

# **Deliver Us From Evil: Religion as Insurance**

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“In my distress I called to Yahweh,  
He heard me and brought me relief.  
With Yahweh on my side I fear nothing”  
(Psalm 118)

This could be a paper about institutions, or about religion, or about subjective well-being. It’s actually all three.

Our primary interest is to wonder why different countries have such different economic and social institutions. We particularly concentrate on the generosity of unemployment support.

We address this issue by mixing two small, but fast-growing, literatures: the economics of religion and the economics of happiness. We are going to wonder how religion might be related to institutions by looking at how life events separately affect the well-being of the religious and the non-religious.

Unemployment benefits are often explicitly considered as form of insurance: just like car insurance.

What if there is more than one insurer? If religion dampens the effect of negative life events, then it is acting like insurance too.

Key proposition: these two sources of insurance are substitutes. When religion is widespread, we don't need social insurance.

***Our main Research questions are then***

- 1) Are the religious happy or not?
- 2) Is there an insurance role for religion (using interaction effects in well-being regressions) for adverse life events: unemployment, marital break-up, widowhood?
- 3) Does this insurance effect vary between life events?
- 4) Are social and religious insurance negatively correlated: can religion help us to think about economic and social institutions?
- 5) What implications for economic behaviour?

## *Data*

1. European Social Survey 2002/2003 (ESS):
  - Cross-section data on 22 countries. 30,000 observations in the regression sample (excluded Israel; restricted to the 16-80 year-old age group).
2. British Household Panel Survey (BHPS)
  - 10,000 individuals in 5,500 British households. Same individuals interviewed each year. 1991-2002

### *ESS Data: measures of religiosity*

#### **❖ Denomination**

- *“Do you consider yourself as belonging to any particular religion or denomination”?*

#### **❖ Religious Attendance**

- *“Apart from special occasions such as weddings and funerals, about how often do you attend religious services nowadays”?*
- We recode into a binary variable for attendance *“at least once a month”*.

#### **❖ Prayer**

- *“Apart from when you are at religious services, how often, if at all, do you pray”?*
- We recode into a binary variable for praying *“at least once a week”*

*Table 1. Measures of religiosity in 21 European countries*

	<i>% of total</i>	<i>N</i>
1) Churchgoer	27.9	8,180
2) Prays	37.1	10,896
3) Denomination		
Roman Catholic	39.7	11,626
Protestant	15.6	4,575
Other	6.4	1,868
No Religion	38.4	11,238

Source: ESS 2002/2003, weighted frequencies

*Table 2. Churchgoing and prayer by religious denomination, %*

	<i>Churchgoer</i>	<i>Prays</i>
Roman Catholic	50.1	57.7
Protestant	24.2	42.0
Other	45.4	66.5
<i>All religious denominations</i>	<i>43.0</i>	<i>54.7</i>
No Religion	3.5	8.9
Total	27.9	37.1

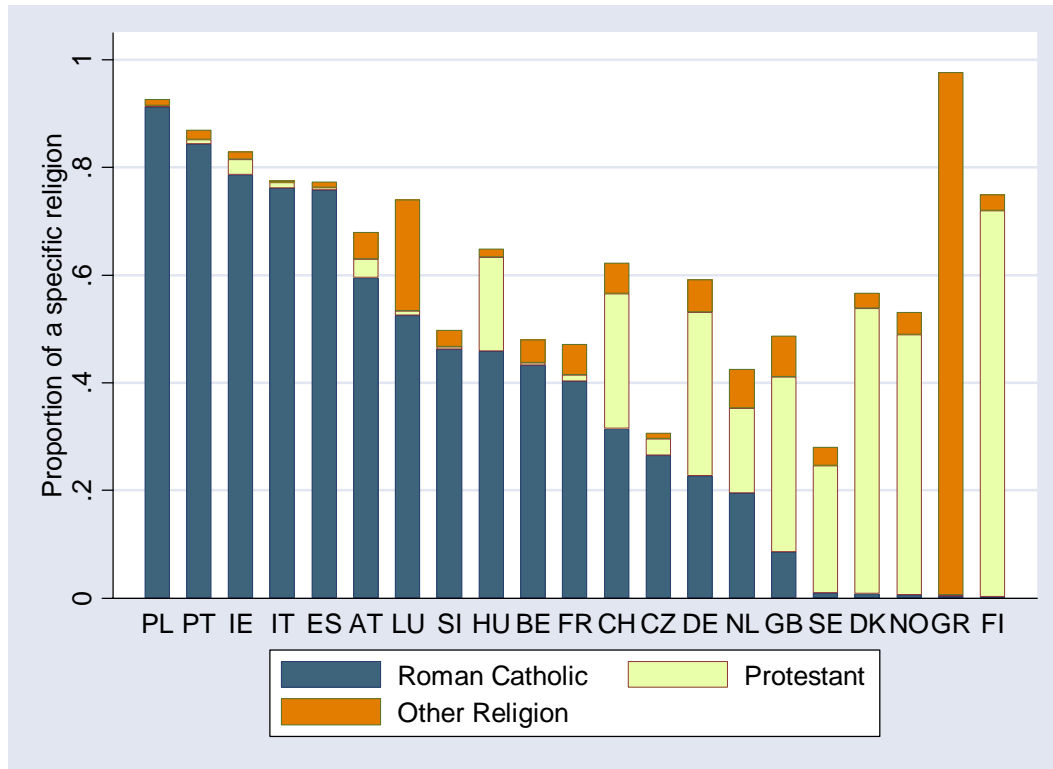
Source: ESS 2002/2003 (N= 29,375; Weighted frequencies).

*Table 3. Prayer and churchgoing*

		<i>Churchgoing</i>		
		<i>Yes</i>	<i>No</i>	<i>Total</i>
<i>Prayer</i>	<i>Yes</i>	81.6	19.9	37.1
	<i>No</i>	18.4	80.1	62.9
<i>Total</i>		100.0	100.0	100.0

Source: ESS 2002/2003 (N=29,375; Weighted frequencies).

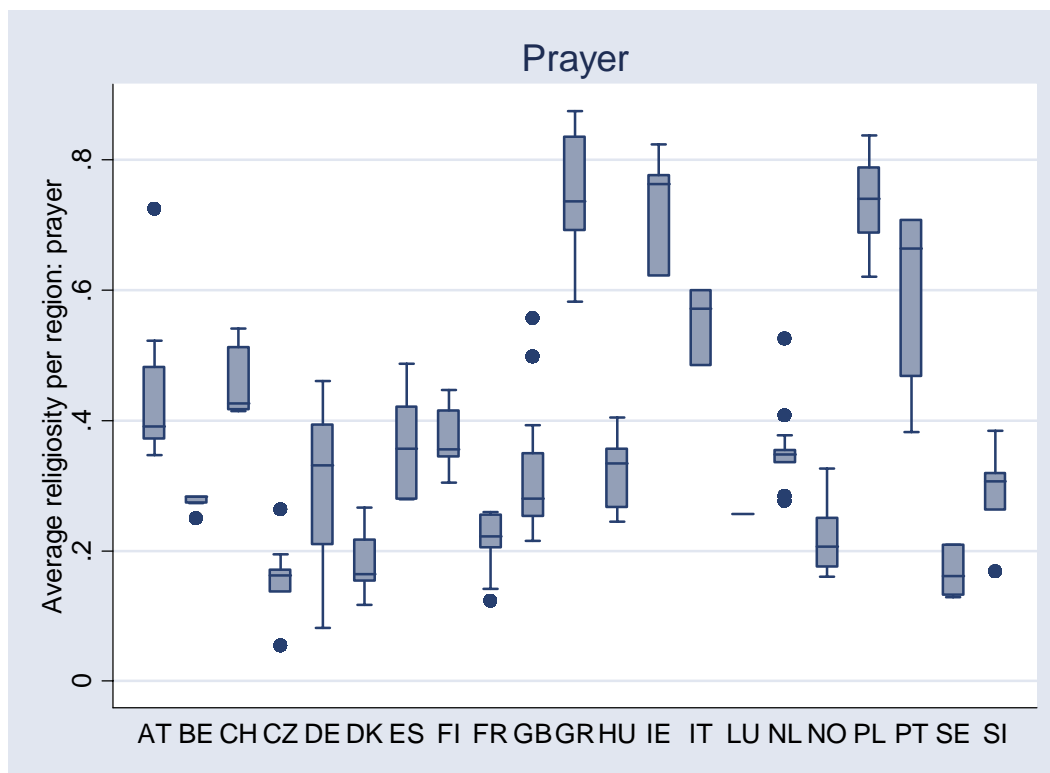
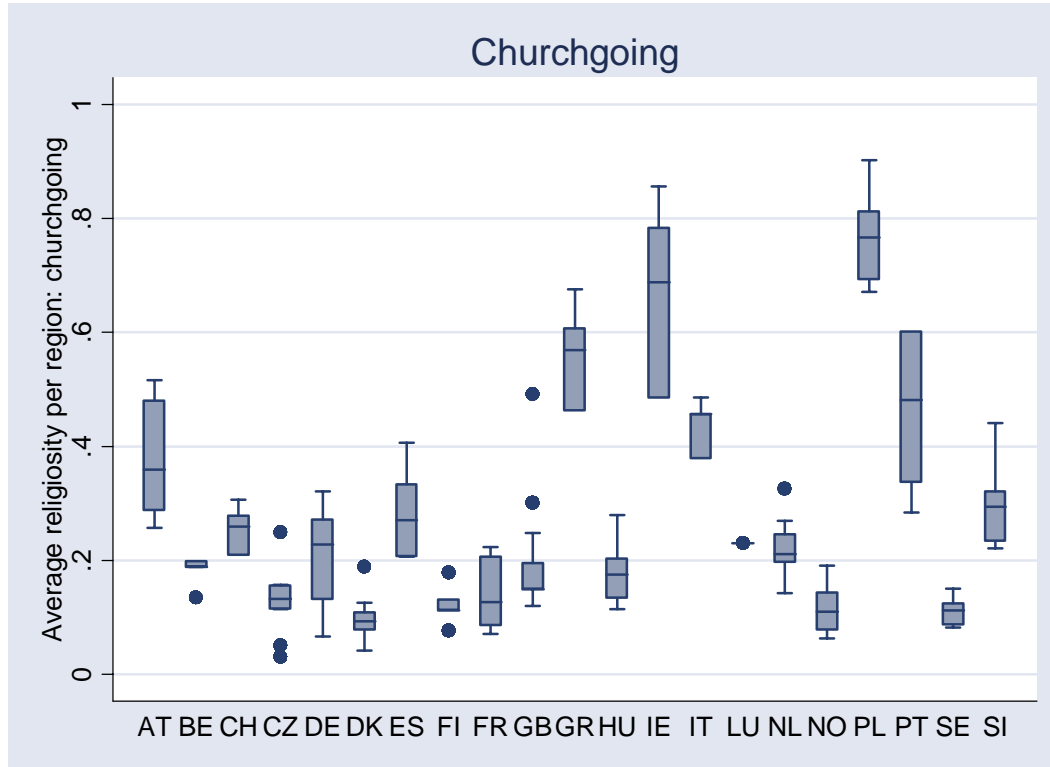
*Figure 1. Religious denominations in European countries*



Source: ESS 2002/2003 (N=29,375; Weighted frequencies).

Measure of religiosity: self-reported identification with a particular religion or denomination

Figure 2. Average regional religiosity in European countries



Source: ESS 2002/2003 (N=29,375; weighted means). Whisker-and-box plot: horizontal line in the box: median, lower hinge: 25th percentile, upper hinge: 75th percentile, horizontal lines outside the box: lower or upper adjacent values, dots: outside values

### *Dependent Variable: Life Satisfaction*

“All things considered, how satisfied are you with your life as a whole nowadays”?

This question is answered on a scale of 0 to 10, where 0 means extremely dissatisfied and 10 means extremely satisfied. In the multivariate analysis, scores of 0 to 2 were combined due to small cell sizes.

*Table 4. The distribution of life satisfaction in European countries*

	<i>Freq.</i>	<i>Percent</i>
<i>Extremely dissatisfied</i>	561	1.9
<i>1</i>	344	1.2
<i>2</i>	737	2.5
<i>3</i>	1,259	4.3
<i>4</i>	1,428	4.9
<i>5</i>	3,347	11.4
<i>6</i>	2,734	9.3
<i>7</i>	5,089	17.3
<i>8</i>	7,426	25.3
<i>9</i>	3,625	12.3
<i>Extremely satisfied</i>	2,822	9.6
<b>Total</b>	<b>29,375</b>	<b>100.0</b>
Mean	6.8	
Median	7.0	

Source: ESS 2002/2003, weighted frequencies

*Are the religious more satisfied with their lives?*

*Table 4. Life satisfaction and religiosity: Main Effects. ESS.  
Ordered logit regressions*

	Church	Prayer
Attends religious service at least once a month	0.179** (0.028)	
Prays at least once a week		0.119** (0.026)
Roman Catholic	0.120** (0.031)	0.139** (0.031)
Protestant	0.119** (0.033)	0.122** (0.033)
Other Religion	-0.040 (0.056)	-0.032 (0.056)
Second Income Quartile	0.247** (0.032)	0.244** (0.032)
Third Income Quartile	0.345** (0.032)	0.343** (0.032)
Highest Income Quartile	0.578** (0.034)	0.574** (0.034)
Inactive	0.104** (0.028)	0.106** (0.028)
Unemployed	-0.735** (0.054)	-0.740** (0.054)
Education: lower secondary	0.028 (0.038)	0.025 (0.038)
Education: upper secondary	0.049 (0.038)	0.045 (0.038)
Education: post secondary, non-tertiary	0.138** (0.051)	0.135** (0.051)



Education: tertiary	0.082*	0.082*
	(0.041)	(0.041)
Health-Fair	-0.664**	-0.664**
	(0.029)	(0.029)
Health-Bad	-1.384**	-1.388**
	(0.053)	(0.053)
Health Hampers a Lot	-0.387**	-0.397**
	(0.057)	(0.057)
Health Hampers a Little	-0.166**	-0.170**
	(0.031)	(0.031)
Male	-0.159**	-0.153**
	(0.022)	(0.022)
Age	-0.075**	-0.075**
	(0.005)	(0.005)
Age-squared/1000	0.828**	0.832**
	(0.049)	(0.049)
Separated	-0.815**	-0.820**
	(0.084)	(0.084)
Divorced	-0.502**	-0.511**
	(0.042)	(0.042)
Widowed	-0.546**	-0.548**
	(0.045)	(0.045)
Never married	-0.419**	-0.420**
	(0.034)	(0.034)
Children living at home	0.046+	0.048+
	(0.027)	(0.027)
Country fixed effects	Yes	Yes
Observations	29375	29375
Log likelihood	-55088	-55098

We estimate **interaction terms**, such as gamma below (see the columns of Table 5).

$$LS = \alpha_1 RC + \alpha_2 Prot. + \alpha_3 Other + \alpha_4 Church + \theta Unem + \gamma_1(RC*Unem) + \gamma_2(Prot.*Unem) + \gamma_3(Other*Unem) + \gamma_4(Church*Unem) + \beta' X + \varepsilon$$

*Ordered Logit Regressions.*

	<i>Event</i>			
	<i>Unemployed</i>	<i>Separated</i>	<i>Divorced</i>	<i>Widowed</i>
Event*Roman Catholic	0.470** (0.134)	0.359+ (0.216)	-0.182+ (0.107)	-0.235* (0.111)
Event*Protestant	0.438* (0.173)	0.287 (0.263)	0.181+ (0.106)	0.098 (0.122)
Event*Other	0.660** (0.198)	-0.018 (0.311)	-0.283 (0.180)	-0.166 (0.150)
Event*Churchgoing	-0.046 (0.144)	-0.150 (0.225)	-0.325** (0.125)	0.111 (0.091)
Event Main Effect	-1.000** (0.082)	-0.921** (0.120)	-0.437** (0.057)	-0.490** (0.083)

Source: ESS 2002/2003 + significant at 10% level \* significant at 5% level; \*\* significant at 1% level. Other controls as in Table 4.

Cells are shaded dark for a positive (insurance) coefficient, and shaded light for a negative (punishment) coefficient.

The results with prayer as a main effect are qualitatively similar.

## *Key Results*

- ❖ Catholics are punished for divorce; Protestants are insured against divorce.
- ❖ The difference in the separation and divorce coefficients large for Catholics..
- ❖ Both Catholics and Protestants are insured against unemployment.
- ❖ Churchgoing punishes divorce
- ❖ All these effects are **stronger for women**.
- ❖ We find the same kind of results in the BHPS, where the sample is much larger, but covers one country only.

## Shift-Share explanation

A mechanical alternative: the religious suffer from higher unemployment, so that relatively happier people are unemployed, raising the religious unemployed's average well-being.

If this were to be the real explanation, then we'd expect that:

- ❖ The religious experience more unemployment than the non-religious (False).
- ❖ Protestants divorce more than the non-religious (False).
- ❖ Roman Catholics divorce less than the non-religious (True).
- ❖ AND Roman Catholics separate more than the non-religious (False).

- ❖ Is religion endogenous? Does religious behaviour change as a function of life events? In BHPS panel data there is only little evidence that religiosity is correlated with the adverse life events considered in the paper: religion is exogenous.

*Table 7. Life events and change of religious behaviour in Britain, 1991-2002.*

	<i>From No to Some Denomination</i>	<i>Increased Church Attendance</i>	<i>Increased Importance of Belief</i>
<b><i>Men All</i></b>	<b>5.6% (14290)</b>	<b>16.9% (25374)</b>	<b>18.0% (7388)</b>
Employed to Unemployed	0	0	0
Married to Separated	+ (1.3%)	0	0
Married to Divorced	0	0	0
Married to Widowed	+ (2.3%)	0	0
<b><i>Women All</i></b>	<b>4.9% (17137)</b>	<b>17.5% (30374)</b>	<b>21.0% (9003)</b>
Employed to Unemployed	0	0	0
Married to Separated	+ (1.2%)	+ (8%)	0
Married to Divorced	0	0	0
Married to Widowed	0	+ (0.0%)	- (4.8%)

Source: BHPS 1991-2002.

## *Implications*

- ❖ Religion acts as insurance, but not for everyone, and not for all events.
- ❖ The unemployed are protected by religion.
  - Can this explain why unemployment rates are higher in more religious countries: it “matters less”?
  - Can this explain why unemployment benefits are lower in more religious countries? The Replacement ratio is significantly lower in high churchgoing countries. Some work has talked about substitution between **family** and **State** support; maybe we should think about **religious** support as well.
  - It would be interesting to look at changes in social support and changes in religious demography (increasing Catholicism - percentage of Hispanics - in the Southern States of the USA).
- ❖ The divorced are punished by Catholicism (but the separated are not).
  - Differences in divorce laws should be correlated with %Catholic, %Protestant.

We look at four specific implications:

- Values
- Institutions
- Behaviour
- Happiness Smoothing

## **Values (marriage and unemployment)**

BHPS data. Do you agree that “*It is better to divorce than to continue an unhappy marriage*”:

Regular churchgoers: 16%

Non-regular churchgoers: 29%

Do you agree that “*It is the government's responsibility to provide a job for everyone who wants one*”.

The religious are altruists: we may expect them to be in favour of government job provision. On the other hand, they are insured against unemployment

Non-churchgoing men: 40% disagree.

Churchgoing men: 47%. disagree.

## **Institutions (replacement rate)**

This is correlated with religion both in the ESS data (across countries) and in US data (across States).

## ESS Aggregated Data

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	Replacement Rate (Couple with 2 children)		
	Robust Regressions		
% Roman Catholic	-0.282+		
	(0.148)		
% Protestant	-0.134		
	(0.212)		
% Other	-0.385*		
	(0.159)		
% Monthly Church Attendance		-0.477**	
		(0.113)	
% Weekly Prayer			-0.450**
			(0.120)
Constant	87.587**	84.631**	88.570**
	(9.921)	(3.767)	(5.116)
Observations	20	20	20
R-squared	0.378	0.500	0.437
Standard errors in parentheses			
+ significant at 10%; * significant at 5%; ** significant at 1%			

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*Replacement Rates and Religious Denomination: US States 1990-2000.*

	Replacement Rate (1990)	Percentage Point Change in the Replacement Rate
Mainstream Protestant (%)	0.306* (0.117)	
Evangelical Protestant (%)	-0.171* (0.081)	
Eastern Orthodox (%)	-8.733+ (4.468)	
Top half of % point change in Mainstream Protestants		-0.605 (1.072)
Top half of % point change in Evangelical Protestants		-1.500 (1.072)
Top half of % point change in Eastern Orthodox		-2.394* (1.116)
Constant	39.876** (2.507)	1.236 (0.916)
Observations	49	50
R-squared	0.219	0.188

Note: Standard errors in parentheses;+ significant at the 10% level; \* significant at the 5% level; \*\* significant at the 1% level. The changes in column 2 refer to 1990-2000.

## Happiness Smoothing

If you are insured against shocks, your utility should vary less over time.

Although if you choose insurance because you are at risk (adverse selection) then the opposite may be found.

We use the index of ordinal variation, a measure of variability for ordinal variables. We individuals in the BHPS who gave the same answer to the religion questions in waves 7 and 9. We then calculate the index of ordinal variation for the life satisfaction of each individual over the waves 7-10 and 12-13 (the life satisfaction question was not asked in wave 11). We restrict our analysis to those individuals who provided valid life satisfaction information over all six waves. This gives around 5 800 individual life satisfaction variation scores. The index of ordinal variation is zero when all answers are the same, and 1 in the case of extreme polarisation. The average index value for these 5800 individuals is 0.193.

Protestants have lower variability, as do frequent churchgoers. Belief does not change variability: it is the social not the personal aspect which matters.

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Index of Ordinal Variation in Life Satisfaction

Roman Catholic	0.003 (0.008)	-0.001 (0.009)
Protestant	-0.009+ (0.005)	-0.003 (0.006)
Other	0.022* (0.010)	0.027** (0.010)
Regular Churchgoer	-0.016* (0.007)	
Age	-0.002** (0.001)	-0.002** (0.001)
Age-squared	0.014* (0.007)	0.018* (0.007)
Male	-0.022** (0.004)	-0.016** (0.004)
High education	-0.023** (0.005)	-0.027** (0.005)
Medium education	-0.017** (0.006)	-0.021** (0.006)
Religion important		0.006 (0.006)
Constant	0.274** (0.017)	0.270** (0.018)
Observations	2992	2889
R-squared	0.029	0.024

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## Behaviour

The religious unemployed are less likely to engage in active job search than are the non-religious unemployed.

*Table 9. Active Search by the Unemployed. Probits.*

	ESS	BHPS (Women)	
Roman Catholic	-0.122 (0.074)		
Protestant	-0.231* (0.115)		
Other Religion	0.097 (0.112)		
Religion makes a little difference		-0.307* (0.153)	
Religion makes some difference		-0.044 (0.183)	
Religion makes a great difference		-0.354+ (0.190)	
Churchgoing once a week or more			-0.189 (0.160)
Churchgoing at least once a month			-0.067 (0.167)
Churchgoing at least once a year			0.216+ (0.114)
Observations	1659	522	1157

Very Generally:

- 1) Many agree that institutions are important  
(Economic, Political, Legal/Civil)
- 2) But are these exogenous? We have highlighted the relationship between religion and unemployment and marriage.
- 3) So is religion exogenous? In the BHPS, there is little evidence that individuals change their religious behaviour in the face of life events. Maybe it's *ex ante* risk that determines choice... or maybe it's not a choice at all (statistics on the % of people who change religious behaviour after the age of 20, say).
- 4) Can we think of exogenous movements in religion?  
Demographic movements in the US, German reunification, and expansion from EU15 to EU25 in 2004.