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Happiness and Religion

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Happiness and Religion^{*}

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Abstract

We use four waves of the European Social Survey, covering 2000 to 2008, to analyze the effect of religion on happiness. Our findings confirm that religious individuals are generally happier than non-religious ones. When we seek to disentangle the effects of belonging to an organized religion from the effect of holding religious beliefs, we find that the former lowers happiness while the latter raises it. We interpret this as evidence that the tangible aspects of religion (such as abiding by restrictions on consumption and behavior) decrease happiness while the spiritual aspects increase it. We also find important differences among members of different religious denominations, and between men and women, with females more adversely affected by the tangible aspects of belonging to a religion.

Keywords: religion, happiness.

JEL Codes: I31, Z12

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1 Introduction

Although there are many empirical studies that examine the relationship between happiness (or subjective wellbeing) and various economic indicators,¹ relatively few focus on the effects of religion on happiness.² Those that do tend to find a robustly positive effect (see, for example, Deaton and Stone, 2013, and the references therein).³ Clark and Lelkes (2009) and Dehejia et al. (2005) find that being a member of a religion not only increases overall happiness but it also serves to protect believers against adverse shocks such as a drop in income or incidence of unemployment. Moreover, Clark and Lelkes (2009) find that the positive effect of religion is not limited to the believers: the reported happiness of religious and non-religious people alike is positively correlated with the average religious activity in the respondents' region. Mookerjee and Beron (2005) consider the role of religious fragmentation and find that higher levels of religious diversity decrease the level of happiness. Finally, Campante and Yanagizawa-Drott (2013) show that even costly religious sacrifices, such as fasting during the Ramadan, can raise subjective well-being.

In this paper, we seek to decompose the effect of religion on happiness into two components: the benefits – both material and spiritual – and the costs, in particular the need to comply with the various rules and restrictions imposed by religion. On the side of the benefits, being a member of a religion yields a range of tangible benefits, such as social contacts (including access to potential spouses and matchmaking), emotional and material support in times of need, dispute resolution, as well as immaterial and spiritual benefits such the prospect of eternal life in heaven, favorable reincarnation and the like.

Religious membership is also costly as religions typically bring with them complex rules such as basic tenets of one's behavior (for example the Ten Commandments in Christianity or the hadith in Islam), restrictions on what foods one can eat, what constitutes acceptable clothing, under what circumstances men and women can meet, which aspects of modern technology can be embraced, and even invasive and painful actions and body modifications such as self-flagellation or male and female genital circumcision (mutilation). Berman (2000) explains such restrictions by likening religions to clubs that offer benefits (club goods) and require costly sacrifices (membership dues) to prevent freeriding.

However, while the tangible benefits of religion may have been important in the past, they have lost much of their importance in modern societies with well-functioning secular institutions providing the legal system, health care, redistributive transfers, counseling, and the like. Furthermore, modern science increasingly undermines also the immaterial benefits of religion. As the relative benefits of being a member of a religion decline, the relative cost of complying with religious restrictions should rise. At the same time, the rising complexity of

¹ See for example Di Tella et al. (2001) for inflation and unemployment, Clark et al. (2001) for labor market outcomes, Easterlin (1995, 2001) for income and Oswald (1997) for economic performance. For literature review, see Dolan et al. (2008)

² Most of the early empirical analyses on the impact of the religion on happiness have been done by psychologists: see Diener et al. (1999) for a literature review.

³ Other studies that find a positive effect of religion on happiness in a broad range of countries and contexts include Soydemir et al. (2004), Mochon et al. (2008), Tao (2008), Lelkes (2006), Easterlin (2009), Florea and Caudill (2014), and Popova (2014).

modern societies and the rapidly growing range of consumption options make complying with religious prescriptions increasingly costly or even ambiguous⁴. Therefore, it is reasonable to expect religion to play less of a role in people's lives. Indeed, Paldam and Grundlach (2010) hypothesize an inverse relationship between religiosity and the level of economic development, which they confirm using World Values Survey data for a broad range of countries.

In our analysis, we use the first four waves of the European Social Survey (ESS), collected between 2000 and 2008, to address these issues. These surveys allow us to control for membership in a broad range of major religions: given that the benefits and restrictions associated with different religions are not the same, it is reasonable to expect their effect on happiness not to be the same. In addition to religious membership, we also control for the intensity of religious devotion, which we interpret as a proxy for the immaterial aspects of religion, and participation in religious activities. Our results suggest that, when controlling for religious affiliation, membership in most major religions is associated with significantly greater happiness after controlling for a broad range of individual-level characteristics. When we add religiosity and allow its effect to vary across religions, a striking result emerges: religious membership lowers happiness but this is countered by a positive effect of religiosity. We interpret the effect of religious membership as capturing the tangible aspects of religion (both costs and benefits) while religiosity reflects the immaterial aspects. Our results therefore suggest that membership in a religion is costly but this is compensated by the spiritual and immaterial benefits for those who are sufficiently devoted. We also observe important differences across religions in this respect. Finally, when we replace religiosity by the frequency of praying, this dichotomous pattern disappears, suggesting that it is really the intensity of beliefs and not participation in religious activities that increases happiness.

Bjørnskov et al. (2008), Clark and Lelkes (2009) and others have considered the differences across religious denominations in their impact on happiness. Deaton and Stone (2013), in turn, consider religiosity rather than membership of a religion, which in their analysis is a dichotomous variable (yes/no answer to a question whether religion plays an important role in one's life). Our religiosity variables measure the intensity of beliefs on a 0-10 scale, thus allowing for much greater differentiation in the degree of religious devotion. Furthermore, to the best of our knowledge, we are the first to control for religious membership and intensity of religiosity at the same time, while allowing for differences across religious denominations, so as to differentiate between the material (tangible) and spiritual aspects of religion.

The rest of the paper is organized as follows: In section 2, we introduce our data set and the variables we use in the empirical analysis. In section 3, we discuss our empirical results and in the last section, we summarize and discuss our findings.

⁴ For example, most Old World religions do not ban tobacco because it was only introduced from the Americas relatively late, long after those religions formulated their religious restrictions. Given its addictive properties and harmful health effects, it would be reasonable to expect at least some religions to ban the use of tobacco if they were to revise their rules or formulate them anew.

2 Data

The analysis is based on the first four waves of the European Social Survey (ESS henceforth) carried out every two years between 2000 and 2008 in 30 countries in Europe and its neighborhood: besides the EU/EEA countries, Turkey, Russia and Israel are also included. While the surveys are carried out in the same countries repeatedly, the data takes the form of repeated cross-sections rather than a panel. The dependent variable collects the respondents' responses to a standard happiness question:

“Taking all things together, how happy would you say you are?”

The answers are coded between 0 (extremely unhappy) and 10 (extremely happy). Religiosity is measured by a question on the intensity of respondents' devotion, coded also between 0 (not at all religious) and 10 (very religious). We also consider participation in religious activities, which we measure by how often respondents pray, ranging between 1 (every day) and 7 (never). As for membership in major religious denominations, we have information whether the respondents are Roman Catholic, Protestant, Eastern Orthodox, other Christian, Jewish, Islamic, Eastern, or belong to any other (non-Christian) religions. The basic statistics for all countries and for all four waves are summarized in Table 1.

A non-negligible share of respondents in virtually every country declared no religious denomination (with the exceptions of Turkey, Greece, Poland and Israel in which more than 90% of respondents identify with a religion). The share of unaffiliated respondents is reported also in Table 1 in the column denoted as None. In a number of countries (France, Sweden, the UK, the Czech Republic, and Estonia), more than two-thirds of respondents report no religious denomination. While we do not know for sure what it means when a respondent fails to report a religious affiliation, we interpret this as an indication that these respondents are not very religious and that they are unlikely to comply with religious restrictions. Indeed, the five countries with especially high shares of non-affiliated respondents all have average religiosity below 4.⁵

The last column reports the average happiness. The happiest place in Europe is Denmark while the gloomiest country is Bulgaria. Turkey wins on religiosity and the least God-fearing place in Europe is the Czech Republic.

3 Does Religion Raise Happiness?

Since the dependent variable, happiness, takes values from 0 to 10 (with increasing values representing more happiness), we use ordered logit to study the determinants of happiness. We control for a broad range of individual socio-economic characteristics: gender (we also

⁵ 29 percent of respondents without a religious denomination report their religiosity to be 0, the median religiosity is 3 and only 1 percent reports the highest possible value, 10. Among respondents belonging to a religion, 2 percent say they are not at all religious (reporting 0), the median is 6 and 9 percent report being very religious (10 out of 10). Similarly, 7 percent of respondents without a religious denomination say they pray every day while 64 percent never pray. Among those with a religious denomination, 34 percent pray every day and 15 percent never.

estimate separate regressions for males and females to allow the individual variables to have gender-specific effect on happiness), age, education, household composition and marital status, degree of urbanization, relative income⁶ and labor-market status, in addition to religiosity and religious denomination. The regression results for this baseline specification are reported in Table 2, with country and ESS-wave effects included but not reported.

Our regressions reproduce a number of well-known findings. Men are less happy than women. Education increases happiness (even after controlling for relative income and labor-market status). The effect of age is non-linear, with middle-aged individuals being less happy than either young or old ones. Having a larger household increases happiness but children reduce it (after controlling for household size). Married individuals are happier. Rural residents are happier than urban folks. Being well-off gives a powerful boost to happiness. Finally, students are generally happy whereas the unemployed, sick/disabled and retirees are unhappy. As for belonging to an organized religion, we identify happiness-boosting effects for all religions except the Eastern Orthodox. These results suggest that religious people are significantly happier than non-religious individuals.

Considering men and women separately reveals a few gender-specific differences. The positive effect of education is more than double that for women as for men. The same goes for the (negative) effect of having children. Women's happiness is also more affected by relative income. As for religion, Jewish and Muslim women gain substantially more from belonging to a religion than males.

Our main results are presented in Table 3 where we add religiosity, both as a stand-alone determinant of happiness and interacted with the various religious denominations. The regressions include the same broad range of socio-economic characteristics as in Table 2, but to save space, we are not reporting these (the estimated coefficients are very similar to those in Table 2). As we argued above, this allows us to distinguish between the material and spiritual aspects of religion, the former captured by membership of a religion while the latter are measured by the intensity of religious beliefs. The effect of adding religiosity is striking: belonging to a religion now reduces rather than increases happiness, significantly so for Protestants, Roman Catholics, Eastern Orthodox and Muslims. This is countered by happiness-boosting effect of religiosity: on its own and also through the interaction terms. In other words, being a member of a religion appears to lower happiness (possibly because of the restrictions on behavior and consumption); the increased happiness stems from religious devotion rather than from membership in a religion itself. Moreover, the happiness-boosting effect of religious devotion is not the same across the various religions, as the significant coefficients of the interaction terms demonstrate.

One way to assess the counteracting effects of religious affiliation and religiosity is to consider how religious a person has to be so that religion has no effect on happiness.⁷ Since

⁶ Rather than use absolute income, which is difficult to compare across countries at different level of economic development due to differences in purchasing power, we use the question asking the respondents how well they are faring with their income, ranging from being comfortable to finding it very difficult to cope.

⁷ For this, we divide the coefficient for religious denomination (in absolute value) by the sum of the coefficient on the interaction effect and that of religiosity on its own). For example, for Roman Catholics, the calculation is $0.30224/(0.055686+0.042264)=3.08$.

the reference category is individuals who report no religious denomination, this exercise will yield the level of religiosity when a member of a particular religion is as happy as a person without a declared religion. For Roman Catholics, this zero-happiness religiosity is 3.1 when taking all respondents together, 2.7 for men and 3.7 for women (recall that religiosity takes values from 0 to 10). Protestants are even better off: 1.4 overall, 0.7 for men and 2 for women. For Eastern Orthodox, the zero-happiness point is higher: 4 overall, 3.6 for men and 4.6 for women; 2.6 for other Christians (1.3 for men and 3.7 for women); 0.9 for Jews (2.2 for men and 0.1 for women); and 4.3 for Muslims (4.6 for men and 4.3 for women). Hence, while for some religious denominations, even a mildly religious person can experience no negative effect on happiness, for others one must be at least moderately religious.

In Table 4, we replace religiosity with an indicator how often the respondent prays: note that increasing values of this variable indicate praying less often. Again, socio-economic characteristics of the respondents are included but not reported. The effects of religious denominations now appear mixed: some are positive while others are negative or insignificant. Hence, adding the frequency of religious activities does not have the same effect as controlling for the intensity of religious beliefs. This is possibly because the frequency of praying is one of the restrictions imposed by some religions and, as such, need not reflect the intensity of religious beliefs. Furthermore, most of the interaction terms are insignificant. The coefficient on praying is strongly significant: the negative sign implies that praying more often increases happiness. The fact that most of the interaction terms are insignificant, however, suggests that the effect of praying on happiness is largely uniform across all religions.

Next, we present a number of robustness checks. In Tables 5-7, we replace the indicator of happiness (which takes values between 0 and 10) with a dummy variable equal to one if the respondent reports happiness level of 9 or 10 and zero otherwise. This means that we only consider the very happy respondents. An additional advantage is that this allows us to report marginal effects, unlike in the previous Tables. Table 5 presents the results with only religious denominations, Table 6 adds religiosity and Table 7 adds praying. The results are qualitatively very similar to those reported above. Finally, in Tables 8-10, we estimate the regressions using OLS rather than logit or ordered logit. While this is not an appropriate method to analyze categorical variables, the dependent variable is close to being continuous, taking 11 different values (0-10). Again, a useful byproduct of using this technique is that we can compare the magnitude of the various effects more easily. The results are once more very similar to those in Tables 2-4.

5 Conclusions

Our results confirm the previous finding that religion increases happiness. In our analysis, we seek to disentangle the tangible aspects of membership in an organized religion from the more abstract effects of religiosity: the former reflecting the club goods provided by religious congregations as well as the various religious restrictions while the latter being essentially spiritual. When doing so, we find that religious membership without religious devotion lower

happiness. It is the spiritual and belief-based aspect of religion, as captured by the intensity of religious attachment, which raises happiness. Differences between men and women are non-negligible, with women being both more negatively affected by religious membership and gaining more due to religiosity. Differences across religious denominations are important too. In contrast, although praying frequently also raises happiness, this effect does not vary much across the various religions.

Hence, belonging to a religion and abiding by its rules is costly. Religious people's happiness stems from the intensity of their beliefs, not from tangible benefits associated with religious membership.

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Table 1 Religiosity and Happiness in Europe

Variable [Scale]	Roman Catholic	Protestant	Eastern Orthodox	Other Christian	Jewish	Islamic	Eastern religions	Other	None	Religious [0-10]	Pray [1-7]	Happy [0-10]
Austria	62.1%	3.4%	0.7%	1.1%	0.1%	1.3%	0.9%	0.3%	30.1%	5.10	4.35	7.5
Belgium	39.0%	0.7%	0.3%	0.8%	0.1%	3.0%	0.3%	0.4%	55.4%	4.80	5.22	7.7
Bulgaria	0.3%	0.5%	50.3%	0.6%	0.0%	10.9%	0.0%	0.1%	37.2%	4.33	5.09	5.3
Switzerland	31.6%	30.1%	0.9%	1.1%	0.1%	2.4%	0.8%	0.4%	32.4%	5.28	4.06	8.0
Cyprus	0.5%	0.0%	69.0%	0.2%	0.0%	0.1%	0.1%	0.1%	30.2%	6.89	2.85	7.5
Czech Rep.	23.1%	1.9%	0.1%	0.9%	0.0%	0.0%	0.1%	0.3%	73.5%	2.65	6.03	6.7
Germany	22.3%	27.8%	0.6%	1.5%	0.1%	2.0%	0.4%	0.1%	45.1%	3.91	5.17	7.2
Denmark	1.0%	56.2%	0.1%	0.8%	0.1%	1.5%	0.3%	0.3%	39.6%	4.23	5.63	8.3
Estonia	0.5%	7.6%	14.1%	1.2%	0.1%	0.2%	0.0%	0.2%	76.0%	3.55	5.94	6.6
Spain	68.4%	0.4%	0.7%	1.0%	0.0%	1.5%	0.1%	0.2%	27.8%	4.49	4.60	7.5
Finland	0.1%	49.2%	0.9%	0.8%	0.0%	0.1%	0.1%	0.1%	48.7%	5.32	4.56	8.0
France	26.6%	1.0%	0.1%	0.5%	0.3%	2.1%	0.1%	0.2%	69.1%	3.70	5.45	7.1
UK	5.6%	19.5%	0.1%	1.0%	0.2%	1.4%	0.9%	0.3%	71.1%	4.17	4.90	7.4
Greece	0.8%	0.3%	89.5%	0.2%	0.0%	1.9%	0.1%	0.1%	7.2%	6.87	2.78	6.5
Croatia	75.4%	0.2%	3.8%	0.5%	0.0%	0.3%	0.1%	0.1%	19.6%	6.14	3.29	6.7
Hungary	34.6%	12.7%	0.0%	1.2%	0.1%	0.0%	0.1%	0.1%	51.2%	4.33	4.81	6.3
Ireland	76.5%	2.8%	0.2%	1.1%	0.0%	0.4%	0.2%	0.1%	18.6%	5.52	2.85	7.6
Israel	2.1%	0.1%	0.5%	0.2%	72.5%	14.3%	0.1%	1.0%	9.3%	4.82	4.65	7.4
Italy	78.0%	0.4%	0.1%	0.4%	0.0%	0.1%	0.1%	0.1%	20.8%	6.06	3.71	6.3
Luxembourg	51.9%	0.9%	0.5%	16.1%	0.1%	1.6%	0.4%	0.4%	28.0%	4.29	5.12	7.8
Netherlands	20.1%	16.4%	0.2%	2.9%	0.1%	2.0%	0.6%	0.3%	57.4%	4.94	4.83	7.7
Norway	1.3%	47.9%	0.3%	1.7%	0.0%	1.3%	0.4%	0.8%	46.2%	3.92	5.43	7.9
Poland	90.6%	0.4%	0.5%	0.6%	0.0%	0.1%	0.0%	0.0%	7.8%	6.43	2.68	6.9
Portugal	83.5%	0.8%	0.2%	1.9%	0.1%	0.1%	0.2%	0.1%	13.2%	5.69	3.36	6.5
Russia	0.3%	0.2%	48.4%	0.2%	0.1%	5.5%	0.1%	0.0%	45.2%	4.47	4.99	6.0
Sweden	1.1%	26.1%	0.5%	1.2%	0.1%	1.4%	0.3%	0.2%	69.0%	3.54	5.78	7.9
Slovenia	50.2%	0.9%	1.3%	0.3%	0.0%	1.0%	0.1%	0.1%	46.2%	4.75	4.99	7.2
Slovakia	63.5%	7.8%	0.7%	5.2%	0.1%	0.1%	0.1%	0.2%	22.4%	5.96	3.74	6.5
Turkey	0.0%	0.0%	0.0%	0.0%	0.0%	96.1%	0.0%	1.1%	2.7%	7.07	1.79	6.0
Ukraine	8.2%	1.4%	60.0%	1.5%	0.0%	0.5%	0.1%	0.5%	27.8%	5.16	3.80	5.5
Average	29.6%	12.6%	10.2%	1.3%	2.3%	3.6%	0.3%	0.3%	39.8%	4.82	4.51	7.1

Notes: The answers to the questions on generalized trust, perceived fairness and helpfulness (columns 1-3) range between 0 and 10. Meeting people socially takes values 1 through 7. Having someone to discuss personal/intimate matters takes values 0 and 1. Participating in social activities takes values 1 through 5. Higher values always indicate higher stock of social capital. Religiosity ranges from Not at all religious (0) to Very religious (10). Praying ranges from Every day (1) to Never (7).

Table 2 Religion and Happiness: ordered logit

Variables	All	Males	Females
Male	-0.1302*** (0.0091)		
Age	-0.05606*** (0.0016)	-0.06423*** (0.0025)	-0.04977*** (0.0022)
Age sqrd	0.000476*** (0.0000)	0.000555*** (0.0000)	0.000412*** (0.0000)
Education years	0.012345*** (0.0013)	0.007303*** (0.0018)	0.015556*** (0.0018)
Household size	0.039875*** (0.0043)	0.039898*** (0.0062)	0.039645*** (0.0059)
Children (dummy)	-0.04542*** (0.0123)	-0.03951** (0.0191)	-0.06664*** (0.0163)
Married/cohabitating	0.640778*** (0.0109)	0.730828*** (0.0175)	0.559753*** (0.0145)
Suburb of city ⁽¹⁾	-0.03134* (0.0161)	-0.03087 (0.0237)	-0.03488 (0.0218)
Town ⁽¹⁾	0.018864 (0.0126)	0.017407 (0.0189)	0.016346 (0.0170)
Village ⁽¹⁾	0.061427*** (0.0129)	0.07757*** (0.0192)	0.046836*** (0.0174)
Farm/countryside ⁽¹⁾	0.110451*** (0.0213)	0.133829*** (0.0307)	0.095133*** (0.0299)
Income: coping ⁽²⁾	-0.47535*** (0.0110)	-0.50669*** (0.0158)	-0.45724*** (0.0153)
Income: difficult ⁽²⁾	-1.11935*** (0.0149)	-1.15606*** (0.0223)	-1.09804*** (0.0201)
Income: v. difficult ⁽²⁾	-1.81038*** (0.0214)	-1.90935*** (0.0338)	-1.74006*** (0.0279)
Paid work ⁽³⁾	-0.03811*** (0.0148)	0.05047* (0.0277)	-0.09597*** (0.0184)
Student ⁽³⁾	0.181319*** (0.0200)	0.277164*** (0.0320)	0.101601*** (0.0267)
Unemployed ⁽³⁾	-0.38571*** (0.0260)	-0.41158*** (0.0407)	-0.32436*** (0.0356)
Inactive ⁽³⁾	-0.27345*** (0.0334)	-0.26756*** (0.0533)	-0.24929*** (0.0436)
Sick/disabled ⁽³⁾	-0.57207*** (0.0278)	-0.50233*** (0.0430)	-0.61936*** (0.0372)
Retired ⁽³⁾	-0.00721 (0.0190)	0.063356* (0.0333)	-0.0641*** (0.0243)
Homeworker ⁽³⁾	0.073006*** (0.0121)	0.070782*** (0.0221)	0.083989*** (0.0151)
Roman Catholic ⁽⁴⁾	0.141687*** (0.0129)	0.181401*** (0.0188)	0.11059*** (0.0178)
Protestant ⁽⁴⁾	0.193347*** (0.0148)	0.194028*** (0.0218)	0.182532*** (0.0201)
East Orthodox ⁽⁴⁾	-0.02894 (0.0244)	0.040285 (0.0378)	-0.06807** (0.0323)
Other Christian ⁽⁴⁾	0.249879*** (0.0387)	0.321205*** (0.0584)	0.189769*** (0.0518)
Jewish ⁽⁴⁾	0.231532*** (0.0589)	0.10846 (0.0862)	0.326169*** (0.0809)
Muslim ⁽⁴⁾	0.204344*** (0.0385)	0.152294*** (0.0537)	0.242279*** (0.0558)
Foreign born	-0.05245*** (0.0167)	0.002987 (0.0253)	-0.09593*** (0.0223)
Ethnic minority	-0.12348*** (0.0220)	-0.15419*** (0.0321)	-0.09827*** (0.0302)

Standard errors in parentheses. Significance: ***p<0.01; **p<0.05; *p<0.10. Omitted categories: (1) Resident in big city; (2) comfortable with current income; (3) last 7 days any other activity; and (4) no religious affiliation or other non-Christian affiliation.

Table 3 Religiosity and Happiness: ordered logit

Variables	All	Males	Females
Individual Controls	YES	YES	YES
Roman Catholic ⁽⁴⁾	-0.30224*** (0.0260)	-0.2602*** (0.0368)	-0.39136*** (0.0372)
Protestant ⁽⁴⁾	-0.11753*** (0.0321)	-0.04722 (0.0443)	-0.18244*** (0.0473)
East Orthodox ⁽⁴⁾	-0.32665*** (0.0478)	-0.32238*** (0.0705)	-0.38827*** (0.0660)
Other Christian ⁽⁴⁾	-0.22573** (0.1084)	-0.10633 (0.1531)	-0.36959** (0.1550)
Jewish ⁽⁴⁾	-0.07145 (0.0786)	-0.16804 (0.1172)	0.007617 (0.1065)
Muslim ⁽⁴⁾	-0.67239*** (0.0806)	-0.6822*** (0.1081)	-0.69608*** (0.1226)
Roman Catholic*R ⁽⁵⁾	0.055686*** (0.0043)	0.061293*** (0.0065)	0.062125*** (0.0060)
Protestant*R ⁽⁵⁾	0.040733*** (0.0055)	0.032749*** (0.0081)	0.047246*** (0.0077)
East Orthodox*R ⁽⁵⁾	0.038494*** (0.0073)	0.054914*** (0.0113)	0.04072*** (0.0097)
Other Christian*R ⁽⁵⁾	0.045605*** (0.0148)	0.044144** (0.0218)	0.054942*** (0.0205)
Jewish*R ⁽⁵⁾	0.041646*** (0.0112)	0.038931** (0.0174)	0.045242*** (0.0145)
Muslim*R ⁽⁵⁾	0.113159*** (0.0110)	0.113268*** (0.0152)	0.118462*** (0.0162)
Religiosity (R)	0.042264*** (0.0025)	0.035709*** (0.0037)	0.043844*** (0.0035)

Standard errors in parentheses. Significance: ***p<0.01; **p<0.05; *p<0.10. Omitted categories: (1) Resident in big city; (2) comfortable with current income; (3) last 7 days any other activity; and (4) no religious affiliation or other non-Christian affiliation. (5) Interactions terms involving religious denomination and religiosity.

Table 4 Pray and Happiness: ordered logit

Variables	All	Males	Females
Individual Controls	YES	YES	YES
Roman Catholic ⁽⁴⁾	0.052841* (0.0291)	0.135342*** (0.0501)	0.049935 (0.0362)
Protestant ⁽⁴⁾	0.145429*** (0.0336)	0.125054** (0.0587)	0.146224*** (0.0413)
East Orthodox ⁽⁴⁾	-0.17459*** (0.0421)	-0.03507 (0.0742)	-0.18247*** (0.0524)
Other Christian ⁽⁴⁾	0.181232*** (0.0653)	0.265262** (0.1077)	0.159717* (0.0827)
Jewish ⁽⁴⁾	0.480763*** (0.0933)	0.224887 (0.1382)	0.699911*** (0.1275)
Muslim ⁽⁴⁾	0.115803* (0.0600)	0.086141 (0.0874)	0.143069* (0.0842)
Roman Catholic*P ⁽⁵⁾	0.002003 (0.0052)	-0.00867 (0.0084)	-0.00329 (0.0069)
Protestant*P ⁽⁵⁾	-0.0031 (0.0061)	0.001271 (0.0100)	-0.00399 (0.0081)
East Orthodox*P ⁽⁵⁾	0.022463*** (0.0080)	0.004944 (0.0131)	0.016763 (0.0107)
Other Christian*P ⁽⁵⁾	-0.01482 (0.0167)	-0.01898 (0.0244)	-0.02535 (0.0239)
Jewish*P ⁽⁵⁾	-0.06486*** (0.0151)	-0.04136* (0.0229)	-0.08691*** (0.0203)
Muslim*P ⁽⁵⁾	-0.00294 (0.0128)	-0.01566 (0.0181)	0.008793 (0.0183)
Pray (P)	-0.03853*** (0.0039)	-0.04299*** (0.0065)	-0.03151*** (0.0049)

Standard errors in parentheses. Significance: ***p<0.01; **p<0.05; *p<0.10. Omitted categories: (1) Resident in big city; (2) comfortable with current income; (3) last 7 days any other activity; and (4) no religious affiliation or other non-Christian affiliation. (5) Interactions terms involving religious denomination and pray.

Table 5 Religion and Happiness (happiness \geq 9): Logit

Variables	All	Males	Females
Male	-0.03343*** (0.0022)		
Age	-0.01087*** (0.0004)	-0.01189*** (0.0006)	-0.01007*** (0.0005)
Age sqrd	0.000095*** (0.0000)	0.000105*** (0.0000)	8.63E-05*** (0.0000)
Education years	-0.00093*** (0.0003)	-0.00156*** (0.0004)	-0.00059 (0.0004)
Household size	0.006939*** (0.0010)	0.005461*** (0.0015)	0.008154*** (0.0014)
Children (dummy)	-0.0014 (0.0030)	-0.00273 (0.0046)	-0.00268 (0.0041)
Married/cohabitating	0.110419*** (0.0027)	0.120762*** (0.0044)	0.100566*** (0.0037)
Suburb of city ⁽¹⁾	-0.00487 (0.0040)	-0.01026* (0.0058)	-0.00065 (0.0055)
Town ⁽¹⁾	0.005503* (0.0032)	0.004242*** (0.0047)	0.005811 (0.0044)
Village ⁽¹⁾	0.014228*** (0.0032)	0.017455*** (0.0047)	0.010692** (0.0045)
Farm/countryside ⁽¹⁾	0.022897*** (0.0050)	0.020866*** (0.0071)	0.02586*** (0.0070)
Income: coping ⁽²⁾	-0.0931*** (0.0025)	-0.09175*** (0.0036)	-0.09533*** (0.0035)
Income: difficult ⁽²⁾	-0.1668*** (0.0037)	-0.15411*** (0.0055)	-0.17795*** (0.0050)
Income: v. difficult ⁽²⁾	-0.20589*** (0.0059)	-0.19862*** (0.0093)	-0.21214*** (0.0076)
Paid work ⁽³⁾	-0.01491*** (0.0036)	-0.00222 (0.0066)	-0.0233*** (0.0045)
Student ⁽³⁾	0.011303** (0.0047)	0.021952*** (0.0075)	0.002228 (0.0064)
Unemployed ⁽³⁾	-0.04572*** (0.0069)	-0.05069*** (0.0108)	-0.03866*** (0.0093)
Inactive ⁽³⁾	-0.03464*** (0.0088)	-0.01867 (0.0140)	-0.04428*** (0.0116)
Sick/disabled ⁽³⁾	-0.04716*** (0.0074)	-0.02721** (0.0110)	-0.06346*** (0.0101)
Retired ⁽³⁾	0.007335 (0.0047)	0.016364** (0.0081)	-0.00095 (0.0061)
Homeworker ⁽³⁾	0.015536*** (0.0029)	0.013701*** (0.0052)	0.018819*** (0.0037)
Roman Catholic ⁽⁴⁾	0.018261*** (0.0032)	0.022203*** (0.0046)	0.015169*** (0.0044)
Protestant ⁽⁴⁾	0.031896*** (0.0034)	0.032259*** (0.0050)	0.030469*** (0.0047)
East Orthodox ⁽⁴⁾	-0.00212 (0.0069)	0.009142 (0.0102)	-0.00715 (0.0093)
Other Christian ⁽⁴⁾	0.056861*** (0.0089)	0.058636*** (0.0130)	0.055063*** (0.0122)
Jewish ⁽⁴⁾	0.017685 (0.0131)	-0.01466 (0.0189)	0.044729** (0.0183)
Muslim ⁽⁴⁾	0.026786*** (0.0092)	0.012962 (0.0127)	0.037573*** (0.0134)
Foreign born	0.004354 (0.0040)	0.017746*** (0.0059)	-0.00655 (0.0055)
Ethnic minority	-0.00412 (0.0055)	-0.00354 (0.0078)	-0.0049 (0.0077)

Standard errors in parentheses. Significance: ***p<0.01; **p<0.05; *p<0.10. Omitted categories: (1) Resident in big city; (2) comfortable with current income; (3) last 7 days any other activity; and (4) no religious affiliation or other non-Christian affiliation.

Table 6 Religiosity and Happiness (happiness \geq 9): Logit

Variables	All	Males	Females
Individual Controls	YES	YES	YES
Roman Catholic ⁽⁴⁾	-0.07498*** (0.0066)	-0.05794*** (0.0091)	-0.09817*** (0.0096)
Protestant ⁽⁴⁾	-0.03184*** (0.0074)	-0.0259** (0.0101)	-0.03704*** (0.0111)
East Orthodox ⁽⁴⁾	-0.09667*** (0.0144)	-0.07111*** (0.0200)	-0.13355*** (0.0207)
Other Christian ⁽⁴⁾	-0.03158 (0.0245)	-0.04403 (0.0336)	-0.02422 (0.0356)
Jewish ⁽⁴⁾	-0.05405*** (0.0184)	-0.06778** (0.0269)	-0.03836 (0.0253)
Muslim ⁽⁴⁾	-0.1219*** (0.0205)	-0.14509*** (0.0277)	-0.10379*** (0.0305)
Roman Catholic*R ⁽⁵⁾	0.012766*** (0.0011)	0.012237*** (0.0016)	0.014869*** (0.0015)
Protestant*R ⁽⁵⁾	0.009373*** (0.0013)	0.009895*** (0.0018)	0.009076*** (0.0018)
East Orthodox*R ⁽⁵⁾	0.01415*** (0.0021)	0.013258*** (0.0030)	0.018246*** (0.0029)
Other Christian*R ⁽⁵⁾	0.009233*** (0.0033)	0.013023*** (0.0047)	0.007054 (0.0047)
Jewish*R ⁽⁵⁾	0.010376*** (0.0025)	0.008146** (0.0039)	0.011829*** (0.0033)
Muslim*R ⁽⁵⁾	0.018992*** (0.0027)	0.022154*** (0.0037)	0.016832*** (0.0039)
Religiosity (R)	0.006026*** (0.0006)	0.003957*** (0.0009)	0.00717*** (0.0008)

Standard errors in parentheses. Significance: ***p<0.01; **p<0.05; *p<0.10. Omitted categories: (1) Resident in big city; (2) comfortable with current income; (3) last 7 days any other activity; and (4) no religious affiliation or other non-Christian affiliation. (5) Interactions terms involving religious denomination and religiosity.

Table 7 Pray and Happiness (happiness>=9): Logit

Variables	All	Males	Females
Individual Controls	YES	YES	YES
Roman Catholic ⁽⁴⁾	-0.00162 (0.0069)	0.006688 (0.0115)	0.000188 (0.0088)
Protestant ⁽⁴⁾	0.013923* (0.0077)	0.019345 (0.0131)	0.009746 (0.0097)
East Orthodox ⁽⁴⁾	-0.01861* (0.0112)	-0.00257 (0.0185)	-0.01186 (0.0145)
Other Christian ⁽⁴⁾	0.044023*** (0.0147)	0.057017** (0.0232)	0.040316** (0.0193)
Jewish ⁽⁴⁾	0.044634** (0.0200)	-0.00261 (0.0294)	0.087743*** (0.0276)
Muslim ⁽⁴⁾	-0.01324 (0.0142)	-0.03358* (0.0204)	0.007238 (0.0199)
Roman Catholic*P ⁽⁵⁾	0.000184 (0.0013)	-0.00098 (0.0020)	-0.00077 (0.0017)
Protestant*P ⁽⁵⁾	0.000998 (0.0014)	-0.0002 (0.0022)	0.002226 (0.0019)
East Orthodox*P ⁽⁵⁾	0.000314 (0.0022)	-0.0007 (0.0034)	-0.00302 (0.0031)
Other Christian*P ⁽⁵⁾	-0.00458 (0.0038)	-0.00765 (0.0054)	-0.00338 (0.0055)
Jewish*P ⁽⁵⁾	-0.00912*** (0.0033)	-0.00684 (0.0050)	-0.01196*** (0.0044)
Muslim*P ⁽⁵⁾	0.005194* (0.0030)	0.005898 (0.0042)	0.003892 (0.0043)
Pray (P)	-0.00932*** (0.0009)	-0.01007*** (0.0015)	-0.0081*** (0.0012)

Standard errors in parentheses. Significance: ***p<0.01; **p<0.05; *p<0.10. Omitted categories: (1) Resident in big city; (2) comfortable with current income; (3) last 7 days any other activity; and (4) no religious affiliation or other non-Christian affiliation. (5) Interactions terms involving religious denomination and pray.

Table 8: Religion and Happiness: OLS

Variables	All	Males	Females
Male	-0.09737*** (0.0091)		
Age	-0.05339*** (0.0016)	-0.05864*** (0.0024)	-0.04894*** (0.0022)
Age sqrd	0.000446*** (0.0000)	0.000498*** (0.0000)	0.000399*** (0.0000)
Education years	0.017075*** (0.0013)	0.010916*** (0.0018)	0.021516*** (0.0018)
Household size	0.04108*** (0.0042)	0.045259*** (0.0060)	0.0375*** (0.0060)
Children (dummy)	-0.05452*** (0.0123)	-0.055*** (0.0185)	-0.07438*** (0.0167)
Married/cohabitating	0.640213*** (0.0108)	0.707551*** (0.0168)	0.57685*** (0.0147)
Suburb of city ⁽¹⁾	-0.03918** (0.0162)	-0.03331 (0.0232)	-0.04621** (0.0225)
Town ⁽¹⁾	0.009486 (0.0127)	0.008965 (0.0184)	0.006837 (0.0175)
Village ⁽¹⁾	0.04185*** (0.0129)	0.060306*** (0.0186)	0.025839 (0.0179)
Farm/countryside ⁽¹⁾	0.087116*** (0.0216)	0.114661*** (0.0301)	0.067739** (0.0309)
Income: coping ⁽²⁾	-0.41003*** (0.0110)	-0.42818*** (0.0154)	-0.39949*** (0.0158)
Income: difficult ⁽²⁾	-1.08673*** (0.0146)	-1.09958*** (0.0211)	-1.08258*** (0.0203)
Income: v. difficult ⁽²⁾	-1.90225*** (0.0205)	-1.95247*** (0.0312)	-1.86665*** (0.0274)
Paid work ⁽³⁾	-0.01277 (0.0148)	0.072081*** (0.0267)	-0.07044*** (0.0188)
Student ⁽³⁾	0.206793*** (0.0202)	0.2956*** (0.0311)	0.130446*** (0.0277)
Unemployed ⁽³⁾	-0.3855*** (0.0256)	-0.40361*** (0.0388)	-0.32496*** (0.0360)
Inactive ⁽³⁾	-0.26765*** (0.0328)	-0.25923*** (0.0506)	-0.24412*** (0.0442)
Sick/disabled ⁽³⁾	-0.6444*** (0.0268)	-0.57072*** (0.0402)	-0.69369*** (0.0370)
Retired ⁽³⁾	-0.01074 (0.0188)	0.066705** (0.0320)	-0.07321*** (0.0247)
Homeworker ⁽³⁾	0.067345*** (0.0121)	0.063441*** (0.0216)	0.080499*** (0.0155)
Roman Catholic ⁽⁴⁾	0.154361*** (0.0130)	0.186585*** (0.0183)	0.125407*** (0.0183)
Protestant ⁽⁴⁾	0.196893*** (0.0150)	0.199721*** (0.0215)	0.183911*** (0.0209)
East Orthodox ⁽⁴⁾	-0.02889 (0.0243)	0.041864 (0.0364)	-0.07483** (0.0330)
Other Christian ⁽⁴⁾	0.209994*** (0.0382)	0.30245*** (0.0559)	0.131866** (0.0522)
Jewish ⁽⁴⁾	0.242206*** (0.0568)	0.140634* (0.0807)	0.33156*** (0.0801)
Muslim ⁽⁴⁾	0.192673*** (0.0370)	0.149316*** (0.0499)	0.224559*** (0.0548)
Foreign born	-0.06032*** (0.0166)	-0.00577 (0.0242)	-0.10422*** (0.0228)
Ethnic minority	-0.13079*** (0.0215)	-0.15456*** (0.0303)	-0.10898*** (0.0304)

Standard errors in parentheses. Significance: ***p<0.01; **p<0.05; *p<0.10. Omitted categories: (1) Resident in big city; (2) comfortable with current income; (3) last 7 days any other activity; and (4) no religious affiliation or other non-Christian affiliation.

Table 9: Religiosity and Happiness: OLS

Variables	All	Males	Females
Individual Controls	YES	YES	YES
Roman Catholic ⁽⁴⁾	-0.21501*** (0.0257)	-0.18704*** (0.0352)	-0.28755*** (0.0377)
Protestant ⁽⁴⁾	-0.0716** (0.0322)	-0.00772 (0.0431)	-0.13843*** (0.0484)
East Orthodox ⁽⁴⁾	-0.27561*** (0.0470)	-0.25622*** (0.0669)	-0.34989*** (0.0667)
Other Christian ⁽⁴⁾	-0.16815 (0.1033)	0.048954 (0.1418)	-0.41161*** (0.1501)
Jewish ⁽⁴⁾	0.043265 (0.0765)	-0.03783 (0.1108)	0.118932 (0.1060)
Muslim ⁽⁴⁾	-0.59684*** (0.0749)	-0.60036*** (0.0975)	-0.62162*** (0.1161)
Roman Catholic*R ⁽⁵⁾	0.042568*** (0.0043)	0.04901*** (0.0062)	0.047054*** (0.0060)
Protestant*R ⁽⁵⁾	0.032607*** (0.0055)	0.026068*** (0.0079)	0.039348*** (0.0078)
East Orthodox*R ⁽⁵⁾	0.028955*** (0.0071)	0.043319*** (0.0107)	0.031815*** (0.0097)
Other Christian*R ⁽⁵⁾	0.031674** (0.0141)	0.017973 (0.0201)	0.052886*** (0.0198)
Jewish*R ⁽⁵⁾	0.017196 (0.0107)	0.014955 (0.0163)	0.020883 (0.0142)
Muslim*R ⁽⁵⁾	0.098959*** (0.0101)	0.099764*** (0.0135)	0.103138*** (0.0151)
Religiosity (R)	0.041908*** (0.0025)	0.034527*** (0.0036)	0.044182*** (0.0035)

Standard errors in parentheses. Significance: ***p<0.01; **p<0.05; *p<0.10. Omitted categories: (1) Resident in big city; (2) comfortable with current income; (3) last 7 days any other activity; and (4) no religious affiliation or other non-Christian affiliation. (5) Interactions terms involving religious denomination and religiosity.

Table 10: Pray and Happiness: OLS

Variables	All	Males	Females
Individual Controls	YES	YES	YES
Roman Catholic ⁽⁴⁾	0.079652*** (0.0286)	0.174735*** (0.0476)	0.065605* (0.0366)
Protestant ⁽⁴⁾	0.171759*** (0.0335)	0.167907*** (0.0566)	0.174426*** (0.0422)
East Orthodox ⁽⁴⁾	-0.14298*** (0.0415)	0.022656 (0.0706)	-0.17395*** (0.0532)
Other Christian ⁽⁴⁾	0.169837*** (0.0637)	0.280309*** (0.1012)	0.140852* (0.0831)
Jewish ⁽⁴⁾	0.413994*** (0.0890)	0.221888* (0.1286)	0.59521*** (0.1238)
Muslim ⁽⁴⁾	0.16887*** (0.0572)	0.16235** (0.0812)	0.186334** (0.0818)
Roman Catholic*P ⁽⁵⁾	0.001847 (0.0052)	-0.01185 (0.0080)	-0.00055 (0.0071)
Protestant*P ⁽⁵⁾	-0.00598 (0.0062)	-0.00298 (0.0097)	-0.00919 (0.0083)
East Orthodox*P ⁽⁵⁾	0.017353** (0.0080)	-0.00275 (0.0125)	0.013717 (0.0109)
Other Christian*P ⁽⁵⁾	-0.01916 (0.0163)	-0.02078 (0.0231)	-0.03685 (0.0238)
Jewish*P ⁽⁵⁾	-0.04772*** (0.0145)	-0.03075 (0.0216)	-0.06439*** (0.0197)
Muslim*P ⁽⁵⁾	-0.01687 (0.0121)	-0.02975* (0.0166)	-0.00584 (0.0177)
Pray (P)	-0.03154*** (0.0038)	-0.03103*** (0.0062)	-0.02697*** (0.0050)

Standard errors in parentheses. Significance: ***p<0.01; **p<0.05; *p<0.10. Omitted categories: (1) Resident in big city; (2) comfortable with current income; (3) last 7 days any other activity; and (4) no religious affiliation or other non-Christian affiliation. (5) Interactions terms involving religious denomination and pray.