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Abstract

Quantitative studies of the conditions and consequences of religious diversity are based mostly on indices that measure the variety of religious membership in a particular region. However, this line of research has become stagnant, and the question of whether diversity affects religious vitality remains unanswered. This article attempts to shed new light on the discussion by measuring religious diversity differently and capturing religious vitality independently of membership figures. In particular, it contrasts the Herfindahl-Hirschman Index based on membership proportions with a second measure of diversity: an index of organizational diversity. Conversely, the dependent variable religious vitality is measured not by using rates of participation in religious organizations but via the Centrality of Religion Scale. Based on ecological and individual level data of forty-three local regions in Finland, Germany, and Slovenia and using multilevel analysis, our results suggest that religious diversity is related to religious vitality. However, the nature of this association differs across subgroups.

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The debate about the consequences of religious diversity experienced a boom in the 1990s (cf. the summary by Chaves and Gorski 2001), but since then, silence has set in around social science research into one of the dominant structural principles of present-day religious culture. Although more and more research is focusing on the increasing pluralization of the religious environment in European countries (Baumann and Stolz 2007; Hero, Krech, and Zander 2008; Stausberg 2009), empirical research into the consequences of this development in Europe has only just started (Pollack, Tucci, and Ziebertz 2012; Roßteutscher 2009; Stolz 2005, 2009; Traunmüller 2011).

One reason for the neglect may be the confusion caused by contradictory regional and historical findings (Chaves and Gorski, 2001). More important has been the criticism expressed by Voas, Olson, and Crockett (2002) and Olson (2007) concerning the measurement of religious diversity. These authors demonstrated that the procedure that is used in most quantitative studies to illustrate the interdependencies between religious diversity and religious vitality is defective; correlating the Herfindahl-Hirschman diversity index with the figures for membership of religious organizations produces a systematic artifact. As a result, all the research findings that have been obtained in this way "will have to be re-evaluated" (Voas, Olson, and Crockett 2002: 213).[1]

This criticism of the previously used measurement has crippled the debate to such an extent that neither the proponents of the new paradigm, which emphasizes the mobilizing effects of increased religious competition, nor the advocates of the classical secularization paradigm have produced further empirical evidence. In his review of this debate, Olson (2007: 109) comes to the following conclusion: "Currently, there is no evidence that pluralism has any effect on religious involvement." It remains unclear whether this statement reflects the actual facts or is simply the lack of suitable analytical methods.

Now that the critique by Voas, Olson, and Crockett (2002) has undermined the existing work on the diversity-vitality hypothesis, researchers must try to develop a more secure methodological rationale. In particular, new empirical methods of operationalization are needed for assessing possible consequences of religious pluralization processes. This can happen in two ways: Either religious diversity

[1] A region's score on the Herfindahl-Hirschman Index is calculated by squaring the relative proportions of membership reported for each religious community, summing these quantities across all such communities represented in the region, and subtracting this total from 1. In substantive terms, this value indicates the probability that two affiliated individuals, chosen at random, will belong to different religious communities. However, the correlation of the Herfindahl-Hirschman Index with membership rates generates a tautology in the sense that it is a simple by-product of the size distributions of the denominations chosen (Voas, Olson, and Crockett 2002). The general principle is that when the larger denominations have the greatest size variation, correlations tend to be negative, but when the smaller denominations are more variable, correlations tend to be positive (Voas, Olson, and Crockett 2002).

has to be measured differently than was done previously or religious vitality must be captured independently of membership figures. The following analysis makes use of both strategies.

In measuring religious diversity, the analysis not only relies on the Herfindahl-Hirschman Index, based on membership proportions, which is frequently used in the literature (cf. Alesina et al. 2003; Wolf 2012), but also contrasts it with a second measure of diversity: an index for the measurement of organizational diversity. Besides avoiding the problem of tautological relationships, this second index also has a higher level of validity with regard to the theoretical debate. Indeed, both the hypothesis of the mobilizing effects of competition among religious organizations (Finke and Stark 1988) and the hypothesis of eroding plausibility structures resulting from competing worldviews in a pluralistic setting (Berger 1967) refer to the diversity of providers of religious products, that is, religious organizations.

On the other hand, in this analysis, the dependent variable of religious vitality is no longer measured by using rates of participation in religious organizations; instead, it is measured via the centrality of religion scale (Huber and Huber 2012), which measures the individual relevance of religious constructs in a representative sample of the population. The established hypotheses about the potential effects of religious diversity can now be operationalized by using these new ecological and individual-specific variables. Our results suggest that religious diversity is related to religious vitality. However, we found that the nature of this association differs across subgroups.

DATA AND METHODS

The Measurement of Religious Diversity

The measurement of the actual religious diversity in a particular area should not be restricted to approximate values that determine the variety of local religious orientations indirectly via a regulation index (e.g., Grim and Finke, 2011; Pickel 2011; Pollack 2003, 2009; Stolz 2005, 2009). Such an approach is based on the theoretical considerations of the market paradigm and assumes that a high degree of state regulation of the religious environment is associated with low religious diversity, while religious diversity is expected to flourish in countries where religious organizations are able to develop relatively independently of state favoritism or restriction. However, an index of this kind can illustrate only an institutional precondition for the development of religious diversity.

Measurements of diversity that, like the Herfindahl-Hirschman Index, are based on ecological data about religious organizations and their membership situations are essential for a precise operationalization (cf. Lieberson 1969; Wolf

2012). Table 1 lists two options for measuring religious diversity in its actual manifestations. The Adherence Diversity Index (ADI) relates to the diversity of religious memberships. An analogously structured index, the Organizational Diversity Index (ODI), allows us to measure the diversity of religious organizations independently of membership or participation figures.[2]

Table 1: Indices for Determining Religious Diversity[3]

Adherence Diversity Index (ADI)	ADI = $1 - \sum p_i^2$ (i = 1, …, n), where n is the number of religious traditions in a region and p_i is the percentage of the total religious population in a region belonging to religious tradition i.	The ADI indicates the extent to which the individuals in a particular region are distributed across the different religious traditions.
Organizational Diversity Index (ODI)	ODI = $1 - \sum s_i^2$ (i = 1, …, n), where n is the number of religious traditions in a region and s_i is the percentage of all religious organizations in a region belonging to religious tradition i.	The ODI indicates the extent to which the religious organizations in a particular region are distributed across different religious traditions.

Both measures of religious diversity are positively related but also maintain a certain autonomy; in the regions analyzed, the bivariate correlation between the two is 0.537 ($p < 0.01$). Differentiating between the two measures allows us to distinguish any influences that derive from the visibility of different religious population groups (ADI) from any influences that are ascribable to the regional variety of religious organizations and their marketing measures (ODI). Making reference to such supply-side effects is a central element of arguments concerning the stimulating effects of religious diversity.

In the present analysis, we calculate the two indices of diversity using the adherence rates (ADI) as well as the proportions of local religious organizations

[2] To understand the structure of the Organizational Diversity Index, suppose that there are 100 local religious organizations in a particular region, of which 70 adhere to Christianity, 10 to Islam, 10 to Judaism, and 10 to Eastern religions. The value of the ODI is then calculated by using the expression $1 - (0.7^2 + 0.1^2 + 0.1^2 + 0.1^2)$. The ODI for this situation is thus 0.48.

[3] The two measures of diversity, the ADI and the ODI, can be differentiated from one another to varying degrees in terms of their composition. In the present analysis, we distinguish between Christianity, Judaism, Islam, Eastern religions, and new religious movements. Tests showed that each further differentiation of the index by suborientation is associated with a decline in the index's statistical explanatory power.

(ODI) in twenty-two German, twelve Finnish, and nine Slovenian municipal districts, totaling forty-three subnational units. The selected districts included one urban and one rural region in each country. In Germany, the diversity values were collected in the city of Duisburg and the Märkischer Kreis region; in Finland, they were collected in Helsinki and the Etela Savo region; and in Slovenia, they were collected in Ljubljana and the Goriska region. In all forty-three districts, we carried out a full survey of the respective local religious organizations and commissioned a representative survey to capture the salience of religious attitudes in the respective populations (N = 3000 in each country). To test the connection between religious diversity and religious vitality, we then related the regional diversity values (ecological data) to the individual-level data on religiosity.

The Dependent Variable of Religious Vitality: From Participation Rates to the Concept of Centrality

Previous studies, whether carried out by representatives of the secularization paradigm or by proponents of the market paradigm, gave priority to measuring religious vitality by means of the figures that record membership in or affiliation with religious organizations. Measuring religious vitality by concentrating on affiliation might be a useful instrument to start with, as this makes it possible to display the quantity and spread of religious communities within the regions being analyzed. However, there are some problems with this procedure. First, there is an implicit assumption that the percentage of a population identifying with any religious group (membership rate) will be equal to the percentage of that population who actively participate in that religious group. However, religion is often practiced independently of membership (Davie 1994). Second, membership does not necessarily align with personal religious identity. Even when individuals belong to a religious organization, their religious identities are often influenced by various religious and spiritual traditions that differ from that organization's teachings.

Most important, we face the statistical problem to which Voas, Olson, and Crockett (2002) refer: Difficulties arise when the variable that measures vitality is based on the same indicator of religious involvement as the diversity index is. Therefore in this article, we concentrate on an instrument for measuring religious vitality that is arithmetically independent from the diversity indices that are used, because diversity statistics and vitality statistics should be "based on different types of involvement" (Voas, Olson, and Crockett 2002: 224). One has to look for an instrument that allows us to examine the extent of religious vitality beyond membership rates.

To operationalize religious vitality independently of membership rates, we measured the individual relevance of religious constructs of randomly sampled individuals as the dependent variable. An adequate measuring instrument for this

approach is the Centrality of Religiosity Scale (CRS) developed by Stefan Huber (Huber 2003, 2008, 2009; Huber and Huber 2012). The CRS is an instrument that is used to measure the influence of religious meanings on individuals' feelings, cognitions, and actions. More precisely, religious vitality is operationalized by the extent to which religious meanings shape people's mental, attitudinal, motivational, and behavioral characteristics. The concept of centrality overlaps with concepts such as intrinsic religious orientation (Allport 1976; Allport and Ross 1967), religious identity salience (Wimberly 1989), and the importance of religion. They all deal with the role of religion in personality development, which denotes the impact of religious content on subjective experience and behavior in general.

The CRS refers to the five core dimensions of religious life as defined by Stark and Glock (1968): the ideological, experiential, devotional (private practice), ritual (public practice), and intellectual dimensions.[4] In the CRS, each of these dimensions is equally weighted and operationalized by at least one indicator (see Table 2).[5]

The rationale of this measurement strategy is as follows. First, the core dimensions represent the most common social forms of religious life. Second, measuring these provides a representative cross section of the presence of religious meanings in the individual. Third, the centrality of religiosity can be derived from the frequency and intensity of the existence of religious meanings in the individual. The more central religious constructs are, the greater is their impact on a person's experience and behavior. High centrality means that a person's worldview and the way in which he or she leads his or her life are deeply shaped by religious meanings. In contrast, low centrality stands for a negligible influence of religious meanings on a person's attitudes and conduct of life.

[4] In the discussion of the multidimensional structure of religion, a minor shift can be observed from Glock (1962) to Stark and Glock (1968). Glock (1962) discussed the intellectual, ideological, experiential, ritual, and consequential dimensions as basic expressions of religion. Stark and Glock (1968) changed two aspects of this multidimensional structure of religion. First, they excluded the consequential dimension from their reflection of the inner structure of religious belief. Second, they split the former ritual dimension into prayer as private religious practice (i.e., the devotional dimension) and church attendance as public religious practice (i.e., the "new" ritual dimension).

[5] There are several versions of the CRS. In the first two versions, the general intensity of the five core dimensions was assessed by using two or three indicators. The complete scales are thus composed of ten or fifteen items. In our study, we used the third version of the CRS. This version requires seven items (Huber 2008, 2009; Huber and Huber 2012). Nevertheless, we used only five indicators, one item from each of the first five core dimensions, in calculating the scale value. One item for each of the dimensions of intellect, ideology, and public practice is sufficient to measure the respective general intensity of these dimensions. In contrast, the dimensions of private religious practice and religious experience require two items each to achieve an interreligiously balanced measurement of their respective intensity. In both of these cases, we used only the item with the higher value as the indicator for calculating the centrality score.

Table 2: Indicators Used in the Centrality of Religiosity Scale

Core Dimension	**Item**
Intellectual	"How often do you think about religious issues?"
Religious ideology	"To what extent do you believe in God or something divine?"
Pubic practice	"How often do you participate in religious services / synagogue services / congregational prayer / temple rituals / spiritual rituals or religious acts?"
Private practice	"How often do you pray?" "How often do you meditate?"
Experience	"How often do you experience situations where you have the feeling that God or something divine inter-venes in your life?" "How often do you experience situations in which you have the feeling that you are at one with everything?"

Note: All items are measured on a five-point scale and are adapted to a respondent's specific religiosity. For the dimensions of private practice and experience, we used only the indicator with the higher value in our calculations.

The use of the centrality scale as a measure of religious vitality offers an opportunity of avoiding the tautology problem mentioned above. In the present operationalization, the explanandum (religious vitality) and the explanans (religious diversity) are not only arithmetically independent of one another but also measured on different levels of aggregation; while religious diversity is calculated on the contextual level of subnational units, religious vitality is measured on the level of individuals living in the respective regions.[6]

[6] However, in their critical assessment of the options for measuring the connection between religious diversity and religious vitality, Voas, Olson, and Crockett (2002) and in particular Olson (2007) go one step further: "They advise against all analyses in which the target variable ['religious vitality'] is correlated with the percentages of members of religious organizations, even if they are not identical with these and have not been incorporated into the calculation of the index" (Wolf 2012: 23). Doubtless this also applies to the vitality measure of centrality, as here too there is a positive correlation with the regional percentages of the population linked to particular faiths. In our opinion, the recommendation expressed by Olson (2007) of also refraining from a correlation in this case goes too far; "here the empirical correlation is confused with analytical dependency" (Wolf 2012: 23). Thus the calculation below of the correlation between religious diversity and religious vitality is based on the following deliberation: The correlation of regional diversity (of membership and of organizations) with the dependent variable of centrality is

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On the basis of these methodological considerations, we will now test the connection between religious diversity and religious vitality. To answer the question of what the impacts of religious diversity are, we will start with a simple bivariate analysis on the regional level. We will then take the hierarchical structure of our data into account and estimate multilevel models relating religious diversity to individuals' religiosity while controlling for further contextual and individual-level variables. In a final step, we will assess subgroup differences in the effect of religious diversity. In all steps, we differentiate between adherence diversity (ADI) and organizational diversity (ODI) as explanatory variables, while religious vitality as measured by the concept of centrality is the dependent variable.

Bivariate Correlations

A glance at the correlation between the diversity measures and the regional mean centrality scores represented in Figure 1 shows that the traditionally used ADI has a negative correlation with religious vitality. Increased religious diversity is associated with lower centrality of religious attitude patterns ($r = -0.66$, $p < 0.01$). There is thus no indication of a vitalizing force being exerted by religious diversity, and religious vitality appears to be a characteristic of the regions in which there is less religious diversity. The negative correlation between religious diversity and religious vitality is almost as clear when we correlate the ODI with the regional levels of religiosity ($r = -0.43$, $p < 0.01$). Thus an increased diversity of religious organizations goes hand in hand with a declining relevance of religious attitude patterns. The hypothesis that religious diversity exerts a mobilizing effect is not supported by the bivariate analysis.

Although most related studies remain at this basic level of analysis, it goes without saying that the correlations shown in Figure 1 do not as yet exhibit any causal relationships between the variables that interest us here: diversity and vitality. Hence, for example, it is obvious that the independent variable diversity and the dependent variable centrality are jointly exposed to the influence of the factor population density; that is, the urban/rural dimension influences both socialization patterns and religious motivations and also influences the conditions of religious pluralization. The findings of previous empirical research into pluralization (Breault 1989; Christiano 1987; Hero, Krech, and Zander 2008; Jordan 2007;

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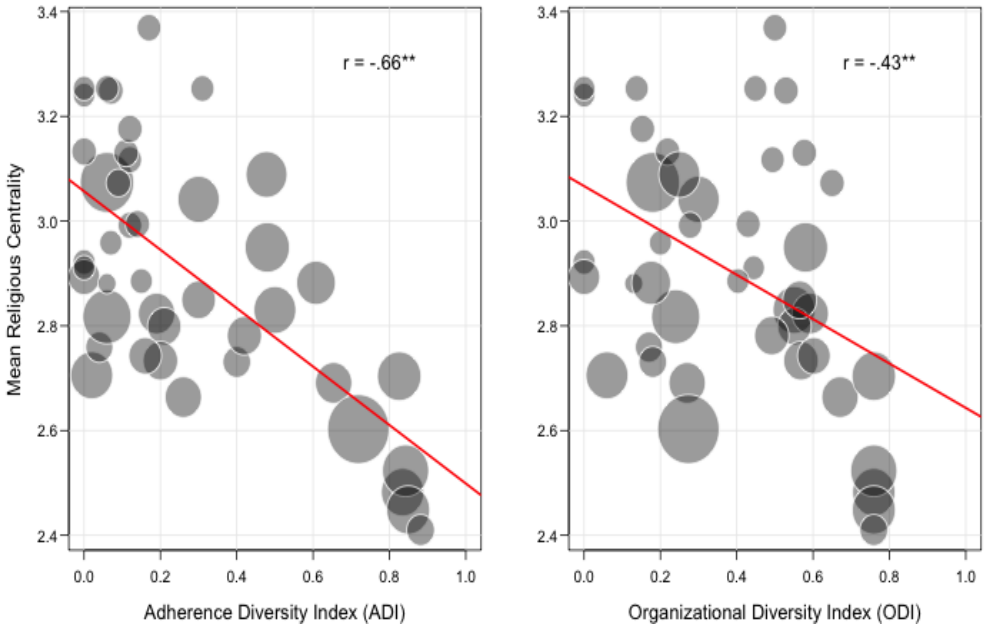
statistically meaningful because the two variables are arithmetically independent of one another. The regional diversity of membership and of organizations was collected as ecological data, while the regional centrality values were determined as individual-specific data via a representative population sample.

Ogburn and Duncan 1964; Singleton 1975) already point in this direction. There is a strong correlation between religious diversity and urbanization. In the present study, too, it is clear that the more densely populated a region is, the higher the various diversity indices are. To prevent the correlations listed above from indirectly reflecting the influence of the urbanization factor as well other religious and extrareligious influences, we will introduce control variables into the calculations; thus we shall try to determine the relative importance of religious diversity in relation to the dependent variable of the centrality of religion. The next section will also make use of a multilevel analysis.

Figure 1: Bivariate Correlations (*N* = 43)



Note: The size of each bubble is proportional to the number of respondents in the respective region. ** $p < 0.01$.

Does Diversity Matter? A Comparison of the Effects of Religious and Extrareligious Variables

Irrespective of the split into different theoretical camps, the debate about the correlation between religious diversity and religious vitality is based on the strong assumption that the pluralization of religious products on offer is one of the driving forces of religious change. Thus according to some proponents of the market paradigm, the lack of variety of religious supply in Europe is a major determinant of the decline in religiosity (Stark and Iannaccone 1994). At the same time, the variety of descriptive baseline studies makes it clear that religious diversity and

the question of the acceptance of religious pluralism have become a booming topic in European religious research. Given the effort that has gone into publishing these studies, it is high time to ask the overarching question of whether the pluralization process has any influence at all in comparison with other determinants of religious change. To review the relative weight of pluralization in this way, we can make use of a comparison with other potential determinants of religious behavior and action.

For this purpose, we collected a series of control variables of both a religious and a nonreligious nature during the surveys and relate them to the dependent variable religious vitality in the following multilevel analyses. Since in the present study, religious diversity is examined as an ecological variable, in the multilevel analysis it will be contrasted with other ecological variables that can also exert a potential influence on the dependent variable of religious vitality. These include the country-specific influence (Germany, Finland, and Slovenia) and the urbanization factor. In the regional surveys, we collected data on the respondents' age, gender, education level, income details, and marital status. It can be assumed that these individual-level variables are of potential significance for the centrality of religious attitudes. Finally, with regard to personal religious characteristics, we distinguish between three groups: religious majority, religious minority and the nonaffiliated group.

Adherence Diversity and Organizational Diversity in Their Influence on Centrality

The multilevel analysis proceeds in several steps to systematically determine the explanatory potential of the different variables. The first model examines the correlation between the diversity indices and the dependent variable religious vitality, now taking the hierarchical structure of the data into account, and serves as a point of reference for the subsequent models. The second and third models incorporate further ecological variables into the analysis: country dummies and degree of urbanization. We ask whether, after we control for these factors, the diversity measures still retain an independent effect on religious vitality. The fourth and fifth models then introduce individual-level variables, both exogenous (age, gender, education level, income, partnership) and endogenous (religious minority status and no affiliation) to the religious field. The sixth model integrates the entire spectrum of control variables. In this way, we can determine the relative weights of ecological and personal variables. All model specifications will be estimated twice, first with the ODI as the primary explanatory variable and then with the ADI.

Starting with the results for the ODI, we see that the evidence derived from the bivariate correlation of religious diversity and religious vitality is of only lim-

ited scope (see Table 3). The more extensively extrareligious and religious control variables are incorporated into the models, the more religious diversity loses relative significance. The negative effect of religious diversity remains stable up to model 2, in which the country-specific influence is taken into account. However, as soon as we consider the weakening influence that the environmental variable urbanization exerts on religious vitality in model 3, the effect of religious diversity disappears. Urban life leads to a reduced centrality of religious attitude patterns (−0.25, $p < 0.01$) and dominates both the effects of religious diversity and the influence of the different countries.

Table 3: Organizational Diversity and Religious Vitality

		Model 1	**Model 2**	**Model 3**	**Model 4**	**Model 5**	**Model 6**
Religious ecological factor	ODI	−0.43** (0.14)	−0.45** (0.13)	−0.04 (0.15)	−0.46** (0.13)	−0.14 (0.10)	0.02 (0.12)
Extra-religious ecological factors	Finland		−0.22** (0.07)	−0.09 (0.06)			−0.04 (0.05)
	Slovenia		−0.31** (0.07)	−0.30** (0.06)			0.09** (0.05)
	Urbanization			−0.25** (0.06)			−0.18** (0.05)
Individual extra-religious factors	Age/10				0.07** (0.01)	0.09** (0.01)	0.09** (0.01)
	Sex				0.28** (0.02)	0.24** (0.02)	0.24** (0.02)
	Occupational education				−0.02 (0.03)	−0.00 (0.03)	0.00 (0.03)
	High school				−0.03 (0.03)	0.04 (0.03)	0.04 (0.03)
	University degree				−0.07 (0.04)	0.03 (0.03)	0.03 (0.03)
	Economic situation				−0.02 (0.01)	−0.00 (0.01)	−0.00 (0.01)
	No partner				−0.04 (0.03)	−0.02 (0.03)	−0.02 (0.03)
Individual religious factors	Adherence to a religious minority					0.71** (0.04)	0.71** (0.04)
	No affiliation					−0.90** (0.02)	−0.91** (0.02)

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Intercept	3.06** (0.06)	3.20** (0.07)	3.11** (0.06)	2.65** (0.09)	2.53** (0.08)	2.56** (0.08)
SD residual	1.00	1.00	1.00	0.98	0.89	0.89
SD intercept	0.20	0.15	0.12	0.19	0.13	0.09
No. of observations	8825	8825	8825	8611	8611	8611
No. of contexts	43	43	43	43	43	43
Deviance	25,206	25,184	25,169	24,184	22,526	22,502

Note: Results from hierarchical linear models for religious centrality; unstandardized coefficients with standard errors in parentheses.
* $p < 0.05$, ** $p < 0.01$.

As model 4 shows, personal characteristics such as age and gender have a significant influence on the religious centrality of an individual. The negative influence of religious diversity on the centrality of religion remains statistically significant (−0.46, $p < 0.01$) However, this changes in model 5, which controls for individuals' religious affiliation; in this model, the effect disappears. As was expected, not only membership in small religious organizations (0.71, $p < 0.01$) but also general nonmembership (−0.90, $p < 0.01$) carries special weight with regard to the centrality of religion. In the summary model 6, urbanization (−0.18, $p < 0.01$), age (0.09, $p < 0.01$), gender (0.24, $p < 0.01$) religious minority status (0.71, $p < 0.01$), and nonmembership (−0.91, $p < 0.01$) are the most important variables influencing general religiosity.

The models in Table 4 use a different measure of diversity. Instead of organizational diversity, diversity of membership as measured by the ADI is used as the primary explanatory variable. The two measures of diversity are highly correlated ($r = 0.537$, $p < 0.01$), so the findings hardly deviate from the ones above.

Model 1 shows that diversity of membership (ADI) yields somewhat stronger effects overall than does organizational diversity (ODI). However, the diversity of membership also loses statistical significance as soon as we take urbanization into account. As is evident from model 3, religious vitality is negatively influenced by the urban living environment; that is, urban life leads to a reduced centrality of religion (−0.26, $p < 0.01$). In model 4, the personal characteristics of age (0.08) and gender (0.28) display a positive influence on religious vitality, while religious diversity still carries weight. As model 5 shows, the influence of age and gender (0.09 and 0.24, respectively) holds when religious variables—membership of small religious organizations (0.71) and general nonmembership (−0.90)—are examined for their effect on the centrality of religious attitude patterns. The effect

of membership diversity, however, loses statistical significance. In model 6, urbanization, age, gender, and affiliation with religious organizations are the most important influencing variables with respect to religious centrality, while religious diversity does not seem to matter.

Table 4: Adherence Diversity and Religious Vitality

		Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Religious ecological factor	ADI	−0.55** (0.10)	−0.57** (0.19)	0.00 (0.20)	−0.58** (0.09)	0.01 (0.08)	0.02 (0.16)
Extra-religious ecological factors	Finland		−0.11 (0.06)	−0.08 (0.05)			−0.04 (0.04)
	Slovenia		−0.02 (0.13)	−0.030* (0.12)			0.08 (0.09)
	Urbanization			−0.26** (0.06)			−0.18** (0.05)
Individual extra-religious factors	Age/10				0.08** (0.01)	0.09** (0.01)	0.09** (0.012)
	Sex				0.28** (0.02)	0.24** (0.02)	0.24** (0.02)
	Occupational education				−0.02 (0.03)	0.00 (0.03)	0.00 (0.03)
	High school				−0.02 (0.03)	0.03 (0.03)	0.04 (0.03)
	University degree				−0.06 (0.04)	0.03 (0.03)	0.04 (0.03)
	Economic situation				−0.02 (0.01)	−0.00 (0.03)	−0.00 (0.01)
	No partner				−0.04 (0.03)	−0.02 (0.02)	−0.02 (0.03)
Individual religious factors	Religious minority					0.71** (0.04)	0.71** (0.04)
	No affiliation					−0.90** (0.02)	−0.91** (0.02)
	Intercept	3.05** (0.04)	3.09** (0.05)	3.10** (0.04)	2.62** (0.08)	2.48** (0.07)	2.56** (0.07)
	SD residual	1.00	1.00	1.00	0.98	0.89	0.89

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
SD intercept	0.16	0.16	0.12	0.15	0.13	0.09
No. of observations	8825	8825	8825	8611	8611	8611
No. of contexts	43	43	43	43	43	43
Deviance	25,191	25,188	25,169	24,164	22,528	22,502

Note: Results from hierarchical linear models for the religious centrality; unstandardized coefficients with standard errors in parentheses.
* $p < 0.05$, ** $p < 0.01$.

Subgroup Analyses

The above results show that, generally speaking, the diversity of the religious environment is largely inconsequential in determining the religiosity of the local population. Now we will examine whether this finding also applies to population groups that are in a particular position with respect to religious vitality, namely, religious minorities and people with no religious affiliation. The models shown in Table 5 therefore include interaction terms between religious diversity and individual religious affiliation (religious majority, religious minority, and nonaffiliated) to examine how adherence diversity (model 1) and organizational diversity (model 2) affect the centrality of religion for each of these subgroups.

Table 5: Interaction Effects Between Religious Diversity and Religious Minority Status and Nonaffiliation

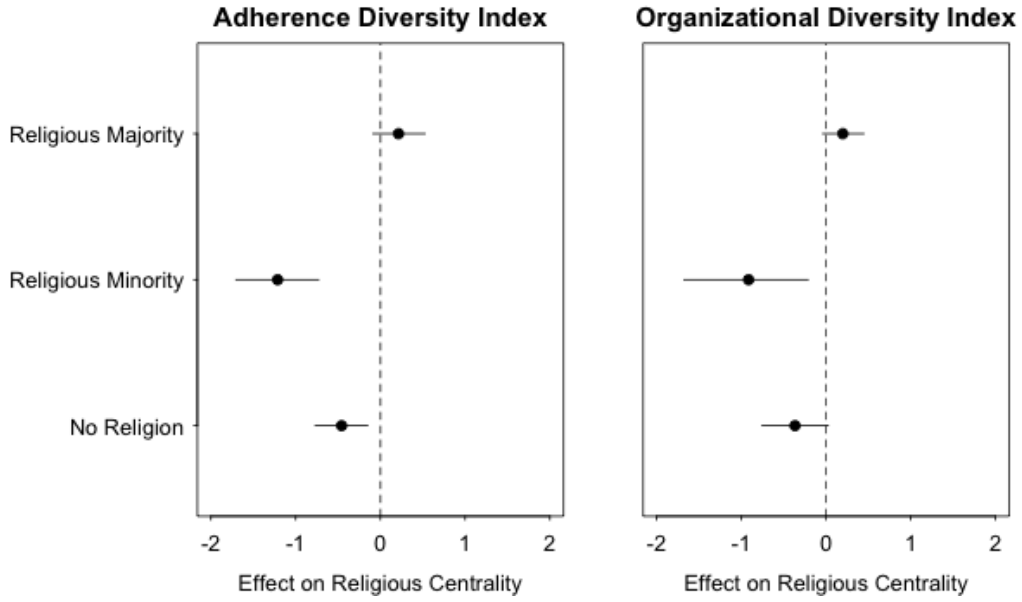
	Model 1	Model 2
ADI	0.21 (0.15)	
ODI		0.20 (0.13)
Religious minority	0.99** (0.08)	1.04** (0.14)
No religion	−0.71** (0.05)	−0.75** (0.07)
Religious minority × ADI	−1.42** (0.23)	
Religious minority × ODI		−1.09** (0.38)

	Model 1	**Model 2**
Religious minority × urbanization	0.23 (0.12)	0.18 (0.18)
No affiliation × ADI	−0.67** (0.09)	
No affiliation × ODI		−0.55** (0.21)
No affiliation × urbanization	0.17** (0.05)	0.24* (0.10)
Controls	Yes	Yes
Intercept	2.50** (0.07)	2.50** (0.08)
SD residual	0.89	0.88
SD intercept	0.09	0.10
SD religious minority	0.18	0.32
SD no religion	0.05	0.16
No. of observations	8611	8611
No. of contexts	43	43
Deviance	22,393	22,425

Note: Results from hierarchical linear models for the centrality of religion with varying slopes for religious minority and no religion; unstandardized co-efficients and standard errors in parentheses. The models also control for age, sex, education, economic situation, and having a partner as well as urbanization and country (full results available upon request); all random effects are fully unstructured, that is, allowed to correlate.
* $p < 0.05$, ** $p < 0.01$.

The subgroup analysis shows two significant interaction effects. In religious minorities, an increase in diversity leads to a weakening of religious vitality. Both adherence diversity (−1.42, $p < 0.01$) and organizational diversity (−1.09, $p < 0.01$) reduce the religiosity as measured by the centrality scale. The results for the part of the population that does not belong to any religious community point in the same direction. Here, too, increasing diversity in the religious environment (ADI: −0.76, $p < 0.01$, ODI: −0.55, $p < 0.01$) leads to a weakening of religious attitudes and activity (see also Figure 2). These effects remain demonstrable even when we control for the influences of country, urbanization, age, gender, income, and education. Thus at least for the subgroups mentioned, we can claim a secularizing effect for religious diversity.

Figure 2: The Effects of Religious Diversity for Different Subgroups



Note: Coefficients and simulated 95 percent confidence intervals are shown; the figure is based on the hierarchical linear models in Table 5.

The secularizing effect induced by religious diversity has differing degrees of intensity; the extent to which the diversity of the religious environment has a secularizing effect seems to depend on the level of centrality in the respective group. For religious minorities that have a relatively high level of centrality, the secularization potential is greater than that for the population group that is not affiliated with any religious organization. Because the latter group is characterized by a relatively low level of centrality, it has less potential for further secularization.

CONCLUSION

Our findings put the theoretical discussion about the significance of religious diversity into perspective. If, as in most studies to date, we examine the general influence of religious diversity, then hardly any effects on religious vitality can be demonstrated; in comparison to other sociostructural and religious factors, the diversity of the religious environment appears to be only a weak predictor of varying religious vitality. In the European regions that we surveyed, religious diversity (measured as an ecological variable) is not one of the dominant determining factors of individual religious vitality. The results thus confirm previous European findings (Gladkich 2012; Stolz 2005, 2009), which demonstrated

that in comparison to other factors of religious change, religious diversity is of subordinate significance.

However, a subgroup analysis reveals that different population groups react to the diversity of the religious environment to varying degrees. The form of their religious affinity has been shown to be an important moderating criterion. Religious diversity and religious vitality are differently related, depending on the subgroup considered. While no effects can be demonstrated for the religious majority, a decline in religious attitudes and convictions is visible in religious minorities and the nonreligious population.

The theoretical debate between secularization and supply-side arguments must therefore be stated more precisely. With regard to the creation of further hypotheses in the sociology of religion, we must ask more closely in which social contexts and for which population groups vitalization and/or secularizing effects can be expected. The present study provides the first pointers toward answering this question.

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Appendix A: Description of Control Variables

Variable	Description
Contextual-Level Controls	
Country	0: Germany 1: Finland 2: Slovenia
Urbanization	0: Rural area 1: Urban area
Individual-Level Controls	
Age	In 10-year intervals
Sex	0: Male 1: Female
Education	What is your highest educational qualification? 0: CSE or equivalent 1: GCSE or equivalent 2: A-level equivalent, baccalaureate, university entrance qualification or equivalent 3: University degree or equivalent
Economic Situation	Which of the following statements best describes your family situation? 1: We live in poverty. 2: We experience a continuous shortage of essential goods. 3: We have to control our budget to a very great extent, and this also applies to expenditure on food. 4: We have to control our budget to a great extent in order to manage; we have to restrict our expenditure on clothes and similar items. 5: We have to control our budget to a slight extent; we have to restrict our expenditure on unnecessary items, such as luxury goods. 6: We do not go short of anything and do not have to restrict our expenditure in any way.
Partner	0: Yes 1: No
Religious Affiliation	0: Religious majority 1: Religious minority 2: No religious affiliation