

## Measuring religious affiliation and religiosity in Europe

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# MEASURING RELIGIOUS AFFILIATION AND RELIGIOSITY IN EUROPE

*CHRISTOF WOLF*

## 1 Introduction

When Constantine declared Christianity to one of the official religions of the Roman Empire in 313 AD Europe acknowledged her beginning Christian tradition. At that time approximately 15% of the Empire's population were Christians. Only 67 years later in 380 AD Emperor Theodosius I declared Christianity to the sole state religion. Not surprisingly what we think of as Europe now was referred to as "Christendom" at least between the 14<sup>th</sup> and 18<sup>th</sup> century (Davies, 1996: 7).

Within Europe's Christendom vast differences between different flavors of Christianity often leading to deadly conflict and war were and to a certain degree still are present (Pelikan, 1987; Harakas, 1987). In addition, Europe always was populated by large minorities adhering to other religions; mostly Jews and Muslims. More recently we experienced the spread of Asian religions, too. Europe is also marked by a high degree of variation of the relationship between state and church (Robbers, 1996). In some countries State Churches can be found while others are marked by the strict separation of state and church. Overall, the religious landscape in Europe is marked by diversity, partly reflected by differences between countries and regions.

Given this diversity the question I address in this paper is whether we are able to measure religiosity across Europe. Where the instrument should be applicable in large-scale multi-purpose surveys and thus has to be economical. Two approaches to this kind of measurement are investigated. First, membership in or identification with religious groups are studied. Second, religious behaviors and attitudes are considered. Both types of approaches are empirically analyzed on the basis of two international comparative surveys: The International Social Survey Programme (ISSP) on the topic of religion from 1998 and the first round of the European Survey (ESS) from 2002. To make these datasets as comparable as possible only data from the 18 countries which were included in both studies are

used in the following analysis (cf. Table A1 in the appendix).<sup>1</sup> For the analysis presented in this paper the design weights supplied with the datasets were always applied. Where summary results for 'Europe' are reported an additional population weight was used. All references to Europe or Europe's population refer only to the countries selected for the analysis.

It should be noted that the ISSP and the ESS differ in several respects. First, partly as a reaction to the experience made in the context of the ISSP which is an ongoing project since 1985, the ESS is much more centrally organized and presents strict guidelines to all participants regarding survey procedures. The ISSP applies less rigid procedures, partly to save costs and to be able to adapt to national survey customs. For this reason the ISSP has deliberately renounced using a common source questionnaire for the background variables such as education or income, but also religious affiliation and church attendance. Thus, the way these data are collected varies between countries and a strategy of ex-post harmonization is applied to them (see Scholz, in this volume). In contrast the ESS master questionnaire encompasses all questions and only leaves the collection of educational standing open to national practice (Kolsrud & Skjåk, in this volume). A further important difference pertains to the mode of data collection. While the ISSP is usually administered as a written questionnaire often distributed in the context of some other national survey the ESS data are collected by face-to-face interviews. A minor difference are the differing age limits of the target population. This was set at 15 years of age for the ESS, though some countries have also sampled 14 year old respondents. In the ISSP the lower age limit seems to be 18 years, however, there are countries in which 16 years was set at the minimum age.

## **2 Measuring the Association with a Religious Group: Membership vs. Identification**

Measuring the relationship between an individual and a religious group can be done in at least two different ways. First, one can ask if a person is a *member* of a religious group. Second, one can measure if a person *identifies* him- or herself with a religious group. Of course, to yield different results with these approaches the concept of *membership* has to be unambiguous, not left to individual interpretation. This condition may hold more true in some countries or with respect to some religious groups than in others. For example, in Germany membership in the mainline protestant churches as well as in the catholic church is indicated on the income tax card of employees, thus reminding people of their status.

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1 Included in this number are East- and West-Germany (DO and DW respectively) which were treated as separate countries in the following analysis. The ISSP-data for North Ireland and Great Britain were combined to data for the United Kingdom to match the respective ESS data.

If we only distinguish between two states of membership and identification we can draw a four-fold table (see Table 1). There are two states in which both indicators are congruent: Either both signal an association with a religious group (religious member) or both signal the absence of such an association (secular non-member). Then there are two states in which the two indicators differ: Either members do not identify (nominal members) or non-members identify (religious non-members). Of course, these latter incongruent cases are especially interesting and the source of much debate among scholars of the sociology of religion. Proponents of the secularization thesis would argue that there is a general shift from the lower left corner of the table to the upper right corner with a detour via the nominal member state (Bruce, 2001; Demerath, 2001; for a definition see Wilson, 1987: 160). Opponents of this view claim that “many Europeans have ceased to connect with their religious institutions in any active sense, but they have not abandoned, so far, ... their deep-seated religious aspirations ...” (Davie, 2002: 8). According to this observation one would expect individuals to move from the left quadrant to the right quadrant of the bottom row; i.e. from being religious members to being religious non-members. The result of this process is characterized by Davie as “believing without belonging”, an empirical description that was recently contested by Voas & Crockett (2005).

**Table 1 A Typology of Membership and Identification**

		Membership in religious group	
		yes	no
Identification with religious group	no	nominal member	secular non-member
	yes	religious member	religious non-member

Fortunately, there are data available to test the empirical validity of the two positions sketched above. At the same time these data allow us to explore the advantages and disadvantages of measuring association with religious groups based on the criteria of membership or identification. In the European Social Survey (ESS) association with religious groups is measured by the following question: “Do you consider yourself as belonging to any particular religion or denomination?” The stimulus “belonging” was explicitly chosen as an indicator for identification not membership (see ESS, round 1, source questionnaire, page 17).<sup>2</sup>

2 At least from a German perspective but certainly also from the perspective of other countries involved in the ESS this approach to measure religious affiliation is rather atypical. In Germany the question employed usually asks for “*membership* in a religious group”. Consequently, in the German and Austrian versions of the ESS an additional clarifying sentence was added to the question given in the source questionnaire: “*Regardless of whether you are a member or affiliate of a church or religious group do you consider yourself as belonging to any particular religion or denomination?*”.

Those giving a positive answer to this question were asked which group they feel they belong to. The source questionnaire lists 21 different groups five of which contain the addition “other”, e.g. “Other Eastern Orthodox”, that should be entered in detail (cf. Table 2).<sup>3</sup> As far as I can see this list was applied only in Great Britain. Most countries used far shorter lists, though at least one country, Ireland, asked for religious identification in an open ended question.

**Table 2 List of Religious Groups Used in the ESS**

Main Questionnaire		Round 1 Dataset	
01	Christian – no denomination		
02	Roman Catholic	1	Roman Catholic
03	Greek or Russian Orthodox	} 3	Eastern Orthodox
04	Other Eastern Orthodox, which		
05	Protestant (no further detail)	} 2	Protestant
06	Church of England / Anglican		
07	Baptist		
08	Methodist		
09	Presbyterian/Church of Scotland		
10	United Reform Church/Congregational		
11	Free Presbyterian		
12	Brethren	} 4	Other Christian
13	Other Protestant, which		
14	Other Christian, which		
15	Hindu	} 7	Eastern Religions
16	Sikh		
17	Buddhist		
18	Other Eastern Religions, which		
19	Jewish	5	Jewish
20	Islam / Muslim	6	Islam
21	Other non-Christian, which	8	Other non-Christian

In the integrated dataset only eight groups are distinguished (right column in Table 2). However, not even these groups can be identified in every country. The table of 9 religious groups – 8 groups plus those not belonging to any group – by 23 countries has 27 empty cells (13%). If we restrict the analysis to those cells with more than 10 cases 101 cells (49%) have to be discarded. The only group containing more than 10 cases in

3 An overview of different approaches to classifying religions can be found in Partin (1987).

every country included in the ESS is the group of those not identifying with any religious group. Furthermore, if a minimum of 10 cases per country is taken as the criterion, the category “Jews” can only be analyzed in Israel.

In contrast to the ESS the ISSP collects data on religious membership. Due to the fact that the data for the ISSP usually is collected in connection with other (national) surveys no fixed master questionnaire for the background variables exist. Instead the participating countries agree to collect data in such a way that allows them to code these to a predefined list of compulsory background variables and categories (cf. Braun & Uher, 2003).<sup>4</sup> Thus, an approach of output harmonization is applied. Because a mandatory question wording is missing in the ISSP and researchers instead rely on their country-specific conventions for gathering this information on association of the respondent with a religious group the exact meaning of this question might vary between countries. However, at least in the case of the European countries involved in the ISSP the predominant formulation is consistent with the interpretation that *membership* rather than *identification* is measured.

Because the ISSP is a world-wide survey carried out in almost 40 countries today the categories of religious groups and denominations proposed in the ISSP list of core background variables is a carefully designed hierarchical system resulting in a three-digit code that theoretically allows the distinction of hundreds of different groups. For ISSP data in which this classification is employed around 70 different categories are found.<sup>5</sup> However, the data that will be analyzed in what follows comes from the ISSP survey on religion from 1998. At that time only a little more than 20 religious groups and denominations were distinguished.

Table 3 presents the distribution for the two different concepts of measuring association with religious groups from the ISSP and the ESS. Overall, the two distributions show a high degree of similarity. With over 95% of the population associated with a religious group belonging to Christianity both datasets clearly reflect Europe’s Christian tradition. Furthermore, both surveys show that the ‘not affiliated’ are the second largest ‘religious’ group in Europe. However, there are also striking differences between the two distributions: First, when asked if they *identify* with a religious group more than a third of

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4 In the mandatory list of core background variables this variable is called RELIG and is described as “Religious denomination (asked country specific but re-coded to standard)” (Braun & Uher, 2003: 39). The ISSP list of background variables can also be attained at: <http://www.za.uni-koeln.de/data/en/issp/codebooks/bv2001.pdf> (2005/12/02).

5 The list of core background variables was agreed upon in 2001 and was applied for the first time in the data collection round of 2002.

Europe’s population answers in the negative, compared with ‘only’ a quarter negating *membership*. Second, whereas the percentages of Catholics are virtually identical in the two datasets the proportion of the population claiming membership in a Protestant group is much higher than the proportion identifying with such a group. Third, in contrast to Protestants the proportion of the population identifying with small religious groups tend to be *larger* than the respective proportions identifying with these groups. This result could be an artefact resulting from differences in the way the data are collected in the two surveys and their slightly different definitions of the target populations. Nonetheless, this result could also reflect the small but noticeable increase in ‘alternative’ religions lacking traditional notions of membership, sometimes even lacking the concept of exclusiveness.

**Table 3 Religious Membership/Association in Europe**

	ISSP-EU 1998			ESS 2002		
	A	B	C	A	B	C
Catholic	51.8	70.8	} 97.8	44.7	70.6	} 95.9
Protestant	19.1	26.2		14.4	22.7	
Eastern Orthodox	0.1	0.1		0.3	0.5	
Other Christian denomination	0.6	0.8		1.3	2.1	
Judaism	0.2	0.2	} 2.2	0.2	0.3	} 4.1
Islam	0.3	0.4		1.7	2.7	
Eastern religions	0.2	0.3		0.5	0.7	
Other non-Christian religions	0.9	1.2		0.2	0.3	
None	26.9	—	—	36.8	—	—
Unweighted N	22,008	16,098	16,098	31,610	19,052	19,052

A Percentage of total.

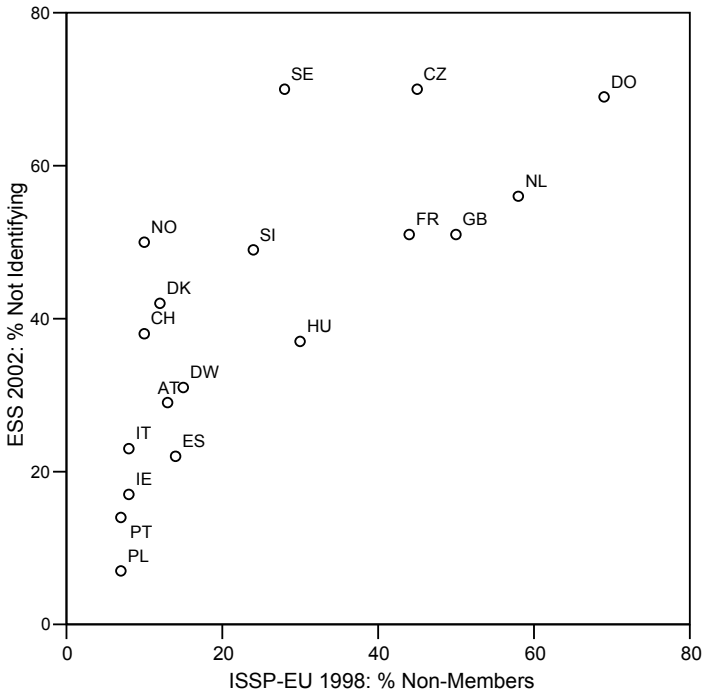
B Percentage of affiliated.

C Christian vs. non-Christian groups.

As can be seen from Figure 1 the differences between membership rates and the proportion identifying with a religious group differ greatly throughout Europe. In countries like the Netherlands, the United Kingdom, Hungary, Spain, Portugal, France and East-Germany the differences are modest. In Scandinavia the divergence between the two concepts is largest: In Denmark the discrepancy is 30 percentage points, in Sweden and Norway the difference amounts to around 40 percentage points.

There is however no clear relationship between the religious or denominational composition of a country and the degree to which membership and identification rates differ. There are protestant countries with large differences, e.g. Scandinavia, and protestant countries with no discrepancies, e.g. East-Germany. Nonetheless, the share of Catholics seems to be negatively related to divergence between the two measures under study. Thus, at least on the aggregate level belonging and identifying are more congruent in Catholic than in mixed or Protestant countries.

**Figure 1 Identification vs. Membership**



### 3 Indicators of Religiosity

Religion or rather religiosity is a multidimensional concept. At least since Glock's (1962) pioneering investigation into the measurement of religion we distinguish between religious belief, religious experience, religious knowledge and religious behavior. Where the latter might be divided into public religious behavior, e.g. church attendance, and private behavior, e.g. prayer.<sup>6</sup> Both, the ISSP 1998 and the ESS of 2002 contain several indicators related to these dimensions of religiosity. Three of these items were collected in very similar fashion in both surveys and are therefore suitable for comparison.

6 For the measurement of religiosity see Boos-Nünning (1972); Kecskes & Wolf (1993, 1995); Meulemann (1985); Schreuder (1991); Roof (1979); Steensland et al. (2000); Hill & Hood (1999); Slater, Hall & Edwards (2001).



Next to religious affiliation indicators measuring the frequency of worshipping are of central importance to the study of religiosity (Jagodzinski & Dobbelaere, 1995; Feldkirchner, 1998). Two of these indicators are included in the ISSP and the ESS: attending religious services and praying. Box 1 contains the questions and answering categories for collecting the data on the frequency of attending religious services employed in the ISSP and the ESS. In both instances the answering categories run from the more frequent to never, though there is some variation. The ESS categories differentiate more in the region of higher frequencies, whereas the ISSP measure is somewhat more fine grained in the middle region. Overall however the similarities prevail.

### Box 1 Measuring Attendance at Religious Services

	ISSP 1998 <sup>a</sup>	ESS 2002
Question:	According to national practice, for example in France: En dehors des mariages, des enterrements et des baptêmes, tous les combien assistez-vous à un culte religieux ?	Apart from special occasions such as weddings and funerals, about how often do you attend religious services nowadays?
Answers:	1 Once a week or more 2 2-3 times a month 3 Once a month 4 Several times a year 5 Less frequently a year 6 Never	1 Every day 2 More than once a week 3 Once a week 4 At least once a month 5 Only on special holy days 6 Less often 7 Never

<sup>a</sup> The scheme for measuring attendance at religious services in the ISSP was updated 2001 by adding two categories: 'several times a week' and 'once a year'.

With respect to the measures of praying given in Box 2 the differences are more pronounced. The answering scales are reversed and they vary with respect to their degree of differentiation. In the ISSP an 11-point scale is used with categories running from 'never' to 'several times a day' and the corresponding numbers increase from '1' to '11'. The ESS uses the same scale as for the measurement of attending religious services, that is a 7-point scale reaching from 'every day' represented by a '1' to 'never' marked by the number '7'. Given findings from experimental studies on numerical coding and poling of answering scales it could be expected that the two questions vary in their relation to other indicators of religiosity (Krebs & Langfeldt, 2005). However, this does not seem to be the case here.

**Box 2            Measuring Frequency of Prayer**

	<b>ISSP 1998</b>	<b>ESS 2002</b>
Question:	About how often do you pray?	Apart from when you are at religious services, how often, if at all, do you pray?
Answers:	1 Never 2 Less than once a year 3 About once or twice a year 4 Several times a year 5 About once a month 6 2-3 times a month 7 Nearly every week 8 Every week 9 Several times a week 10 Once a day 11 Several times a day	1 Every day 2 More than once a week 3 Once a week 4 At least once a month 5 Only on special holy days 6 Less often 7 Never

The third and final indicator of religiosity contained in both surveys taps on the extent to which the respondent believes to be religious. The wordings of the respective questions are very similar, although in the ESS it is stressed that the question is not related to whether the respondent is a member of a religious group or not (cf. Box 3). However, larger differences can be found with regard to the answering scales. Again the polarity of these scales and their degree of differentiation vary. This time the ESS has the finer grained scale in which the numerical values increase with the intensity of the measured attribute. A further difference of the answering scales is that while in the case of the ISSP all answering alternatives are marked verbally the ESS uses an 11-point scale of which only the end points are labeled.

**Box 3            Subjective Religiosity**

	<b>ISSP 1998</b>	<b>ESS 2002</b>
Question:	Would you describe yourself as ...	Regardless of whether you belong to a particular religion, how religious would you say you are?
Answers:	1 Extremely religious 2 Very religious 3 Somewhat religious 4 Neither religious nor non-religious 5 Somewhat non-religious 6 Very non-religious 7 Extremely non-religious	00 Not at all religious 01 02 ... 08 09 10 Very religious

My expectation is that these three indicators form one common dimension in both datasets. In my view we can interpret this as a validation study. We have a theoretical construct, i.e. religiosity, which we observe through two different devices, i.e. ISSP and ESS, using device specific instruments, i.e. items. Given that the object of interest is sufficiently structured we should be able to make very similar observations with two different, but equally adequate instruments. This is comparable to the observation of an object using different magnifying glasses of different strength. You will see the same item in different degrees of resolution but the relationships between its different parts should be constant or at least almost constant.

As a principal components analysis shows the three indicators load on a common factor; in both studies this factor explains 77% of the total variance (eigenvalue=2.3). With loadings ranging from 0.86 to 0.90 the three indicators equally contribute to the common factor (see Table 4). Thus, the three items which differ slightly between both surveys measure one – and as the subsequent analysis will show – the same dimension, i.e. religiosity, equally well.

**Table 4 Principal Components Analysis of Indicators of Religiosity, Factor Loadings**

	ISSP-EU 1998	ESS 2002
Attending services	0.87	0.87
Praying	0.90	0.89
Subjective religiosity	0.86	0.88
Common variance	77%	77%

It can be argued that the strength of the relationship between these three indicators of religiosity should differ between religious groups. In other words, the indicators may not be cross-culturally equivalent. For example, for Catholics attending mass on Sunday is a requirement while Protestants can choose where they worship God. To check the extent to which the factorial structure of the three indicators varies with religious group separate principal components analyses were performed.<sup>7</sup> With minor variations the three indica-

7 This approach is advocated by van Deth (1998). Following van Deth's lead Feldkircher (1998) shows that church attendance – one of the indicators used here – is cross-culturally equivalent at least with respect to the five European countries studied by him.

tors indeed measure religiosity well for all groups (see Table 5).<sup>8</sup> Thus, these three indicators measure religiosity equally well for different religious traditions. A similar analysis for the different countries – given in Table A1 in the appendix – shows that these indicators also are equivalent across European countries.

**Table 5** Group-specific Results from Principal Components Analysis  
ESS Data <sup>a</sup>

	Highest Eigenvalue	Loadings <sup>b</sup>			Unweighted N
		Religiosity	Attending	Praying	
Catholic	2.1	0.84	0.83	0.85	14,085
Protestant	2.0	0.84	0.79	0.83	6,559
Eastern Orthodox	1.9	0.82	0.78	0.82	2,498
Other Christian	2.3	0.86	0.88	0.90	782
Jews	2.2	0.86	0.85	0.87	1,346
Muslims	1.8	0.78	0.72	0.83	815
Eastern Religions	1.7	0.70	0.68	0.86	125
Other non-Christian	1.6	0.74	0.73	0.71	177
None	1.9	0.80	0.74	0.82	14,802
Total	2.3	0.88	0.87	0.89	41,425

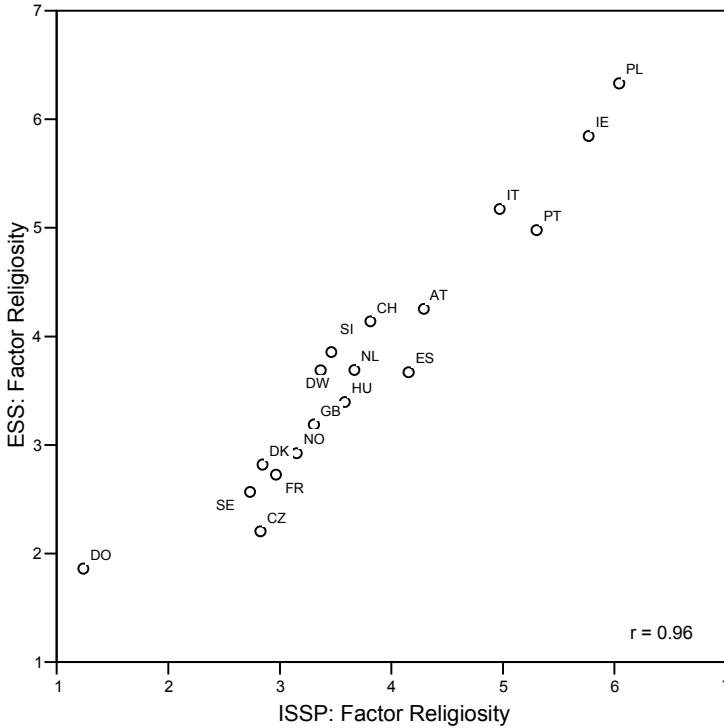
a All ESS countries were included in this analysis.

b Loadings' absolute values are given.

To measure the extent of overall religiosity an index based on the factor scores and rescaled to values between 0 and 10 was constructed, where higher values reflect higher degrees of religiosity. As is clear from Figure 2 ISSP and ESS measure the same trait, the two indexes are correlated on the aggregate level with  $r = 0.96$ . According to this measure the level of religiosity is particularly low in East-Germany and the Czech Republic. While Italy, Portugal, and especially Ireland and Poland enjoy comparably high levels of religiosity.

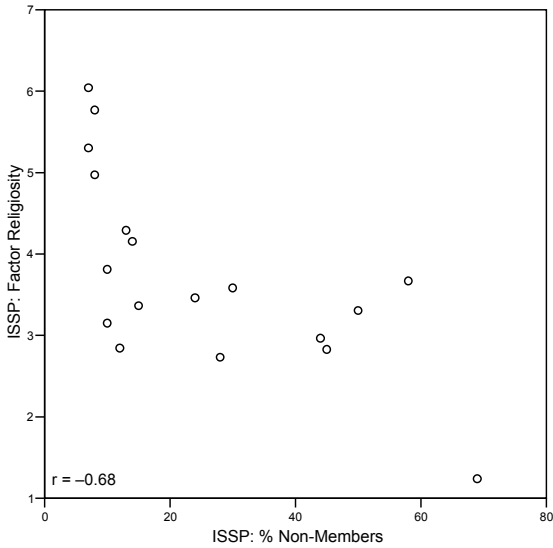
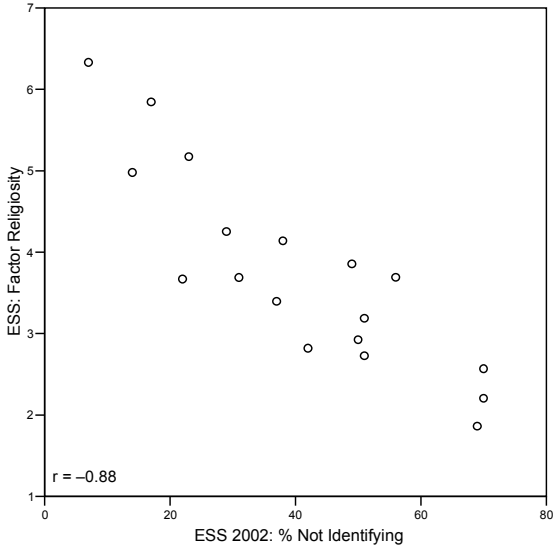
8 It can be argued that the measure of religiosity favors Christian traditions, especially those at home in western Europe. However, the differences are quite small and as was noted above members of non-Christian religious groups are a very small minority in this dataset (and in Europe).

**Figure 2** Index of Religiosity in ISSP and ESS



As we saw in the beginning membership rates vary widely between different countries in Europe. The same is true for average religiosity. And Figure 3 shows that there is a strong relationship between membership rates and religiosity on the country level. This statistical relationship in turn can be interpreted as an indication of the validity of the stimulus used to elicit religious affiliation (see Section 2). “Belonging” to a religious group and “Religiosity” seem to measure essentially the same dimension. Thus, “believing without belonging” (Davie, 2002: 5) is rather uncommon in Europe.

**Figure 3: Religiosity by Percentage not Identifying with or not being a Member of a Religious Group**



## 4 Conclusion

Religiosity, at least traditional Christian religiosity, can be reliably and validly measured with a set of a few items throughout Europe. The underlying trait seems to be robust and can be captured equally well with slightly different measurement instruments. Good items to capture other forms of religiosity, esoteric, magic or mysticism cross-nationally are still lacking.

As is evident from the results presented above membership in and identifying with a religious group do not have the same meaning in most European countries. Where these measures deviate identification is usually lower, in some instances a lot lower than the membership rate would implicate. The statistical relationship between religiosity and identification with a religious group is stronger than with group membership. Thus, if one measures religiosity and is interested in collecting information one does not capture with this measure the recommendation would be to ask for religious membership. However, this implies that a membership criterion exists and that respondents can indeed judge if they are a member of a religious group or not. In how far this is the case will have to be explored further in the future.

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## Appendix

**Table A1 Countries Included in both the ISSP 1998 and the ESS 2002**

	2000 population	Sample sizes <sup>d</sup>		Population weights	
	in million <sup>c</sup>	ISSP-1998	ESS-2002	ISSP-1998	ESS-2002
AU: Austria	8.11	1,002	2,257	0.4274	0.2710
CH: Switzerland	7.19	1,204	2,039	0.3152	0.2659
CZ: Czech Republic	10.27	1,223	1,360	0.4432	0.5695
DK: Denmark	5.34	1,114	1,506	0.2531	0.2674
DO: Germany-East	15.12	1,006	,630	0.7935	1.8108
DW: Germany-West	67.14	1,000	2,289	3.5448	2.2116
ES: Spain	39.47	2,488	1,729	0.8376	1.7215
FR: France	58.89	1,133	1,503	2.7443	2.9548
HU: Hungary	10.02	1,000	1,685	0.5289	0.4485
IE: Ireland	3.79	1,010	2,046	0.1982	0.1397
IT: Italy	57.19	1,009	1,207	2.9929	3.5732
NL: Netherlands	15.93	2,020	2,364	0.4164	0.5082
NO: Norway	4.49	1,532	2,036	0.1547	0.1663
PL: Poland	38.65	1,147	2,110	1.7791	1.3814
PT: Portugal	10.01	1,200	1,511	0.4404	0.4996
SE: Sweden	8.87	1,189	1,999	0.3939	0.3346
SI: Slovenia <sup>a</sup>	1.99	1,006	1,519	0.1044	0.0988
UK: United Kingdom <sup>b</sup>	59.77	1,010	2,052	3.1251	2.1966
<b>Total</b>	<b>422.24</b>	<b>22,293</b>	<b>31,842</b>	<b>1.0000</b>	<b>1.0000</b>

a See <http://www.stat.si/doc/pub/rr776-2002/2/T02-01-00.htm> (2005/12/02).

b For ISSP data of the Great Britain and Northern Ireland were combined and weighted accordingly.

c Source: Deutschland in Zahlen 2002 (p. 126).

d After weighting with design weights (ISSP: V316; ESS: DWEIGHT).