
RESEARCH

Consequences of a Multidimensional
Approach to Religion for the
Relationship Between Religiosity and
Value Priorities

Johnny R. J. Fontaine
*Department of Psychology
Universiteit Gent, Belgium
Katholieke Universiteit Leuven, Belgium*

Bart Duriez
*Department of Psychology
Katholieke Universiteit Leuven, Belgium*

Patrick Luyten
*Post-Doctoral Fellow of the Fund for Scientific Research
Flanders (F.W.O., Belgium)
Department of Psychology
Katholieke Universiteit Leuven, Belgium*

Jozef Corveleyn and Dirk Hutsebaut
*Department of Psychology
Katholieke Universiteit Leuven, Belgium*

Based on both a theological and a sociopsychological analysis, the goals of Roman Catholic religion were identified and translated in terms of Schwartz's (1992) 10

Requests for reprints should be sent to Johnny R. J. Fontaine, Universiteit Gent, Faculteit Psychologie en Pedagogische Wetenschappen, Henri-Dunantlaan 2, B-9000 Gent, Belgium. E-mail: johnny.fontaine@ugent.be

value types of Hedonism, Stimulation, Self-Direction, Universalism, Benevolence, Tradition, Conformity, Security, Power, and Achievement. The relations between these value types and Wulff's (1991, 1997) two religiosity dimensions of Exclusion versus Inclusion of Transcendence and Literal versus Symbolic, as measured by the Post-Critical Belief scale (Fontaine et al., 2003), were tested in seven samples ($N = 1695$) gathered in Flanders (Belgium). The value pattern associated with the Exclusion versus Inclusion of Transcendence dimension was characterized by a conflict between Hedonism, Stimulation, and Self-Direction on one hand, and Tradition and Conformity on the other hand. The value pattern associated with the Literal versus Symbolic dimension was characterized by a conflict between Security and Power on one hand, and Universalism and Benevolence on the other hand.

Values are assumed to be central aspects of the self-concept that can be considered as general beliefs people hold about desirable and undesirable modes of conduct and end states of existence (Feather, 1994; Rokeach, 1973). Values are thought to be organized into value systems that would function as standards of "oughts" and "shoulds," and would determine, at least to some extent, people's attitudes and behaviors. Values and value systems are thought to be transmitted by different social institutions. One such social institution is religion (Rokeach, 1969a). The importance attributed to religion as a transmitter of values is witnessed in the debate on the so-called loss of values in Western societies in general and Western Europe in particular (Fontaine, Luyten, & Corveleyn, 2000)—a loss of values that is attributed by many scholars of different fields to a decline in religiosity. However, in order to be able to have a decent debate about this issue, first of all, it is important to answer the question whether, at the level of psychological functioning, there actually is a relationship between religiosity and values, and if so, what kind of values and values systems are associated with being religious or not.

The empirical study of a religiosity-values relationship has to be credited to Rokeach (1968, 1969a, 1969b), who asked participants to rank 18 instrumental and 18 terminal values and compared religious and non-religious participants with respect to the average rank order of each value. He found religious participants to estimate certain values (e.g., salvation, forgiveness, and obedience) higher and other values (e.g., independence, pleasure, intellect, and logic) lower than non-religious participants. Most of the research on the religiosity-values relationship was inspired by this approach (e.g., Lau, 1989; Paloutzian, 1981).

However, this approach shows two shortcomings. First, because values are treated as independent entities, the multitude of relationships with religiosity leads to poorly organized results. A solution to this problem was proposed by Schwartz (1992), who has shown that, within the value domain, 10 different value types can be distinguished that are organized in a circular fashion. Using these value types, Schwartz and Huisman (1995) found an integrated pattern of religiosity-values relationships in four different religious groups (Jews, Protestants, Catholics, and Orthodox). Second, proponents of Rokeach's approach often treated religion as a

unidimensional construct or limited their research to comparing religious denominations. Researchers that did regard religiosity as multidimensional (e.g., Tate & Miller, 1971) relied on distinctions such as intrinsic versus extrinsic religiosity (Allport & Ross, 1967), which has been severely criticized on both conceptual and psychometric grounds (Batson, 1976; Kirkpatrick & Hood, 1990). However, recently, the construction of the Post-Critical Belief scale (Duriez, Fontaine, & Hutsebaut, 2000; Fontaine, Duriez, Luyten, & Hutsebaut, 2003; Hutsebaut, 1996, 1997), which operationalizes Wulff's (1991, 1997) two-dimensional model of approaches to religion, opened new perspectives for studying religiosity's values relationships. According to Wulff, interindividual differences in religiosity can be differentiated along two dimensions (Exclusion vs. Inclusion of Transcendence and Literal vs. Symbolic). The present study investigates how interindividual differences in these dimensions relate to value priorities in seven Flemish (Belgian) samples.

First, Schwartz's (1992) value theory is presented. Then, the theoretical framework of Wulff (1991, 1997) and the Post-Critical Belief scale (Fontaine et al., 2003), which operationalizes Wulff's concepts, is introduced. Finally, on the basis of both a theological and a sociopsychological analysis, predictions are made concerning the relationships between Exclusion versus Inclusion of Transcendence and Literal versus Symbolic on one hand and Schwartz's value types on the other hand.

SCHWARTZ'S VALUE THEORY

Schwartz (1992) defined a value as a transsituational goal that varies in importance as a guiding principle in one's life, and developed a theory about the internal structure of the value domain that received empirical support in over 40 countries (Schwartz & Sagiv, 1995). Ten different value types, each characterized by its own motivational goal, were identified: Hedonism, Stimulation, Self-Direction, Universalism, Benevolence, Tradition, Conformity, Security, Power, and Achievement (see Table 1). According to Schwartz (1992), these value types can be organized in a two-dimensional circular circumplex structure based on a theoretical analysis of the compatibilities and conflicts between their respective motivational goals (see Figure 1). Value types with compatible goals are positively related and emerge adjacent to one another in the two-dimensional representation. Value types with conflicting goals are negatively related and are situated opposite one another.

Schwartz (1992) identified three main conflicts within this value structure. The first is a conflict between openness to change and conservation, which opposes value types referring to novelty and personal autonomy (Stimulation and Self-Direction) to value types leading to stability, certainty and social order (Tradition, Conformity, and Security). The second is a conflict between self-enhancement and self-transcendence, which opposes value types referring to the pursuit of selfish interests (Achievement

TABLE 1
Definitions of Motivational Types of Values in Terms of Their Goals and the
Values That Represent Them

Hedonism	Pleasure & sensuous gratification for oneself (pleasure, enjoying life, self-indulgence).
Stimulation	Excitement, novelty, and challenge in life (daring, a varied life, an exciting life).
Self-Direction	Independent thought and action-choosing, creating, exploring (freedom, independent, choosing own goals, creativity, curious) [self-respect].
Universalism	Understanding, appreciation, tolerance, and protection for the welfare of all people and for nature (broad-minded, social justice, equality, a world at peace, a world of beauty, unity with nature, protecting the environment, wisdom).
Benevolence	Preservation and enhancement of the welfare of people with whom one is in frequent personal contact (helpful, honest, forgiving, loyal, responsible) [true friendship, mature love].
Tradition	Respect, commitment, and acceptance of the customs and ideas that Traditional culture or religion provide (humble, devout, respect for tradition, moderate, accepting my portion in life) [detachment].
Conformity	Restraint of actions, inclinations, and impulses likely to upset or harm others and violate social expectations or norms (obedient, politeness, honoring parents and elders, self-discipline).
Security	Safety, harmony and stability of society, of relationships, and of self (national security, social order, family security, clean, reciprocation of favors) [sense of belonging, healthy].
Power	Social status and prestige, control or dominance over people and resources (social power, authority, wealth, preserving my public image) [social recognition].
Achievement	Personal success through demonstrating competence according to social standards (successful, capable, ambitious, influential) [intelligent].

Notes. From "Value Priorities and Religiosity in four Western Religions," by S. H. Schwartz and S. Huismans, 1995, *Social Psychology Quarterly*, June p. 90. Copyright 1995 by the American Sociological Association. Published with permission. As in Schwartz and Huismans (1995), values in square brackets were not used in computing indexes for value types.

and Power) to value types promoting the welfare of both close and distant others (Benevolence and Universalism). The third is a conflict between values referring to the gratification of one's desires (Hedonism) and values implying self-restraint and the acceptance of external limits (Tradition and Conformity; see Figure 1).

By making two additional assumptions about the value domain, namely the assumption that all value types are situated on a perfect circle and the assumption that all value types are situated at an equidistant position from one another, it is possible to construct integrated hypotheses about how external variables (e.g., religiosity) should correlate to the value types.¹ The correlations with an external variable should follow a sinusoid pattern. They should decrease from the most positively related to the most negatively related value type and increase from the most

¹Albeit research on the internal structure of the value domain does support a circular ordering of the value types, this research does not support the assumption that the value types are situated on equidistant positions on a perfect circle (Schwartz, 1992; Schwartz & Huismans, 1995). Nevertheless, this assumption does not imply a substantial deviation from the observed structure.

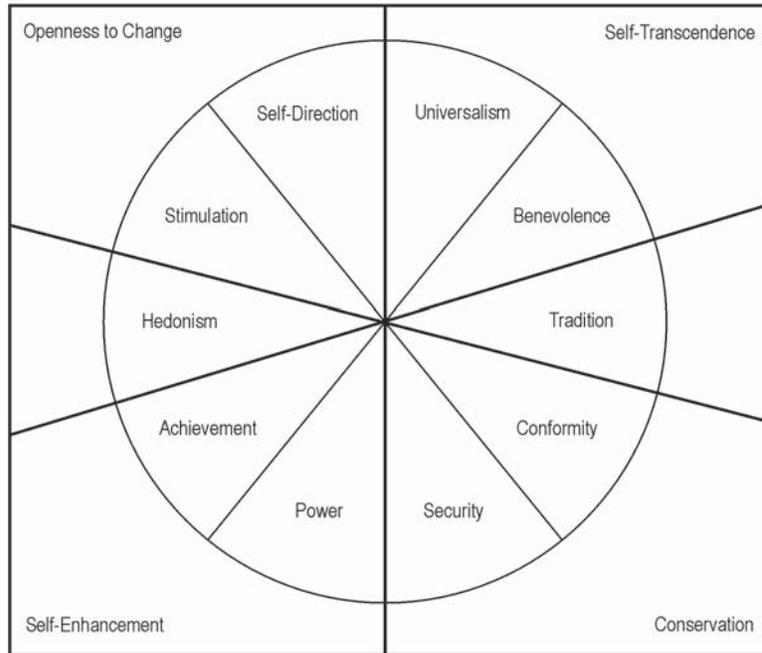


FIGURE 1 Theoretical Model of Relationships Between Types of Values. Adapted from "Value Priorities and Religiosity in four Western Religions," by S. H. Schwartz and S. Huisman, 1995, *Social Psychology Quarterly*, June p. 91. Copyright 1995 by the American Sociological Association. Adapted with permission.

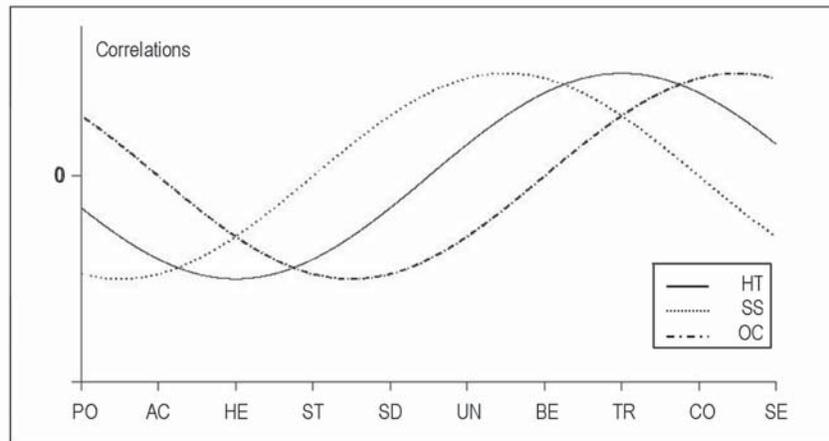


FIGURE 2 Hypothetical Model of Correlations Between Religiosity and the Value Types. PO = Power, AC = Achievement, HE = Hedonism, ST = Stimulation, SD = Self-Direction, UN = Universalism, BE = Benevolence, TR = Tradition, CO = Conformity, SE = Security, HT = Hedonism vs. Tradition, SS = Self-Enhancement vs. Self-Transcendence, OC = Openness vs. Conservation.

negatively related to the most positively related value type. In this way, three possible patterns of correlations with the value types can be defined that relate to the major conflicts in the value domain.

First, an external variable that correlates most positively to Tradition should relate to the conflict between Hedonism and Tradition. In that case, one can also expect that variable to correlate most negatively to Hedonism, with correlations decreasing from Tradition over Benevolence, Universalism, Self-Direction, and Stimulation to Hedonism and increasing from Hedonism over Achievement, Power, Security and Conformity to Tradition (see Figure 2 & Table 2). This pattern of relationships will be referred to as the Hedonism versus Tradition pattern.

Second, an external variable that correlates most positively to the self-transcendence value types Benevolence and Universalism should relate to the conflict between self-transcendence and self-enhancement. In that case, one can expect that variable to correlate most negatively to the self-enhancement value types Power and Achievement, with correlations decreasing from Universalism over Self-Direction, Stimulation and Hedonism to Achievement and increasing from Power over Security, Conformity and Tradition to Benevolence (see Figure 2 & Table 2). This pattern of relationships will be referred to as the Self-Enhancement versus Self-Transcendence pattern.

Third, an external variable that correlates most positively to the conservation value types Conformity and Security should relate to the conflict between conservation and openness to change. In that case, one can also expect that variable to correlate most negatively to the openness to change value types Stimulation and Self-Direction, with correlations decreasing from Security over Power, Achievement and Hedonism to Stimulation and increasing from Self-Direction over Universalism, Benevolence and Tradition to Conformity (see Figure 2 & Table 2). This pattern of relationships will be referred to as the Openness versus Conservation pattern.² The present study investigates which of these value patterns best describes the value patterns associated with Wulff's (1991, 1997) religiosity dimensions.³

²The Hedonism versus Tradition pattern closely corresponds to the value conflict between Hedonism on one hand and Tradition and Conformity on the other hand, and the Openness versus Conservation pattern closely corresponds to the conflict between Self-Direction and Stimulation on one hand and Tradition, Conformity, and Security on the other hand (see Schwartz, 1992). However, as Figure 2 shows, it is possible to disentangle both value conflicts more sharply by contrasting Hedonism with Tradition only and Self-Direction and Stimulation with Conformity and Security only.

³The predicted relationship between each of the 3 value patterns and the 10 value types was computed as the sine of the angle between the point on the circle representing the most positive relationship and each of the points representing the ten value types. The point on the circle representing the most positive relationship coincides with the value type Tradition for the Hedonism versus Tradition pattern, falls in between the value types Universalism and Benevolence for the Self-Enhancement versus Self-Transcendence pattern, and in between the value types Conformity and Security for the Openness versus Conservation pattern.

MULTIDIMENSIONAL APPROACH TO RELIGION

Wulff (1991, 1997) has constructed a comprehensive framework to identify various possible approaches to religion. According to Wulff, all possible approaches to religion can be summarized along two bipolar dimensions (see Figure 3). The Exclusion versus Inclusion of Transcendence dimension specifies the degree to which the objects of religious interest are granted participation in a transcendent reality. The Literal versus Symbolic dimension indicates the degree to which the expressions of religion are interpreted literally or symbolically. These two dimensions define four basic attitudes toward religion, which Wulff labeled Literal Affirmation, Literal Disaffirmation, Reductive Interpretation, and Restorative Interpretation (see Figure 3). The upper left quadrant, Literal Affirmation, represents a position most clearly embodied by religious fundamentalism. The lower left quadrant, Literal Disaffirmation, represents a disaffirmation of the religious realm, which is understood literally rather than symbolically. The lower right quadrant, Reductive Interpretation, represents a disaffirmation of the religious realm, in which a privileged

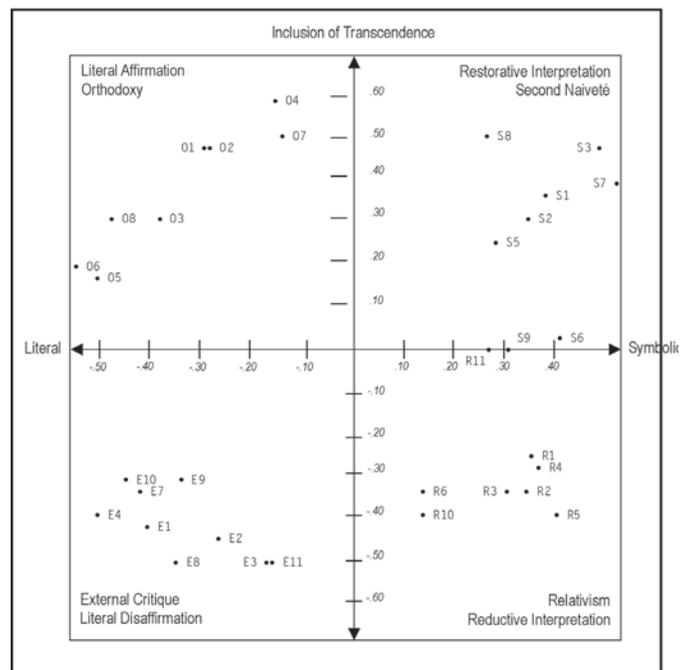


FIGURE 3 Integration of the Two-Componential Consensus Representation of the Post-Critical Belief Items (see Appendix) in Wulff's (1991, 1997) Theoretical Model (after Fontaine et al., 2003).

perspective on the true meaning of religion's myths and rituals is claimed. The upper right quadrant, Restorative Interpretation, represents a reaffirmation of the religious realm, in which one tries to encompass the reductive interpretations in order to find the symbolic message of religion. Building on Wulff's theory, Hutsebaut and his colleagues (Duriez et al., 2000; Hutsebaut, 1996, 1997) constructed the Post-Critical Belief scale, which captures four approaches to Christian religion that map onto Wulff's scheme: Orthodoxy, External Critique, Relativism, and Second Naiveté (see Duriez et al., 2000). These approaches equal Literal Affirmation, Literal Disaffirmation, Reductive Interpretation, and Restorative Interpretation respectively (see Figure 3). In a recent study in 16 samples ($N = 4648$), the Post-Critical Belief scale was shown to reliably capture the dimensions Exclusion versus Inclusion of Transcendence and Literal versus Symbolic (Fontaine et al., 2003).

RELIGIOSITY DIMENSIONS AND VALUE CONFLICTS

In line with Schwartz and Huisman's (1995), predictions about the relationships between the religiosity dimensions and value priorities will be based on both a theological and a sociopsychological analysis. However, our analyses differ from the analyses of Schwartz and Huisman in that we work with a multidimensional conceptualization of religiosity, and in that our theological analysis is restricted to Roman Catholicism in a Flemish-Belgian context, because all of the samples that were used in this study were gathered among Flemish speaking persons in Flanders-Belgium.

Exclusion Versus Inclusion of Transcendence

From a theological point of view, the orientation toward and the development of a personal relationship with God forms a central dimension in Roman Catholicism (e.g., Niebuhr, 1935; Vergote, 1988, 1997a). This dimension, which can be referred to as the vertical dimension of Roman Catholicism, implies acceptance of and submission to a divine authority. Schwartz's Tradition value type, encompassing items such as "devout" and "accepting one's portion in life," represents this orientation the best. Thus, based on this analysis, Exclusion versus Inclusion of Transcendence should relate most clearly to the Hedonism versus Tradition conflict. However, Roman Catholic theology also stresses the importance of a horizontal dimension that refers to universal brotherly love and care for one's fellow man. This universal brotherly love is considered to be of central importance, not only because it is regarded as a divine commandment, but also because it is seen as a privileged way of meeting God (Rahner, 1976). This universal brotherly love is best represented by the Self-Transcendence value types Benevolence and Universalism. Thus, from this point of view, Exclusion versus Inclusion of Transcendence should relate most clearly to the Self-Enhancement versus Self-Transcendence conflict.

From a sociological point of view, the role of religion in supporting the social order has been stressed (Durkheim, 1912/1954; Marx, 1848/1964). Although in some periods of revolt, religion can be opposed to the existing social order, religion tends to support this order (Wilson, 1982; Schwartz & Huisman, 1995). This is also the case in Flanders-Belgium. The Roman Catholic Church, which is the most important religious institution in Belgium, has played an important role in the creation of the Belgian state in 1830, and ever since, a good church–state relationship has been maintained within the institutional framework of a Napoleonic division between church and state (Dobbelaere, 1995). This sociological analysis, stressing social order, can be complemented by a psychological analysis. From this point of view, religion is often seen as fulfilling the human need for certainty (Schwartz & Huisman, 1995). By offering a global worldview and a moral program, the complexity of life is reduced and a psychologically safe environment is created. Because the conservation value types Conformity and Security refer most clearly to the importance of social order, a smooth social functioning, and a stable and predictable environment, from a sociopsychological perspective, Exclusion versus Inclusion of Transcendence should relate most clearly to the Openness versus Conservation value conflict.

The aforementioned analyses thus show that, depending on the theoretical perspective (theological-vertical, theological-horizontal or sociopsychological), Exclusion versus Inclusion of Transcendence can be expected to relate to each of the major conflicts in the value domain. But because the Hedonism-Tradition conflict shares some characteristics with both the Self-Enhancement versus Self-Transcendence and the Openness versus Conservation value conflicts (see Figure 2 & Table 2), the Hedonism versus Tradition pattern can be expected to best describe the value priorities related to interindividual differences in Exclusion versus Inclusion of Transcendence (cf. Schwartz & Huisman, 1995).

Literal Versus Symbolic

Because Roman-Catholic theology encompasses a broad range of both literal and symbolical approaches to religion (Schillebeeckx, 1989), little can be said about the Literal versus Symbolic dimension from this perspective. The sociopsychological perspective, however, can easily be related to this dimension (see also Duriez, Fontaine, & Luyten, 2001; Fontaine et al., 2000). In a literal mode of thinking only one correct answer to each question exists. In this way, certainty is created. In the symbolic mode, multiple interpretations are possible. This implies a tolerance for ambiguity as well as for interpretations that can be critical of the existing social order. Because social stability and certainty are most clearly embodied in the Conservation value types Conformity and Security, the Literal versus Symbolic dimension can be expected to relate most clearly (i.e., negatively) to the Openness versus Conservation conflict.

METHOD

Samples

In total, seven different samples ($N = 1,695$) were assembled in Flanders (Belgium). All 1,695 participants had Belgian nationality and belonged to the Flemish-speaking part of the country. Sample 1 consisted of 183 pupils from a secondary school who were contacted by an undergraduate student (mean age = 16; $SD = 02$; 36% male). Samples 2, 3, 4 and 5 consisted of, respectively, 210, 389, 113, and 338 university students following a psychology course. Their participation was obligatory and they received full course credit. The mean age of the participants was 22 ($SD = 02$; 42% male), 18 ($SD = 01$; 20% male), 21 ($SD = 03$; 40% male) and 18 ($SD = 01$; 18% male) respectively. Sample 6 consisted of 161 adults (mean age = 31; $SD = 08$; 69% male) who were gathered by undergraduate students who asked their neighbors to participate in order to obtain a heterogeneous sample. Sample 7 consisted of 301 religiously affiliated adults (mean age = 45; $SD = 13$; 35% male) who were contacted by undergraduate students.

Measures

Dutch versions of the Post-Critical Belief scale were used to measure Wulff's religiosity dimensions. Since its development (Hutsebaut, 1996), this scale has been subjected to a process of partial revision (Duriez et al., 2000). However, Fontaine et al. (2003) have shown that the internal structure of the Post-Critical Belief scale is stable across the different versions that were used over time. Version 1 (23 items) was presented to sample 2, version 2 (31 items) was presented to samples 3, 4, and 6, and version 3 (33 items) was presented to samples 1, 5, and 7 (see Appendix). Items were scored on a 7-point Likert scale (1 = completely opposed, 4 = neutral, 7 = completely in agreement). A principal component analysis on the items was executed by sample after correcting for response sets (Fontaine et al., 2003).⁴ In all samples, based on both the theoretical model and the scree test (Cattell, 1966), two components were

⁴It is important to keep in mind that all items of the PCBS are positively worded, and need to be scored on a 7-point Likert scale. It is also important to keep in mind that, in the theory of Wulff, Literal Affirmation and Reductive Interpretation are mutually exclusive, and Literal Disaffirmation and Restorative Interpretation are mutually exclusive. Hence, theoretically speaking, a high Orthodoxy score should go hand in hand with a low Relativism score (and vice versa) and a high External Critique score should go hand in hand with a low Second Naiveté score (and vice versa). For each individual, the mean score on these four subscales should thus equal 4, the neutral point on the 7-point Likert scale. However, this is not always the case. What does this mean? Imagine that the mean score of a certain person equals 5. Theoretically speaking, this means that, for this person, the neutral point is not situated at 4 but at 5. This must mean that this person tends to agree with all of the items, irrespective of their content. In other words, this person makes use of the 7-point Likert scale in an idiosyncratic and unintended way. This can be adjusted for by a correction for acquiescence. A first step in this correction is to compute a person's average score (his neutral point) on the four subscales. A second step is to subtract this average

extracted. Component scores were computed after orthogonal Procrustes rotation (McCrae, Zonderman, Costa, & Bond, 1996; Schonemann, 1966) of these components toward the average structure (see Figure 3) that was computed across 16 samples (Fontaine et al., 2003). The Tucker's Phi congruence measures between the sample specific and the average configuration exceeded the rule-of-thumb recommendation of .90 (Bentler & Bonett, 1980; Van de Vijver & Leung, 1997) for both components in all samples. A high score on Exclusion versus Inclusion of Transcendence indicates a tendency to include transcendence. A high score on Literal versus Symbolic indicates a tendency to deal with religion in a symbolic way.

Participants also completed the Dutch version of Schwartz's (1992) Value Survey, consisting of 54 values (see Table 1). Each value was rated in terms of its importance as a guiding principle in one's life on a 9-point scale, ranging from "opposed to my principles" (-1) over "not important" (0) to "of supreme importance" (7). As in Schwartz and Huisman's (1995), after correction for the mean score for each participant in order to control for systematic response sets, value scales were computed by averaging the ratings of the single values belonging to these scales (see Table 1).⁵

All participants having over two missing values on either the Post-Critical Belief scale or Schwartz's Value Survey were excluded from further analyses. In total, only 2.3% ($N = 39$) of the participants needed to be removed across the seven samples. For participants that were not removed, missing values were replaced by the sample-specific mean of the item. In total 256 missing values were replaced (<0.25% of the individual scores included in this study).

RESULTS

Bivariate Correlations

Exclusion versus Inclusion of Transcendence. On average, this dimension related most positively to Tradition (see Figure 4 & Table 2). This finding was in line with our expectations. The other correlations followed the sinusoid pattern implied by the Hedonism-Tradition value conflict: They decreased from Tradition over Conformity, Security, Power, and Achievement to Hedonism and

score from the original scores this person obtained on the items of the Post-Critical Belief scale. If someone obtains an average score of 4, then 4 is subtracted from the item scores. As a result, the mean score across the four subscales now equals 0. Likewise, if someone obtains an average score of 5 on the four subscales, then 5 is subtracted from all the item scores. As a result, the mean score across the four subscales now also equals 0. In this way, a common neutral point is created. For each person, all item scores are now centered around this neutral point of 0, and deviations from this neutral point can now be compared straightforwardly across different persons.

⁵In all samples, the order in which participants received both questionnaires was randomized, with half of the sample receiving the Post-Critical Belief scale prior to Schwartz's Value Survey and half the sample receiving Schwartz's Value Survey prior to the Post-Critical Belief scale.

TABLE 2
Theoretical Patterns, Mean Correlations, and Correlations for Each Sample Between Exclusion Versus Inclusion of
Transcendence and Literal Versus Symbolic on the One Hand and the Value Types on the Other Hand

Value	Theoretical Pattern										
Type	HT	SS	OC	Mean	Sample 1	Sample 2	Sample 3	Sample 4	Sample 5	Sample 6	Sample 7
Exclusion vs. Inclusion of Transcendence											
HE	-1.00	-0.59	-0.59	-0.25	-.16*	-.17*	-.25****	-.22*	-.20***	-.18*	-.44****
ST	-0.81	0.00	-0.95	-0.20	-.30****	.02	-.11*	-.26**	-.14**	-.18*	-.43****
SD	-0.31	0.59	-0.95	-0.25	-.41****	-.15*	-.22****	-.29**	-.23****	-.40****	-.20****
UN	0.31	0.95	-0.59	.01	-.04	-.05	-.04	.03	-.03	-.01	.17**
BE	0.81	0.95	0.00	.09	.26***	-.01	-.03	.11	.10	.10	.17**
TR	1.00	0.59	0.59	.41	.45****	.31****	.35****	.49****	.36****	.35****	.56****
CO	0.81	0.00	0.95	.24	.40****	.12	.16**	.11	.19***	.27***	.38****
SE	0.31	-0.59	0.95	.08	.07	.04	.03	.06	.03	.08	.25****
PO	-0.31	-0.95	0.59	-0.01	-.10	-.05	.06	.02	-.02	-.01	-.05
AC	-0.81	-0.95	0.00	-0.01	-.06	-.08	.06	-.02	-.02	.07	-.08
Literal vs. Symbolic											
HE	-1.00	-0.59	-0.59	-0.16	-.19*	-.29****	-.12*	-.20*	-.21****	-.16*	-.03
ST	-0.81	0.00	-0.95	-0.09	-.05	-.14*	-.14**	-.14	-.12*	-.09	-.01
SD	-0.31	0.59	-0.95	.15	.28****	.07	.06	.05	.17**	.22**	.20****
UN	0.31	0.95	-0.59	.30	.40****	.24***	.33****	.31***	.30****	.32****	.24****
BE	0.81	0.95	0.00	.23	.15*	.26***	.26****	.03	.27****	.22**	.23****
TR	1.00	0.59	0.59	.18	.13	.23***	.18****	.25**	.21****	.21**	.07
CO	0.81	0.00	0.95	-.03	-.03	.06	.06	.05	-.03	-.13	-.21****
SE	0.31	-0.59	0.95	-.19	-.32****	-.03	-.16**	-.11	-.21****	-.19*	-.28****
PO	-0.31	-0.95	0.59	-.19	-.23**	-.23***	-.19***	-.13	-.21****	-.13	-.18**
AC	-0.81	-0.95	0.00	-.12	-.13	-.05	-.22****	-.11	-.19***	-.20*	-.00

Notes. HE=Hedonism, ST=Stimulation, SD=Self-Direction, UN=Universalism, BE=Benevolence, TR=Tradition, CO=Conformity, SE=Security, PO=Power, AC=Achievement, HT = Hedonism vs. Tradition, SS = Self-Enhancement vs. Self-Transcendence, OC = Openness vs. Conservation.
* $p < .05$. ** $p < .01$. *** $p < .001$. **** $p < .0001$.

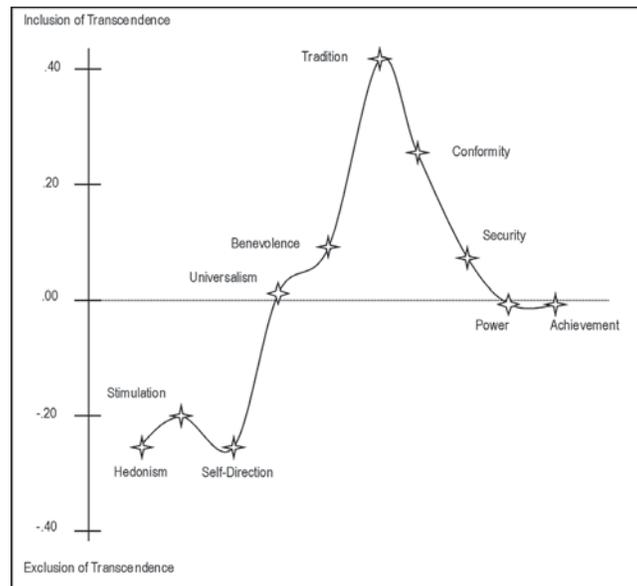


FIGURE 4 Average Correlations Between Exclusion versus Inclusion of Transcendence and Schwartz's Value Types.

increased from Hedonism over Stimulation, Universalism, and Benevolence to Tradition. The correlation with Self-Direction, which was more negative than could be expected based on the sinusoid pattern, formed an exception to this rule. In two samples (4, 7), the correlations are perfectly in line with a circular ordering, in four samples (1, 2, 5, 6) there is one deviation from the circular ordering, and in one sample there are two deviations (3). In all of the samples, Tradition related most positively to Exclusion versus Inclusion of Transcendence. However, there is no consensus as to which value type relates most negatively to this dimension. In four samples (1, 4, 5, 6), Self-Direction was the most negatively related value type, and in three samples (2, 3, 7), Hedonism was the most negatively related value type.

Literal versus Symbolic. On average, contrary to expectations, Literal versus Symbolic related most positively to Universalism instead of to Stimulation and Self-Direction (see Figure 5 & Table 2). The correlations followed a sinusoid pattern. They decreased from Universalism over Self-Direction, Stimulation, and Hedonism to Power and increased from Security over Conformity, Tradition, and Benevolence to Universalism. The correlation with Achievement, which was somewhat less negative than could be expected based on the sinusoid pattern,

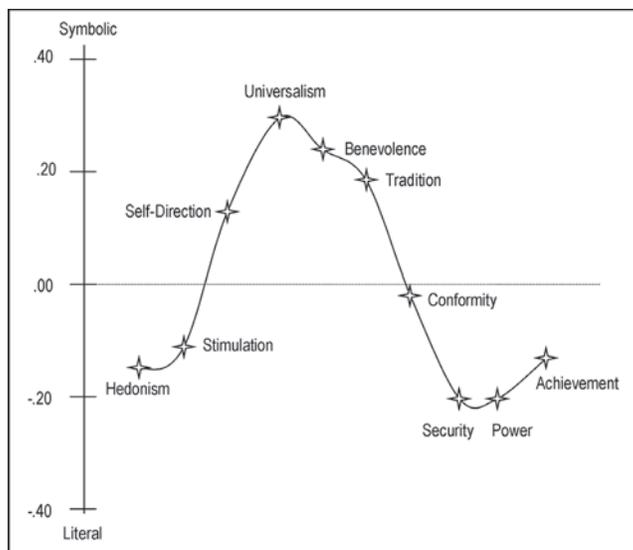


FIGURE 5 Average Correlations between Literal versus Symbolic and Schwartz's Value Types.

formed an exception to this rule. In one sample (4), there were two deviations from the circular ordering, whereas in the other samples, there was only one deviation. In one sample (2), Benevolence related most positively to the Literal versus Symbolic dimension, whereas in the other samples, Universalism related most positively to this dimension. There was no consensus as to which value type related most negatively to the Literal versus Symbolic dimension: Depending on the sample, this was either Hedonism (2, 4), Security (1, 7), or Achievement (3, 6). In Sample 5, Hedonism, Security, and Power related equally negatively to this dimension.

Value Patterns

In order to test the hypotheses in a concise way, we computed the correlation between the value patterns associated with the two religiosity dimensions (the observed value patterns) and each of the three theoretically derived value patterns (see Table 3).⁶ Both the theoretical patterns and observed patterns can be found in Table 2. Note that the theoretical patterns are related to one another. The Tradition

⁶Only Pearson correlations are reported. In using Pearson correlations, we assume that the 10 value types are situated on equidistant positions on a perfect circle. To test our hypotheses without these assumptions, Spearman correlations were also computed. Because Spearman correlations only take the rank order into account, these are not based on these assumptions. Results point out that the Spearman correlations lead to exactly the same conclusions as Pearson correlations.

versus Hedonism pattern is positively related to the two other patterns ($r = .59$ with both patterns) as can be expected for a value pattern that integrates the several possible predictions about which values relate to religion. The Self-Transcendence versus Self-Enhancement and the Conservation versus Openness patterns are slightly negatively related ($r = -.31$). The analyses provide information by sample. However, because there are only 10 value types, it is possible to find a high correspondence between an a priori and an observed value pattern, even if there is no relationship at all in the population. However, when the correspondence between an a priori and an observed value pattern is stable across different samples, this cannot be accounted for by mere coincidence. Moreover, in order to minimize the impact of random sampling fluctuation and sample specific information even further, average correlations across the samples were also computed.⁷

Exclusion versus Inclusion of Transcendence. On average, the value pattern associated with this dimension corresponded most closely to the Hedonism versus Tradition pattern ($r = .85$) (see Table 3). This value pattern also corresponded substantially to the Openness versus Conservation pattern ($r = .78$). Both findings were in line with our expectation. However, contrary to expectations, there was only a marginal correspondence to the Self-Enhancement versus Self-Transcendence pattern ($r = .22$). In five samples (1, 2, 4, 5, 7), the value pattern associated with Exclusion versus Inclusion of Transcendence related most strongly to the Hedonism versus Tradition pattern and second most to the Openness versus Conservation pattern (see Table 3). In the two other samples (3, 6), the pattern associated with Exclusion versus Inclusion of Transcendence related most strongly to the Openness versus Conservation pattern and second most to the Hedonism versus Tradition pattern. The relationship between the value pattern associated with Exclusion versus Inclusion of Transcendence and the Self-Enhancement versus Self-Transcendence pattern, albeit non-negative, tended to zero in all samples.

Literal versus Symbolic. On average, contrary to expectations, the value pattern associated with the Literal versus Symbolic dimension corresponded quasi perfectly to the Self-Enhancement versus Self-Transcendence pattern ($r = .95$), whereas it corresponded only marginally to the inverse Openness versus Conservation pattern ($r = -.27$) (see Table 3). Moreover, there was a substantial correspondence to the Hedonism versus Tradition pattern ($r = .57$). In all samples, the value pattern associated with Literal versus Symbolic was most strongly related to the Self-Enhancement versus Self-Transcendence pattern. In three samples (2, 3, 4), a substantial correspondence to the Hedonism vs. Tradition pattern was ob-

⁷The average pattern across the samples was computed after applying a Fisher-z transformation to the correlations observed in the separate samples and after weighting for sample size.

Table 3
Correlations Between the Theoretical Patterns and the Value Patterns Associated
With Exclusion Versus Inclusion of Transcendence and Literal Versus Symbolic for
Each Sample

<i>Theoretical Pattern</i>	<i>Mean</i>	<i>Sample 1</i>	<i>Sample 2</i>	<i>Sample 3</i>	<i>Sample 4</i>	<i>Sample 5</i>	<i>Sample 6</i>	<i>Sample 7</i>
Exclusion vs. Inclusion of Transcendence								
HT	.85**	.83**	.72*	.67*	.79**	.83**	.72*	.93****
SS	.22	.23	.25	.03	.19	.23	.04	.35
OC	.78**	.76*	.64*	.76*	.74*	.74*	.81**	.74*
Literal vs. Symbolic								
HT	.57	.37	.80**	.73*	.70*	.63	.50	.08
SS	.95****	.90***	.84**	.88***	.80**	.91***	.93**	.77**
OC	-.27	-.47	.09	-.03	.03	-.18	-.34	-.63

Notes. HT = Hedonism vs. Tradition, SS = Self-Enhancement vs. Self-Transcendence, OC = Openness vs. Conservation.

served, whereas this relationship was small but positive in the other samples (see Table 3). The relationship between the value pattern associated with the Literal vs. Symbolic dimension and the Openness versus Conservation pattern was nonsignificant in all samples.

DISCUSSION

The value patterns associated with Wulff's religiosity dimensions were found to be stable across the different samples. This stability excludes a possible interpretation of these results in terms of random sampling fluctuation. Hence, we will focus on the extent to which the average observed value patterns support the a priori hypotheses for both the Exclusion versus Inclusion of Transcendence and the Literal versus Symbolic dimension.

Exclusion Versus Inclusion of Transcendence

The value pattern associated with individual differences in Exclusion versus Inclusion of Transcendence corresponded closely with the Hedonism versus Tradition pattern that was expected to be associated with this dimension from a vertical theological analysis. To a lesser extent, this pattern also showed substantial correspondence with the Openness versus Conservation pattern that was expected from a sociopsychological analysis (see Table 3). An inspection of the correlations (see Table 2) supports these findings: The Exclusion versus Inclusion of Transcendence dimension related most positively to Tradition and, to a lesser extent, Conformity and most negatively to Hedonism, Stimulation, and Self-Direction. However, Se-

curity, which contains value items referring to social stability, was only marginally related to Exclusion versus Inclusion of Transcendence. Hence, the Dependence–Autonomy conflict rather than the Openness versus Conservation conflict seems to be the central intrapersonal conflict concerning religiosity (Vergote, 1997b). These findings replicate the findings of Schwartz and Huisman (1995), who found that religiosity correlated most negatively with Hedonism, Stimulation, and Self-Direction and most positively with Tradition and Conformity (see earlier discussion). The value pattern associated the Exclusion versus Inclusion of Transcendence dimension showed virtually no correspondence with the Self-Enhancement versus Self-Transcendence pattern that was expected to be associated with this dimension from a horizontal theological analysis (see Table 3). An inspection of the correlations (see Table 2) supports this finding: Exclusion versus Inclusion of Transcendence related only marginally to Universalism and Benevolence as well as to Power and Achievement. Because the Exclusion versus Inclusion of Transcendence dimension was controlled for differences in the Literal versus Symbolic dimension, which could otherwise been held responsible for obscuring the observed relationships, this finding indicates that universal brotherly love is not of central importance in how Roman Catholicism is lived. Apparently, being religious does not make a person more sensitive for the well-being of others. These findings are in line with the findings of Duriez (2003, 2004a, 2004b), who found that this dimension is essentially unrelated to moral attitudes and moral competence, racism, and empathy.

Literal Versus Symbolic

The value pattern associated with individual differences in the Literal versus Symbolic dimension showed virtually no correspondence with the Openness versus Conservation pattern that was expected to be associated with this dimension from a sociopsychological analysis (see Table 3). An inspection of the correlations (see Table 2) supports this finding. Hence, the sociopsychological analysis appears to be inadequate to understand the relationship between the Literal versus Symbolic dimension and value priorities. Nevertheless, a clear pattern of relationships between the value priorities and the Literal versus Symbolic dimension showed up. The Self-Enhancement versus Self-Transcendence pattern described the value pattern associated with Literal versus Symbolic almost perfectly. A post-hoc explanation for this finding might be found in the concept of Perspective-Taking. Perspective-Taking refers to the cognitive component of Empathy and can be defined as the tendency to spontaneously adopt the psychological point of view of others (Davis, 1983). On one hand, there is evidence that Perspective-Taking relates positively to prosocial behavior (e.g., Barnett & Thompson, 1985; Bengtsson & Johnson, 1992; Cho, 1993). On the other hand, there is also evidence that a symbolic approach to religion relates to Perspective-Taking. Watson, Hood, and Morris

(1985) found Batson's Quest dimension, which Wulff (1997) situated at the symbolic side of his model, to be positively related to Perspective-Taking, and Duriez (2004b) found that the Literal versus Symbolic dimension relates to differences in Perspective-Taking and Empathy in general. Future research should address whether differences in Perspective-Taking ability can indeed account for the relationship between value priorities and the Literal versus Symbolic dimension.

GENERAL CONCLUSIONS

The present results lend considerable support for studying the religiosity-values relationships from both Schwartz's integrated value structure and Wulff's two-dimensional framework. The observed value patterns were largely in line with a circular organization of the value domain as presented by Schwartz (1992), allowing for a better organization of the religiosity-values relationships. Moreover, interindividual differences in Wulff's religiosity dimensions were accompanied by vast differences in the associated value patterns. On one hand, the value pattern associated with the Exclusion versus Inclusion of Transcendence dimension supported the central importance of the conflict between Hedonism and Tradition in the religiosity domain (cf. Schwartz & Huisman, 1995). On the other hand, the Literal versus Symbolic dimension, which accounts for a substantial part of the variability in responses to religiosity items, is characterized by a very different value pattern. The present findings underscore the need for a multidimensional approach to religiosity. Moreover, the finding that the value pattern associated with the Literal versus Symbolic dimension is characterized by a conflict between Self-Enhancement and Self-Transcendence sheds a new light on the relationship between religiosity and altruism and should instigate new research in this field. Future research should also examine whether the observed relationship between the two religiosity dimensions and value priorities also holds in other Christian denominations and in sociological contexts with different church-state relationships (cf. Roccas & Schwartz, 1997).

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APPENDIX

The Post-Critical Belief Scale

In this appendix, all items of the Post-Critical Belief scale are listed for the four subscales separately, namely, Orthodoxy, External Critique, Relativism, and Second Naiveté. For all items, the label by which they are referred to in Figure 3 and the version(s) in which they appeared are also given. Note that although all items were administered in Flemish, we present them in English (cf. Fontaine et al., 2003).

<i>Label</i>	<i>Version</i>	<i>Item</i>
Orthodoxy		
O1	1,2,3	God has been defined for once and for all and therefore is immutable.....
O2	1,2,3	Even though this goes against modern rationality, I believe Mary truly was a virgin when she gave birth to Jesus.....
O3	1,2,3	Only the major religious traditions guarantee admittance to God.....
O4	1,2,3	Religion is the one thing that gives meaning to life in all its aspects.....
O5	1,2,3	Only a priest can give an answer to important religious questions.....
O6	1,2,3	I think that Bible stories should be taken literally, as they are written.....
O7	1,2,3	You can only live a meaningful life if you believe.....
O8	1,2,3	Ultimately, there is only one correct answer to each religious question.....
External critique		
E1	1,2,3	Faith is more of a dream, which turns out to be an illusion when one is confronted with the harshness of life.....
E2	1,2,3	Too many people have been oppressed in the name of God in order to still be able to have faith.....
E3	1,2,3	God is only a name for the inexplicable.....
E4	1,2,3	A scientific understanding of human life and the world has made a religious understanding superfluous.....
E5	1	I sometimes find it hard to believe, because you can never attain real certainty.....
E6	1	I experience God as an impersonal power somewhere.....
E7	1,3	The world of Bible stories is so far removed from us, that it has little relevance.....
E8	2,3	In the end, faith is nothing more than a safety net for human fears.....
E9	2,3	In order to fully understand what religion is all about, you have to be an outsider.....
E10	2,3	Faith is an expression of a weak personality.....
E11	2,3	Religious faith often is an instrument for obtaining power, and that makes it suspect.....
Relativism		
R1	1,2,3	Each statement about God is a result of the time in which it was made.....
R2	1,2,3	Official Church doctrine and other statements about the absolute will always remain relative because they are pronounced by human beings at a certain period of time.....
R4	2,3	The manner in which humans experience their relationship to God, will always be colored by the times they live in.....
R5	2,3	I am well aware my ideology is only one possibility among so many others.....
R6	2,3	Secular and religious conceptions of the world give valuable answers to important questions about life.....
R7	2	Through contact with people with a different ideology, I learn to put my own beliefs into perspective.....
R8	2	The world would be a lot less interesting if everyone held the same beliefs.....
R9	2	I have totally no problem with other people holding other beliefs.....
R10	3	There is no absolute meaning in life, only giving directions, which is different for every one of us.....
R11	1,3	Ultimately, religion means commitment without absolute guarantee.....
Second naïveté		
S1	1,2,3	The Bible holds a deeper truth which can only be revealed by personal reflection.....
S2	1,2,3	The Bible is a guide, full of signs in the search for God, and not a historical account.....
S3	1,2,3	Despite the fact that the Bible has been written in a completely different historical context from ours, it retains a basic message.....

S4	1	For me, God is neither necessary nor useful, but significant.....
S5	2,3	Because Jesus is mainly a guiding principle for me, my faith in him would not be affected, if it would appear that he never actually existed as a historical individual...
S6	2,3	The historical accuracy of the stories from the Bible is irrelevant for my faith in God...
S7	2,3	Despite the high number of injustices Christianity has caused people, the original message of Christ is still valuable to me.....
S8	2,3	I still call myself a Christian, even though a lot of things that I cannot agree with have happened in the past in name of Christianity.....
S9	2,3	If you want to understand the meaning of the miracle stories from the Bible, you should always place them in their historical context.....
