural logarithm of expenditure-side GDP per capita adjusted for purchasing power parity (PPP). Data on GDP were taken from the most recent version of the Penn World Table (Feenstra, Inklaar and Timmer, 2015). As an alternative measure of human security, we used the natural logarithm of infant mortality rate

per 1,000 live births. Unlike GDP per capita, infant mortality potentially accounts for additional components of human security that are not necessarily reducible to national income, such as quality of public healthcare, prevalence of major diseases, and displacement of population because of military conflicts, making it more compatible with the most recent version of modernization theory (Inglehart and Norris, 2012). In the analysis, we used infant mortality data calculated by the Population Division within the Department of Economic and Social Affairs of the United Nations. GDP estimates for some of the countries included in the analysis were available since 1990. Infant mortality data, in turn, was supplied by 5-year periods. To make the two indicators fully comparable, we used GDP per capita and infant mortality estimates between 1990 and 1995. Finally, both GDP per capita and infant mortality were normalized to a scale from 0 (least secure) to 1 (most secure) so that the polarity of the infant mortality indicator was effectively reversed.

Table 1. Factor analysis of six religiosity indicators

	Country-years	Countries
Importance of religion	0.946	0.943
Religious attendance	0.870	0.864
Self-assessed religiosity	0.871	0.889
Importance of God	0.949	0.954
Proportion of explained variance	0.808	0.813
Observations	247	94

Note. Method is principal-component factor

Several cross-national studies have found that, countries ruled by communist regimes were less religious than other societies—but also that they also experienced a resurgence of religion commitment after the collapse of communism (e.g., Gautier, 2004; Need and Evans, 2001). To take this into account, we included a dummy variable that took the value of one for countries governed by communist regimes between 1940s and 1980s, and zero for other countries. We used this variable to predict both overall level of religiosity and direction of religious change in a society.

Another variable that is often assumed to affect religiosity across societies is a society's cultural heritage. In this analysis, we used the concept of a religious culture proposed by Norris and Inglehart (2011). This classification is based on the dominant religion of a given society and has been widely applied in comparative research on religiosity. However, for the purpose of the present analysis we needed to classify a number of countries and territories that were not previously classified. In doing so, we based our decisions on the plurality religion according to the Pew Research Center (2011; 2012) data on religious composition of societies. Recent comparison of international religious data showed that estimates provided by the Pew Research Center were highly correlated with figures available from other sources (Hsu et al. 2008). Final classification used in the analysis

divided all analyzed countries and territories into the five following religious cultures: Catholic, Protestant, Orthodox, Muslim, and Eastern.

Aggregate indicators of religiosity were merged with country-level data on human security and the history/heritage variables described above in a single data file. Since we were analyzing religious *change*, we retained only those countries that were included in at least three waves of EVS and/or WVS in order to obtain reliable estimates of a country's trends in religiosity. The sample used in this analysis consisted of 294 observations (country–years) nested in 65 countries. The full list of societies included in the analysis (classified according to dominant religious culture) with respective survey years is presented in Table 2.

Table 2. Countries and territories included in the analysis classified by religious culture

Religious culture	Countries and territories	Cases
Catholic	Argentina (1984, 1991, 1995, 1999, 2006, 2013); Austria (1990, 1999, 2008); Belgium (1981, 1990, 1999, 2009); Brazil (1991, 1997, 2006); Canada (1982, 1990, 2000, 2006); Chile (1990, 1996, 2000, 2005, 2011); Colombia (1997, 1998, 2005, 2012); Croatia (1996, 1999, 2008); Czech Republic (1990, 1991, 1998, 1999, 2008); France (1990, 1999, 2006, 2008); Hungary (1982, 1991, 1998, 1999, 2008); Ireland (1981, 1990, 1999, 2008); Italy (1981, 1990, 1999, 2005, 2009); Lithuania (1990, 1997, 1999, 2008); Malta (1983, 1991, 1999, 2008); Mexico (1981, 1990, 1996, 2000, 2005, 2012); Peru (1996, 2001, 2008, 2012); Philippines (1996, 2001, 2012); Poland (1989, 1990, 1997, 1999, 2005, 2008, 2012); Portugal (1990, 1999, 2008); Slovakia (1990, 1991, 1998, 1999, 2008); Slovenia (1992, 1995, 1999, 2005, 2008, 2011); Spain (1981, 1990[a], 1995, 1999, 2000, 2007, 2008, 2011); Uruguay (1996, 2006, 2011)	110 observations 24 countries
Protestant	Australia (1981, 1995, 2005, 2012); Denmark (1981, 1990, 1999, 2008); Estonia (1990, 1996, 1999, 2008, 2011); Finland (1981, 1990, 1996, 2000, 2005, 2009); Germany (1981, 1990, 1997, 1999, 2006, 2008, 2013); Iceland (1984, 1990, 1999, 2009); Latvia (1990, 1996, 1999, 2008); Netherlands (1981, 1990, 1999, 2006, 2008, 2012); New Zealand (1998, 2004, 2011); Norway (1982, 1990, 1996, 2008[a]); South Africa (1982, 1990, 1996, 2001, 2007, 2013), Sweden (1982, 1990, 1996, 1999[a], 2006, 2009, 2011); Switzerland (1989, 1996, 2007, 2008); United Kingdom (1981, 1990, 1998, 1999, 2006, 2009); United States (1982, 1990, 1995, 1999, 2006, 2011)	78 observations 15 countries
Orthodox	Armenia (1997, 2008, 2011); Belarus (1990, 1996, 2000, 2008, 2011), Bulgaria (1991, 1997, 1999, 2006, 2008), Cyprus (2006, 2008, 2011); Macedonia (1998, 2001, 2008); Moldova (1996, 2002, 2006, 2008); Montenegro (1996, 2001, 2008); Romania (1993, 1998, 1999, 2005, 2008, 2012); Russia (1990, 1995, 1999, 2006, 2008, 2011); Serbia (1996, 2001, 2006, 2008); Ukraine (1996, 1999, 2006, 2008, 2011)	47 observations 11 countries
Muslim	Albania (1998, 2002, 2008); Azerbaijan (1997, 2008, 2011); Bangladesh (1996, 2002), Bosnia (1998, 2001, 2008); Egypt (2000, 2008, 2013); Iraq (2004, 2006, 2012); Jordan (2001, 2007, 2014); Morocco (2001, 2007, 2011); Nigeria (1990, 1995, 2000, 2011); Pakistan (1997, 2001, 2012); Turkey (1990, 1996, 2001[a], 2007, 2009)	35 observations 10 countries
Eastern	China (1990, 1995, 2001, 2007, 2012); India (1990, 1995, 2001, 2006); Japan (1981, 1990, 1995, 2000, 2005, 2010); South Korea (1982, 1990, 1996, 2001, 2005, 2010); Taiwan (1994, 2006, 2012)	24 observations 5 countries

Note. Total of 294 observations and 65 countries

Method

Many comparative studies that investigate changes in public opinion use a relatively simple method to estimate change, by calculating the difference between the first and the last available surveys for a given variable. This method is problematic for at least two reasons. First, by excluding all intermediate time points, researchers lose information concerning a country's variation of opinions over time. Moreover, this method treats obtained figures as exact estimates of opinion change, ignoring a substantial degree of uncertainty (error) that they actually bear.

To overcome this problem, we used a multilevel research design (Hox, 2010). More specifically, we treated observations (country–years) as nested within countries, making it possible to estimate and predict religious change as the country-specific effect of time on religiosity taking into account all available data points and related variance (uncertainty). Consider the following model. Suppose observations (country–years) in the data are indexed $i = 1, \dots, J$ and countries are indexed $j = 1, \dots, I$. Then, the model for societal religiosity can be written as follows:

$$(\text{religiosity})_{ij} = \beta_{0j} + \beta_{1j}(\text{time})_{ij} + \varepsilon_{ij}, \quad (1)$$

where β_{0j} is country-specific intercept, β_{1j} is country-specific time effect, and ε_{ij} is observation-specific error. Each country-specific intercept (i.e., overall level of religiosity in a country) can be predicted using the following expression:

$$\beta_{0j} = \gamma_{00} + \gamma_{01}(\text{security})_j + [\text{controls}]_{0j} + u_{0j}, \quad (2)$$

where u_{0j} is (random) residual error term for intercept on the country level. Control variables are collapsed in these equations and their coefficients are omitted for space considerations. Country-specific time effect (i.e., religious change in a country) can be predicted in a similar way:

$$\beta_{1j} = \gamma_{01} + \gamma_{11}(\text{security})_j + [\text{controls}]_{1j} + u_{1j}, \quad (3)$$

where u_{1j} is (random) residual error term for time effect on the country level. Equations 1, 2, and 3 can be combined into a single complex expression:

$$(\text{religiosity})_{ij} = \gamma_{00} + \gamma_{01}(\text{security})_j + [\text{controls}]_{0j} + u_{0j} + \gamma_{01}(\text{time})_{ij} + \gamma_{11}(\text{security})_j(\text{time})_{ij} + [\text{controls}]_{1j}(\text{time})_{ij} + u_{1j}(\text{time})_{ij} + \varepsilon_{hij}. \quad (4)$$

This presentation of the model shows that effects of country-level predictors on time trend (religious change) can be estimated as respective cross-level interactions with the time variable.

The data manipulations and statistical analyses reported in the paper were performed using Stata software. The figures were produced using an add-on package by Jann (2014).

Results

Table 3 presents results of two multilevel models, using respectively GDP per capita (Model 1) and infant mortality (Model 2) as indicators of human security. Since the interpretation of effects is not straightforward, it is discussed here in detail. The effect of time should be interpreted as estimated religious change from 1981 to 2014 in a country that scored zero on all national-level predictors (i.e.,

in a Catholic country with the lowest level of human security that was not ruled by a communist government after WWII). Direct effects of country-level variables–-human security, religious zone, and experience of communist rule–-should be attributed to the beginning of the studied period, i.e. early 1980s. Finally, interactions with time show estimated differences in religious change from the baseline depending on country characteristics.

Table 3. Results of multilevel regression models

	Model 1	Model 2
Time	-3.11	-1.49
	(5.45)	(3.63)
Human security		
Log GDP per capita (PPP)	-37.9***	
	(8.55)	
Reversed infant mortality		-28.7***
		(6.48)
Communist rule after WWII	-20.5***	-18.4***
	(3.49)	(3.36)
Cultural zone (Catholic = ref.)		
Protestant	-10.1**	-10.5**
	(3.68)	(3.28)
Orthodox	-12.1**	-12.1**
	(4.50)	(4.43)
Muslim	-2.08	0.08
	(5.75)	(5.52)
Eastern	-27.2***	-23.9***
	(4.98)	(4.80)
Time × GDP per capita	-6.80	
	(6.51)	
Time × Infant mortality		-10.1*
		(4.60)
Time × Communist rule after WWII	6.83*	6.80*
	(2.86)	(2.68)
Time × Cultural zone (Catholic = ref.)		
Time × Protestant	0.42	1.05
	(2.38)	(2.22)
Time × Orthodox	24.1***	23.5***
	(3.89)	(3.77)
Time × Muslim	5.82	3.78
	(4.96)	(4.73)
Time × Eastern	7.44*	7.98*
	(3.55)	(3.27)
Random effects [a]		
Time	3.63	2.77
	(1.13)	(1.34)
Constant	9.13	8.95
	(0.86)	(0.83)
Residual	3.44	3.47
	(0.18)	(0.18)

Note. Standard errors in parentheses.
[a] As standard deviations.
*** $p < .001$, ** $p < .01$, * $p < .05$ (fixed effects only)

An important finding that needs to be addressed concerns the different results for the two indicators of human security. It can be seen that both GDP per capita and infant mortality demonstrated strong and significant effects on country levels of religiosity in the expected direction:

more secure societies were less religious. However, only infant mortality produced a significant interaction with time meaning that it was related to religious change whereas GDP per capita was not. A possible interpretation for this finding concerns various difficulties associated with calculation of GDP figures–-in other words, with potential measurement error. However, there are also theoretically relevant considerations making infant mortality a better indicator of human security. By taking into account a broader set of factors affecting human security beside national wealth it has a better fit with the version of modernization theory used here. Consequently, we use infant mortality as our indicator of human security in the following discussion.

The baseline effect of time was found to be negative: religion tends to decline over time. Nevertheless, certain factors were found to slow down or even reverse the process of secularization. The first was a significant interaction between infant mortality and time, which could be interpreted as a potential for religious growth in less secure societies. However, comparison in magnitudes with the baseline effects of time indicated that low levels of human security alone could only slow down or stop the process of secularization–-but not produce sizeable religious growth on its own. In interpreting this finding, it is necessary to account for a "ceiling effect": the most insecure societies were already so highly religious in the 1980s that further growth in religiosity was not possible. This did not apply to postcommunist societies. The experience of communist rule after WWII showed positive and significant interactions with time, i.e. more religious growth compared to the baseline. And a significant positive effect of Orthodox Christianity on religious change stood out in the model. This effect did not disappear when we controlled for human insecurity and/or postcommunist growth of religiosity.

Figure 1 presents the major findings of the study in graphical format by comparing religious change in societies with and without experience of communist rule after WWII. It shows that, in 1980, emphasis on religion was shaped by two major factors: first, countries with high levels of human security were less religious than insecure ones; and, second, countries ruled by communist regimes were substantially less religious than the others. But religious change during the last 30 years affected these two gaps in religiosity differently. The resurgence of religiosity in the postcommunist societies since 1990 has made the religious divide between the former communist countries and the rest of the world shrink considerably. But the gap between secure and insecure societies has increased markedly since the 1980s.

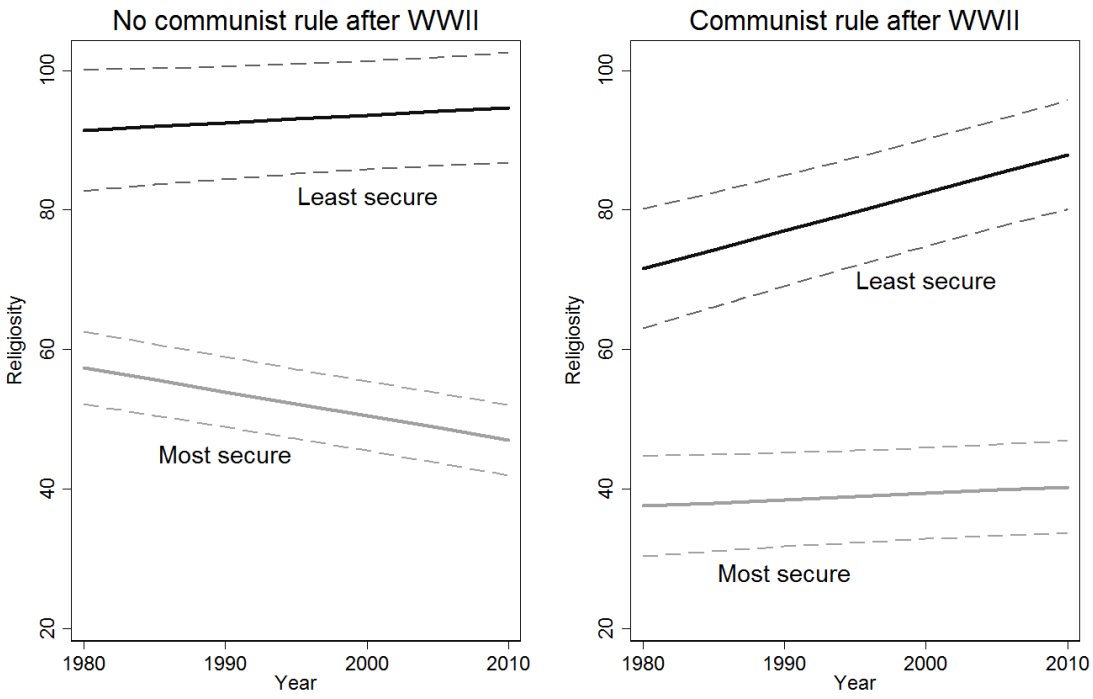

Figure 1. Human security, communist rule after WWII, and religious change, 1980–2010.
Most secure = approximately, 4 deaths of children under one year of age per 1000 live births
Least secure = approximately, 126 deaths of children under one year of age per 1000 live births
Religiosity measured via the 4-item index

In both communist and non-communist countries, emphasis on religion increased in relatively insecure societies, and in most of the world, religiosity declined in relatively secure societies. The collapse of communism left an ideological vacuum that was partly filled by growing emphasis on religion. However, even in the ex-communist countries, the extent to which this occurred was strongly influenced by human security: religiosity rose sharply in the less secure societies—but only slightly in relatively secure ones. The net result was that during this 30-year period, the gap in religiosity between secure and insecure countries increased markedly. More than ever, whether a country was religious or secular reflected its level of security.

Discussion

This study was designed to test the hypothesis that a society's level of security shapes trends in religiosity over time, with relatively high levels of security being linked with downward trends in religiosity, and insecurity being linked with rising emphasis on religion. We tested this hypothesis against survey data from 65 countries, over the time span from 1981 to 2014. In order to cope with possible error in the survey estimates of religious change, we applied a method based on a multilevel analysis technique that used all possible information on intermediate religious change within countries. The answer to our research question was a definite "yes:" High levels of human security were significantly related to both low levels of religiosity and downward trends in religiosity.

Our findings support the revised version of modernization theory in two important aspects. First, we demonstrate that human security seems to affect religiosity across time as well as space. Second, our analysis demonstrates that secularization is not something that occurs automatically as time passes (perhaps due to the spread of scientific knowledge). Instead, secularization is conditional on high levels of human security. Insecure societies showed no decline in religiosity the past 30 years––they actually became more religious. Within the revised modernization theory framework, both effects are likely explained by generational replacement whereby cohorts socialized in late 1980s and early 1990s came to maturity during the analyzed years.

An important finding concerns measurement of human security. Our results demonstrated that, although both GDP per capita and infant mortality were significantly associated with levels of religiosity, infant mortality was a better predictor of religious change. This finding can have two interpretations. First, it can be produced by measurement error. GDP can be determined in three ways, namely production, income, and expenditure approaches (we used the latter in the analysis). Different approaches usually do not coincide indicating potential errors in calculations that are usually based on figures provided by national statistical agencies. However, the infant mortality figures are also subject to measurement error related to quality of registration system and reporting practices (e.g., Anthopolos and Becker, 2010). Therefore, we believe that the second explanation is more likely: infant mortality better corresponds to the multidimensional concept of human security. The updated version of modernization theory emphasizes non-economic components of human security that are often missed from the national wealth indicators, such as GDP per capita. Infant mortality, in turn, incorporates such aspects of life standards as public health and welfare provision more generally (e.g., Ross, 2006), making it a theoretically more suitable measure of human security.

Another important finding that has previously received little attention in the literature concerns the growing religious gap in the world. Even in early 1980s, one could observe substantial differences in emphasis on religion between secure and insecure societies. But by 2010, this global religious divide had significantly increased, as most secure societies experienced a decline of organized religion while religiosity increased in less secure ones. As a result, the differences in religiosity between more and less developed societies are even greater than they were three decades ago. It has been convincingly demonstrated that religiosity is related to a number of important social attitudes, including life satisfaction (Eichhorn, 2012), redistribution (Stegmueller et al., 2012), and moral views (Halman and Van Ingen, 2015), among others. Therefore, religious divide can contribute to a growing value gap between more and less economically developed countries.

Finally, one of the findings reported in the present paper offers potential opportunities for future research. We found that societies where Orthodox Christianity was the dominant religion experienced a pronounced religious revival in the last three decades, which persists even when we

control for human security and the experience of communist rule. A potential theoretical mechanism that might explain the effect of Orthodox Christianity on religious revival is a growing interrelationship between religion and identity politics in Eastern Europe (cf. Voicu, 2012). Future studies might address this question through focused research on the potential fusion of religious and national/ethnic identities in Orthodox Christian countries.

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