Personality, Identity Styles, and Religiosity: An Integrative Study Among Late Adolescents in Flanders (Belgium)

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ABSTRACT   The relationship between the two main dimensions of the religiosity domain (Exclusion vs. Inclusion of Transcendence and Literal vs. Symbolic) and both the Five-Factor Model of personality and Berzonsky's (1990) identity styles was investigated in a Flemish sample of late adolescents ($N = 335$). The results show that, whereas Exclusion vs. Inclusion is unrelated to any of the personality dimensions, Literal vs. Symbolic was strongly related to Openness to Experience and moderately to Agreeableness. Further, it was shown that Exclusion vs. Inclusion was positively related to the normative identity style, and that Literal vs. Symbolic correlated positively with the informational identity style and negatively with the diffuse/avoidant identity style. As expected, the relation between Openness to Experience and Literal vs. Symbolic was fully mediated by the informational identity style. Once Openness to Experience was taken into account, Agreeableness was no longer an important determinant of Literal vs. Symbolic.

In the past, quite a lot of studies have been conducted in order to shed a light on the personality-religiosity relation (for a recent overview, see Saroglou, 2002). Most of these studies were exploratory in nature and the picture emerging has been rather fragmented. Apart from this, a limited number of studies have addressed the relationship between identity development and religiosity during adolescence

(Markstrom, 1999; Markstrom, Hofstra, & Dougher, 1994; Tzuriel, 1984; Verhoeven & Hutsebaut, 1995). These studies have also yielded inconsistent results. In this study, we will try to elaborate both research traditions by investigating individual differences in the way both religious and identity-relevant contents are processed. This will allow us to derive theoretical predictions regarding religiosity on the one hand and personality and identity on the other hand, and to propose an integrated model in which the relationship between personality and religiosity during late adolescence is mediated by the social-cognitive processes involved in identity development.

Religiosity and Personality

Conceptual relationship.   Most researchers consider religiosity to be an ideology or a set of acquired beliefs and practices (e.g., McCrae, 1999; Roccas, Sagiv, Schwartz, & Knafo, 2002). From this point of view, religiosity can be located at the attitudinal level along with concepts like patriotism, nationalism, and conservatism (Duriez, Luyten, Snauwaert, & Hutsebaut, 2002). According to Roccas et al. (2002), attitudes bear some similarity to values because both constructs relate to the evaluation and justification of choices and actions. In contrast, personality traits should be considered as "dimensions of individual differences in tendencies to show consistent patterns of thoughts, feelings and actions" (McCrae & Costa, 1990). Hence, traits can be considered as enduring dispositions that describe what people are like. And although it has been argued that values and attitudes share some important characteristics with traits, these are different constructs, and their relations to external variables differ. The main difference between both constructs is that values and attitudes are considered better predictors of goal-directed behaviors that are under cognitive control, whereas traits are considered to be better predictors of spontaneous and intuitive behaviors over which one has little cognitive control (Roccas et al., 2002). Therefore, the study of the relationship between personality traits and religious attitudes can bring new insights both to the research on personality and to the research on religiosity.

Empirical relationship.   Early research into the relation between religiosity and personality using Eysenck's three-dimensional model of personality (PEN; Psychoticism, Extraversion and Neuroticism)

(Eysenck & Eysenck, 1968, 1985) confirmed the hypothesis that religiosity corresponds, at least to some extent, to individual differences in personality traits. Although some authors failed to find a link between religious attitudes and personality (e.g., Chau, Johnson, Bowers, Darvill, & Danko, 1990; D'Onofrio, Eaves, Murrelle, Maes, & Spilka, 1995; Heaven, 1990; Robinson, 1990), a series of studies in a variety of cultures and denominations converged on the conclusion that religious people in general tend to be somewhat lower in Psychoticism (Francis, 1992a, 1992b, 1993; Francis & Katz, 1992; Francis & Pearson, 1993; Lewis & Joseph, 1994; Lewis & Maltby, 1995, 1996; Maltby, 1999a, 1999b). Regarding the other dimensions (Extraversion and Neuroticism), no such convergence was reached. Different studies yielded inconsistent results, leading researchers to conclude that these factors are unrelated to religiosity (e.g., Eysenck, 1998; Francis, 1992b).

More recently, Costa and McCrae (1978, 1992) have presented the Five-Factor Model of personality (FFM; Extraversion, Agreeableness, Conscientiousness, Neuroticism, Openness to Experience). This model claims to represent the basic factors that organize human traits (e.g., Saucier & Goldberg, 1998) and can be regarded as an extension of Eysenck's model, with Agreeableness and Conscientiousness providing a two-dimensional view of low Psychoticism (Digman, 1997; McCrae, 1996a) and Openness to Experience constituting a new element (Costa & McCrae, 1995). Extraversion refers to the quantity and intensity of interpersonal interaction, activity, need for stimulation, and capacity of joy. Agreeableness refers to one's interpersonal orientation along a continuum from compassion to antagonism in thoughts, feelings, and actions. Conscientiousness refers to the individual's degree of organization, persistence, and motivation in goal-directed behavior. Neuroticism refers to adjustment versus emotional instability and identifies individuals who are prone to maladaptive coping responses, psychological distress, unrealistic ideas, and excessive craving. Openness to Experience refers to toleration and exploration of the unfamiliar and appreciation of experience for its own sake.

Although some studies using the Five-Factor Model resulted in positive relations between religiosity and both Agreeableness and Conscientiousness (Kosek, 1999, 2000; Taylor & McDonald, 1999), these relations are typically low (Saroglou, 2002), and sometimes even absent (Saucier, 2000; Saucier & Goldberg, 1998; Streyfeller &

McNally, 1998;). Regarding the other factors, no clear relation with religiosity emerged (Saroglou, 2002). Nevertheless, McCrae (1999) has urged greater attention to Openness to Experience in order to come to a better understanding of religious phenomena.

Individuals high in Openness to Experience may be characterized by a particularly permeable structure of consciousness as well as by an active motivation to seek out the unfamiliar. This need for experience, which goes hand in hand with tolerance of ambiguity and open-mindedness, leads those high in Openness to Experience to endorse liberal political and social values because questioning conventional values is a natural extension of their curiosity (McCrae, 1996b). The willingness to question conventional values also leads to higher moral development (Lonky, Kaus, & Roodin, 1984), and hence, Openness to Experience is considered highly relevant towards social attitudes and ideologies in general (McCrae, 1993–1994, 1994, 1996b; McCrae & Costa, 1997; Riemann, Grubich, Hempel, Mergl, & Richter, 1993; Saucier, 2000; Trapnell, 1994; Van Hiel, Kossowska, & Mervielde, 2000). The importance of Openness to Experience towards religiosity is supported by Streyffeler and McNally (1998), who found liberal and fundamentalist Protestants to differ with respect to this factor but not with respect to any other factor of the Five Factor Model, and by Saucier (2000), who found Openness to Experience to relate negatively to alphaism (a broad dimension of social attitudes which is comprised of, among other things, conventional religion). Given this definition and these findings, it can be hypothesized that openness to experience is highly relevant for the way in which religious issues are interpreted and processed.

A process-oriented view on religiosity.   Wulff (1991, 1997) has recently constructed a comprehensive framework to identify various possible approaches to religion. According to Wulff, all possible approaches to religion can be summarized along two orthogonal bipolar dimensions. The vertical axis in this space, the Exclusion vs. Inclusion of Transcendence dimension, specifies whether the objects of religious interest are granted participation in a transcendent reality or not, and hence refers to the distinction between being religious or not.[1] The horizontal axis, the Literal vs. Symbolic dimension, in-

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1.   Although Wulff intended to construct a theoretical framework that incorporates all of the possible approaches to religion, this theoretical framework can

dicates whether religious expressions and symbols are interpreted literally or symbolically. Hence, this dimension is situated at the level of social cognitions and explicitly refers to the way religious contents are processed. In this way, four quadrants are defined, each covering a specific attitude towards religion: Literal Affirmation, Literal Disaffirmation, Symbolic Affirmation, and Symbolic Disaffirmation. The first quadrant, Literal Affirmation, represents a position in which the literal existence of religious objects is affirmed. This position is most clearly embodied by religious fundamentalism. The second quadrant, Literal Disaffirmation, represents a position in which one neither believes in the literal meaning of religious words nor in the possibility that these words can have a symbolic meaning. The third quadrant, Symbolic Disaffirmation, represents a position in which the existence of the religious realm is rejected, but in which the possibility is taken into account that religious contents might have a symbolic meaning. Finally, the fourth quadrant, Symbolic Affirmation, represents a position in which the existence of the religious realm is affirmed, and in which one tries to encompass and transcend reductive interpretations in order to find a symbolic meaning in the religious language that has personal relevance.

Building on Wulff's theory, Hutsebaut and his colleagues (Desimpelaere, Sulas, Duriez, & Hutsebaut, 1999; Duriez & Hutsebaut, 2000; Hutsebaut, 1996) constructed the Post-Critical Belief Scale, which captures four approaches to Christian religion that map onto

easily be extended to incorporate spirituality. It all depends on the content of transcendence that is included or excluded. In this respect, it should be noted that, in a special issue of *Journal of Personality* on religiosity, Piedmont (1999) introduced the term *transcendence* to refer to an ''intrinsic motivation that drives, directs, and selects behaviors.'' According to him, ''although religion and spirituality are venues that certainly attract those with a strong sense of transcendence, there are other ways this motivation can find expression.'' Among these other ways, Piedmont mentions patriotism and nationalism. This definition of transcendence closely resembles the Schwartz's (1992) definition of self-transcendence value orientation. It should be clear that what Wulff aims at when speaking of transcendence is more restrictive. Wulff does not use this term to refer to a motivational source, but simply to make clear that people vary in the degree to which they accept the existence of a transcendent reality, or in the degree to which they can be labeled religious (or spiritual, depending on the operationalization of Wulff's theoretical framework; see Note 2). In that sense, the Exclusion vs. Inclusion of Transcendence dimension refers to the attitudinal level (cf. Duriez et al., 2002, McCrae, 1999, Roccas et al., 2002).

Wulff's scheme: Orthodoxy, External Critique, Relativism, and Second Naiveté. These four approaches were considered equivalent to, respectively, Literal Affirmation, Literal Disaffirmation, Symbolic Affirmation, and Symbolic Disaffirmation. Only recently, however, thorough assessments were made of the construct validity of the Post-Critical Belief Scale. Duriez, Fontaine, and Hutsebaut (2000) have shown that its four subscales provide accurate measures of Wulff's four approaches to religion, and Fontaine, Duriez, Luyten, and Hutsebaut (2003) have shown that, when interindividual differences in acquiescence are corrected for, two components are sufficient to explain the empirical relations among the items of the Post-Critical Belief Scale and that these two components can be interpreted in terms of the dimensions Exclusion vs. Inclusion of Transcendence and Literal vs. Symbolic.[2]

In line with McCrae (1999), we expect Openness to Experience to be of crucial importance in understanding religious phenomena. More specifically, although this dimension can be expected to be unrelated to being religious or not (as most of the previous research has shown), and hence to be unrelated to Exclusion vs. Inclusion of Transcendence, it can, nevertheless, be expected to be important in understanding the way in which people process religious contents. Like those high on Openness to Experience (McCrae, 1996b), those processing religious contents in a symbolic way are able to grasp new ideas and new interpretations of religious contents. In addition, previous research has shown that processing religious contents in a lit-

2.   In reference to Note 1, the Post-Critical Belief Scale assesses religiosity rather than the broader concept of spirituality. Zinnbauer, Pargament, and Scott (1999) have posited "a search for the sacred" as the common ground between religion and spirituality. However, whereas conceptions of spirituality do not always have a transcendent reference point, conceptions of religiosity generally refer to an individual's involvement in a specific religious tradition (Emmons & Paloutzian, 2003). Clearly, the Post-Critical Belief Scale is limited to attitudes towards Christianity and Christian religious contents. Consequently, everyone obtaining a high score on Exclusion vs. Inclusion of Transcendence can be referred to as being religious and everyone obtaining a low score on this dimension can be referred to as not being religious. Therefore, not surprisingly, the Exclusion vs. Inclusion of Transcendence dimension is highly correlated ($r > .60$) to traditional measures of religiosity such as measures of church involvement, frequency of church attendance, the importance of religion in life, and belief in a personal God (see Fontaine et al., 2003; Hutsebaut, 2001).

eral way relates to lack of moral competence (Duriez, 2003c), racism (Duriez, 2004; Duriez & Hutsebaut, 2000; Duriez et al., 2002), prejudice dispositions such as authoritarianism, social dominance and lack of empathy (Duriez, in press; Duriez & Van Hiel, 2002), cultural conservatism (Duriez, 2003a; Duriez et al., 2002) and cognitive-motivational variables such as intolerance of ambiguity and closed-mindedness (Duriez, 2003b). All of which are also associated with low Openness to Experience (McCrae, 1993–1994, 1994, 1996b; McCrae & Costa, 1997; Riemann et al., 1993; Saucier, 2000; Trapnell, 1994; Van Hiel et al., 2000).

Religiosity and Identity

Conceptual relationship. According to Erikson (1968), the primary developmental task of adolescence is the formation of an integrated sense of personal identity. The outcome of this process has been conceptualized by Marcia (1966, 1967, 1980) along the orthogonal dimensions of exploration and commitment. Exploration refers to both the degree of self-examination about one's values, beliefs, and goals and the degree of exploration of various social roles, whereas commitment refers to the possession of a stable set of convictions, values, and goals. The two dimensions define four identity statuses: Achievement (high on both commitment and exploration), Moratorium (low commitment, high exploration), Foreclosure (high commitment, low exploration), and Diffusion (low on both commitment and exploration).

In the process of searching and exploring one's identity, the adolescent is thought to develop a personal view on issues of political, occupational, philosophical, and religious nature (Erikson, 1958, 1964, 1965). Therefore, an important question is whether identity development relates to the acquisition of religious beliefs and whether personal crises experienced in the process of identity formation go hand in hand with an increased openness toward the divine and, consequently, with religious involvement. According to Parker (1985), anecdotal evidence from the Old and New Testaments supports the notion that high religious involvement arises after experiencing profound identity crises (e.g., initially a prosecutor of the Christian movement, Paul was converted to Christianity in a period of his life during which he experienced severe inner conflicts), suggesting that the experience of conflict in the search for a personal identity (i.e., identity exploration) is a major determinant in developing religious beliefs.

Empirical relationship.   In spite of this supposed importance of experiencing conflict in the search for a personal identity toward the development of religious beliefs, there has been a lack of empirical research addressing the relationship between religiosity and identity development. Moreover, the few studies that did examine this relationship have led to inconclusive results. Whereas some studies reported higher religiosity among individuals in the identity statuses characterized by commitment (achievement and foreclosure) (Markstrom-Adams, Hofstra, & Dougher, 1994; Tzuriel, 1984; Verhoeven & Hutsebaut, 1995), Markstrom-Adams (1999) found no relation between dimensions of ideological identity (i.e., identity with respect to religion, politics, occupation, and philosophical lifestyles) and indices of religious involvement. Thus, although Parker (1985) expected a positive relation between the exploration dimension of identity and the degree of religious involvement, empirical studies could not confirm this. Rather—although not all studies confirmed this relationship—a positive relation between the commitment dimension and the degree of religious involvement was found (Markstrom-Adams, 1999).

A process-oriented approach to identity.   All of the studies reported above have relied on Marcia's identity status paradigm. Although this paradigm has proven its utility and validity in empirical research on identity (Berzonsky & Adams, 1999; Marcia, 1980; Waterman, 1982), it has been criticized for treating identity statuses as dispositional, static outcome variables (Côté & Levine, 1987, 1988; van Hoof, 1999). In an attempt to conceptualize individual differences in identity development in a more process-oriented way, Berzonsky (1990) proposed three identity styles. Berzonsky (1990) points out that these identity styles are ways of processing information and of coping with problems that typically arise in identity crises. As such, they should be considered as social cognitions or as cognitive self-theories through which the adolescent perceives and processes reality. *Information-oriented* individuals deal with identity issues and personal decisions by actively seeking out, processing, and utilizing relevant information in the context of identity development. When confronted with information that is dissonant with their self-conceptions, information-oriented individuals will be prepared to revise and accommodate their self-perceptions. *Normative-oriented* individuals focus on the normative expectations and prescriptions held up by significant others (e.g., parents or authority figures) and

reference groups (e.g., a certain religious tradition). Furthermore, they adhere rigidly to their existing identity structures, into which they inflexibly assimilate all identity-relevant information. Finally, *diffuse/avoidant-oriented* individuals can be characterized by procrastination of decisions about personal problems and one's identity. According to Berzonsky (1990), this identity style results in a fragmented and loosely integrated identity structure. Research has shown that individuals in the achievement and moratorium statuses use a predominantly information-oriented identity style, that individuals in the foreclosure status tend to apply the normative identity style, and that individuals in the diffusion status adopt a diffuse/avoidant oriented identity style (Berman, Schwartz, Kurtines, & Berman, 2001; Berzonsky, 1992a; Berzonsky & Kuk, 2000; Berzonsky & Niemeyer, 1994; Schwartz, Mullis, Waterman, & Dunham, 2000; Streitmatter, 1993).

The fact that the results of the limited research on the identity-religiosity relation are difficult to interpret could be attributed to the lack of a common theoretical framework on how adolescents process both identity-relevant information and religious phenomena. By bringing together Berzonsky's (1990) theory of process-oriented identity styles and Wulff's (1991, 1997) multidimensional model of religiosity (in which one dimension refers to the processing of religious information), clear hypotheses about this relation can be formulated. First, information-oriented individuals actively seek out and evaluate information in order to make a personal integration of identity elements (Berzonsky, 1990). Therefore, it can be expected that this identity style will relate positively to a personal and symbolic interpretation of religious phenomena and, hence, will be positively related to the Literal vs. Symbolic dimension. However, because an active evaluation of religious elements may or may not lead people to include these elements in their identity, no relation with the Exclusion vs. Inclusion of Transcendence dimension is expected. Second, normative-oriented individuals are expected to rely on and conform to the prescriptions and standards of both significant others and reference groups (Berzonsky, 1990). Given the fact that the Flemish-Belgian society is characterized by a strong Roman Catholic tradition and that this Roman Catholic religion can be considered part of our cultural inheritance (Billiet & Dobbelaere, 1976; Dobbelaere, 1995), we can expect normative-oriented individuals to be sensitive to this pro-religious climate, and to show higher

scores on the Exclusion vs. Inclusion of Transcendence dimension.[3] Moreover, we can expect the normative-oriented identity style to relate negatively to the Literal vs. Symbolic dimension. Individuals with this identity style can be expected to accept literally the prescriptions and dogmas of the Roman Catholic Church because they would be closed to information that is discrepant with the prevailing (religious) tradition (Berzonsky, 1990). Finally, we can expect a negative association between the diffuse/avoidant-identity style and the Literal vs. Symbolic dimension, but for different reasons. Instead of conforming to existing traditions and prescriptions of authority figures, people with a diffuse identity style are likely to avoid questioning difficult and personal issues such as religion. However, no relation is expected with the Exclusion vs. Inclusion of Transcendence dimension because avoiding the questioning of religious issues may go hand in hand with either an unquestioned rejection or an unquestioned acceptance of the existence of a transcendent reality.

Identity Styles and Openness to Experience

According to Berzonsky (1990), of the five personality factors, Openness to Experience is the most important determinant of individual differences in identity styles. More specifically, Berzonsky (1990; Berzonsky & Adams, 1999) has argued that information-oriented individuals are characterized by high levels of Openness to Experience, whereas people endorsing a normative orientation are closed to information that threatens their self-image and value system. It has indeed been shown that the informational identity style relates positively to Openness to Experience (Dollinger, 1995) as well as to in-

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3. On the societal level, the Roman Catholic Church is very visible. Catholic churches dominate the skylines of the cities, and in the villages, they line up alongside the town halls on the main squares. Moreover, most Belgians are guided by Catholic organizations (schools, banks, hospitals, trade unions, cultural associations, insurance companies, youth movements, and mass media) from the cradle to the grave. In the political world, the Christian party (the so-called political channel of the Catholic pillar) has governed the Belgian state from World War II to the turn of the century (with a four-year exception). This has consolidated the presence of Catholicism on the institutional level. In short, the Catholic world is omnipresent. However, on the individual level, although about 90% of all Belgians are baptized by the Catholic Church (and are therefore officially Roman Catholic), only 65% of Belgians actually call themselves Catholic, and (according to the Office of Church Statistics) only 10% of Belgians regularly attend Church services.

trospectiveness, need for cognition, and openness to ideas, feelings, and fantasies (Berzonsky & Sullivan, 1992). In contrast, the normative orientation relates negatively to Openness to Experience and openness to values, actions, and fantasies (Berzonsky & Sullivan, 1992; Dollinger, 1995), and positively to need for structure and cognitive closure (Berzonsky & Adams, 1999). Finally, the diffuse/avoidant orientation, which was found to relate negatively to the information orientation (Berman et al., 2001; Berzonsky, 1992a, 1992b; Berzonsky & Niemeyer, 1994; Berzonsky & Sullivan, 1992; Dollinger, 1995), tends to relate negatively to Openness to Experience (Berzonsky & Sullivan, 1992).

Personality, Identity Styles, and Religiosity

Based on previous research, which has shown that relationships between personality and religiosity are typically low or even absent, we expect that the Exclusion vs. Inclusion of Transcendence dimension, as such, will not be systematically related to the Big Five personality dimensions. In contrast, based on the theorizing of Wulff (1991, 1997) and McCrae (1999), we expect a positive relationship between Openness to Experience and the Literal vs. Symbolic dimension of the religiosity domain.

In order to gain more insight in the nature of the hypothesized relationship between Openness to Experience and the Literal vs. Symbolic dimension, we will examine whether this relationship can be explained by the way late adolescents process identity-relevant information. In contemporary personality and developmental research, it is assumed that personality traits are not merely descriptions of static and enduring interindividual differences. Rather, they should be considered dynamic, organizational constructs, influencing how people organize their behavior, process information, and adapt to the social environment (Buss, 1989; Caspi, 1998; McCrae & Costa, 1997; Roberts, Caspi, & Moffitt, 2001). Given the assumption that issues of identity development and ways of processing these issues are of major importance during adolescence, it can be hypothesized that the relations between personality traits and individual differences in the way people process religious contents are mediated by the identity styles that late adolescents use. More specifically, based on the theories and the research reviewed earlier, we expect Openness to Experience to be the crucial determinant of both an

individual's identity style and his way of processing religious issues. In the presented model, it is hypothesized that higher levels of Openness to Experience will predict higher scores on the informational identity style and lower scores on the normative and diffuse/avoidant identity styles, and that the positive association between Openness to Experience and a symbolic interpretation of religious contents will be mediated by these identity styles. In addition, it is predicted that the normative identity style will directly predict some of the variance in Exclusion vs. Inclusion of Transcendence (see above). Furthermore, based on previous findings, we can expect the informational and the diffuse/avoidant identity style to be negatively related (Berman et al., 2001; Berzonsky, 1992a; 1992b; Berzonsky & Niemeyer, 1994; Berzonsky & Sullivan, 1992; Dollinger, 1995). The proposed integrated model is summarized in Figure 1.

METHOD

Participants

Participants were 335 first-year psychology students from a Belgian university, ranging in age from 17 to 25 with a mean of 18 (80% female). All participants were Flemish speaking and of Belgian nationality. Participation was mandatory, and participants received course credit. Anonymity was guaranteed. Of the participants, 90% was baptized by the Roman Catholic Church, which services are attended regularly (at least once a month) by 8% of the participants, from time to time (less than once a month) by 14% of the participants, on special occasions only by 55% of
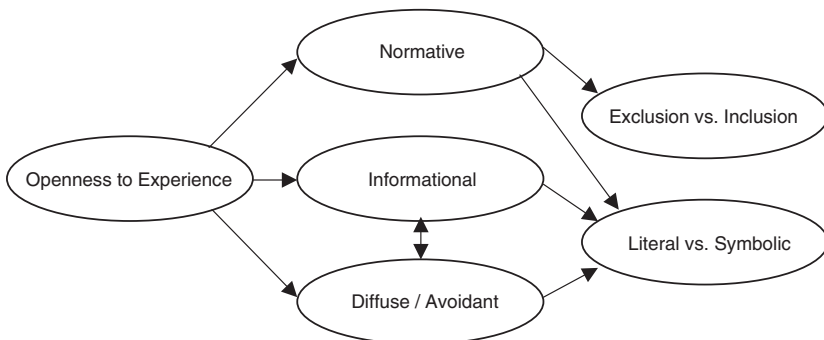
Figure 1
Integrated hypothetical model of the relations between Openness to Experience, the identity styles and the religiosity dimensions.

the participants, and never by 23% of the participants. Students who had three or more missing values on either the NEO-FFI, the Post-Critical Belief Scale, or the Identity Style Inventory were excluded from further analyses. In total, only one participant had to be removed, making $N = 334$. For participants with less than three missing values, these missing values were replaced by the sample-specific mean of the item. In total only 25 missing values were replaced (less than 0.001% of the scores included in this study).

Measures

Personality.   As a measure of Costa & McCrae's (1978, 1992) Five-Factor Model, participants completed the authorized Dutch/Flemish version of the NEO-FFI (60 items; Hoekstra, Ormel, & De Fruyt, 1996), which has been validated on several Dutch and Flemish samples. The Dutch/Flemish translation covers the U.S. item pool as much as possible, and the structure and the descriptive meaning of the different factors closely resemble the original U.S. version. The NEO-FFI contains the subscales Extraversion, Agreeableness, Conscientiousness, Neuroticism, and Openness to Experience (12 items each). The items were scored on a 5-point Likert scale. Estimates of internal consistency (Cronbach alpha's) were .81, .70, .79, .85 and .71 for Extraversion, Agreeableness, Conscientiousness, Neuroticism, and Openness to Experience, respectively.

Identity styles.   As a measure of Berzonsky's (1990) identity styles, participants completed a Flemish version of the revised Identity Style Inventory (ISI; Berzonsky, 1992b). The ISI contains the informational identity style scale (10 items, e.g., "I've spent a great deal of time thinking seriously about what I should do with my life"), the normative identity style scale (10 items, e.g., "I prefer to deal with situations where I can rely on social norms and standards"), and the diffuse/avoidant identity style scale (10 items, e.g., "I'm not really thinking about my future now; it's still a long way off "). The translation into Flemish was done according to the guidelines of the International Test Commission (Hambleton, 1994), using the translation, back-translation procedure (Brislin, 1980). Differences between the back-translated and the original version were minimal. A committee of bilingual research assistants decided on the final Flemish version (Van de Vijver & Leung, 1997). The items were scored on a 5-point Likert scale. Cronbach Alpha's were .68, .62, and .74 for the information style scale, the normative style scale, and the diffuse/avoidant style scale, respectively.

Religiosity.   As a religiosity measure, participants completed the Post-Critical Belief scale (PCBS, Duriez et al., 2000; 33 items). The PCBS

provides measures of Orthodoxy (e.g., ''Only a priest can give an answer to important religious questions''), External Critique (e.g., ''In the end, faith is nothing more than a safety net for human fears''), Relativism (e.g., ''Secular and religious conceptions of the world give valuable answers to important questions about life'') and Second Naiveté (e.g., ''The Bible holds a deeper truth which can only be revealed by personal reflection''). Fontaine et al. (in press) have shown that this scale also provides measures of the basic religiosity dimensions that Wulff (1991, 1997) identified (see above). In this way, the effects of being religious or not (Exclusion vs. Inclusion of Transcendence) can be disentangled from the way in which religious contents are dealt with (either in a literal or in a symbolical way). The items were scored on a 7-point Likert scale. As in Fontaine et al. (in press), a level of acquiescence estimation was subtracted from the raw scores. A Principal Component Analysis (PCA) was then performed on these corrected scores. A scree test (Cattell, 1966) pointed to a two-componential solution. However, because PCA allows freedom of rotation, the componential structures obtained in different samples cannot be compared directly. Therefore, this structure was subjected to an orthogonal Procrustes rotation (McCrae, Zonderman, Costa, & Bond, 1996; Schonemann, 1966) toward the average structure reported by Fontaine et al. (2003). Tucker's Phi indices exceeded .90, suggesting good congruence (Bentler & Bonett, 1980; Van de Vijver & Leung, 1997). Hence, these components could be interpreted as Exclusion vs. Inclusion of Transcendence and Literal vs. Symbolic, respectively. Estimates of internal consistency (theta) (Armor, 1974) were .91 for Exclusion vs. Inclusion of Transcendence and .81 for Literal vs. Symbolic. A high score on Exclusion vs. Inclusion of Transcendence indicates a tendency to include transcendence. A high score on Literal vs. Symbolic indicates a tendency to deal with religion in a symbolic way.[4]

4. For the purpose of the present study, we decided to derive the underlying dimensions (Exclusion vs. Inclusion of Transcendence and Literal vs. Symbolic) by means of factor analysis (as described by Fontaine et al., 2003) instead of working with the four subscales (as described by Duriez et al., 2000). There are three main reasons why the extraction of these two components is statistically superior to using these subscales. First, because of the correction for individual differences in acquiescence, which was done prior to the extraction of the components, the scores that are used to represent an individual's position in Wulff's model are no longer affected by differences in acquiescence. Second, using factor scores instead of the traditional unweighted sum of item scores guarantees a reliability equal to or greater than that which is obtained by using unweighted sum of item scores (see Armor, 1974). The reason for this is that factor scores allow items to contribute to a construct in a more appropriate way. An unweighted sum score does not allow items to contribute differentially to a construct. In contrast, factor scores allow

RESULTS

Initial Analyses

To adjust for measurement error, structural equation modeling with latent variables (SEM; Bollen, 1989) was performed using Lisrel 8.54 (Jöreskog & Sörbom, 1996a). SEM with latent variables requires multiple indicators for all the constructs that are assessed. Instead of using separate items as indicators, we created three parcels of items for each construct (in a random fashion) and used these as indicators of the 10 latent constructs (i.e., five personality factors, three identity styles, and two religiosity dimensions), resulting in 10 parcels. For the Post-Critical Belief Scale, parceling consisted of dividing the items in three groups of 11 items and carrying out a PCA on each of these three groups to derive the underlying dimensions of Exclusion vs. Inclusion of Transcendence and Literal vs. Symbolic, following the procedure described above. According to Marsh, Hau, Balla, and Grayson (1998), parceling has some advantages with respect to the modeling of latent factors. Parceling results in a smaller number of indicators per latent factor, individual parcels are likely to have a stronger relation to the latent factor, are less likely to be influenced by method effects, and are more likely to meet the assumptions of normality. In addition, the reliability of the factors is unaffected by the use of parcels because the same items are used to form the latent factor. However, in spite of this parceling procedure, data screening of these parcels using Prelis 2.54 (Jöreskog & Sörbom, 1996b) indicated partial nonnormality of the data, both at the univariate and the multivariate level. Therefore, in all subsequent models, we used the matrix of asymptotic covariances among all parcels as input (see Appendix). To evaluate the goodness of fit, we inspected the Satorra-Bentler Scaled chi-square (SBS-χ^2, Satorra & Bentler, 1994) instead of the commonly used chi-square because the former corrects for the nonnormality of the data. To further evaluate the goodness of fit of

some items to make a greater contribution to the construct than other items. In this way, the factor scores are based on all of the items included in the Post-Critical Belief Scale instead of only on some of them. Hence, the scores that are derived to represent an individual's position in Wulff's model are not only more reliable but also more accurate. Third, representing an individual's position in Wulff's model on the basis of the factor scores allows one to disentangle the effects of being religious or not (Exclusion vs. Inclusion of Transcendence) from the way in which religious contents are processed (Literal vs. Symbolic).

the structural equation models, the Standardized Root Mean Square Residual (SRMR; Bentler, 1995) and the Root Mean Squared Error of Approximation (RMSEA; Steiger & Lind, 1980) were selected. According to Hu and Bentler (1999), the combined cut-off values of .09 for SRMR and .06 for RMSEA indicate a good model fit.

Measurement Model

Initial estimation of the complete measurement model with 30 observed variables (i.e., parcels) and 10 latent factors by means of confirmatory factor analysis indicated a relatively good overall model fit (SBS-χ^2 (357) = 811.86, SRMR = .072 and RMSEA = .062). Note that this initial model incorporates three error covariances between the corresponding parcels of the Post-Critical Belief Scale. These three error covariances reflect the way in which the dimensions of Inclusion vs. Exclusion of Transcendence and Literal vs. Symbolic were derived from the raw item/parcel scores on this scale. As described above, each item contributes to both Inclusion vs. Exclusion of Transcendence and Literal vs. Symbolic. Hence, because these parcels are based on the same items, error covariances were allowed between (a) the first parcel of Inclusion vs. Exclusion of Transcendence and Literal vs. Symbolic, (b) between the second parcel of Inclusion vs. Exclusion of Transcendence and Literal vs. Symbolic, and (c) between the third parcel of Inclusion vs. Exclusion of Transcendence and Literal vs. Symbolic.

Careful inspection of residual covariances and modification indices as provided by Lisrel 8.54 (Jöreskog & Sörbom, 1996a) suggested one modification to this initial model. Adding a negative cross-loading of one of the parcels of the diffuse/avoidant identity style to the normative identity style, which was not inconsistent with the underlying theory of Berzonsky (1990), significantly improved the model fit (SBS-χ^2 (356) = 783.21, SRMR = .071 and RMSEA = .060) compared to the model without cross-loading (ΔSBS-χ^2 (1) = 26.74; $p < .0001$). This modification did not substantially change the correlations among the latent factors. Straightforward comparison of the two correlation matrices by means of a chi-square test indicated no overall differences (χ^2 = 13.15 (df = 55), ns). Finally, all of the parcels had a strong loading on their corresponding latent factor (mean lambda = .68, SD = .14). In sum, a reliable measurement model was obtained for the 10 constructs in our study.

Correlational Analyses

To test our hypotheses we first conducted some correlational analyses on the latent variables obtained in the previous measurement model. Correlations among all latent factors are displayed in Table 1. Due to the large sample size, our analyses attained high power. To preclude that small effects were flagged as significant, an alpha-level of .01 was used in our analyses. Results show that all of the personality factors are unrelated to the Exclusion vs. Inclusion of Transcendence dimension. Results also show that the personality factors Openness to Experience and, to a lesser extent, Agreeableness relate positively to the Literal vs. Symbolic dimension. Extraversion, Conscientiousness and Neuroticism were unrelated to this dimension. These analyses also revealed clear relationships between the identity styles and the two dimensions of the religiosity domain. More specifically, the Exclusion vs. Inclusion of Transcendence dimension related positively to the normative identity style and the Literal vs. Symbolic dimension related positively to the informational identity style and negatively to both the normative identity style and the diffuse/avoidant identity style. Finally, as expected, these analyses also show that Openness to Experience was positively related to the informational identity style and negatively to both the normative identity style and the diffuse/avoidant identity style. Although not of primary interest for the present study, some other relationships between the identity styles and the personality factors were found as well, including a positive relationship between Agreeableness and the informational identity style and between Conscientiousness and the normative identity style and a negative relationship between both Agreeableness and Conscientiousness and the diffuse/avoidant identity style.

Structural Equation Modeling

Our structural model, which only involves a subset of the variables that were included in the measurement model, proposes that Openness to Experience is directly predictive of the way identity-relevant information is processed, which, in turn contributes to the way religious phenomena are interpreted (Literal vs. Symbolic). In addition, it was expected that the normative identity style would positively predict the Exclusion vs. Inclusion of Transcendence dimension and that the informational and the diffuse/avoidant identity style would be negatively related. In other words, the hypothesized model is a full

Table 1
Correlations Between the Latent Variables Included in this Study

	01	02	03	04	05	06	07	08	09	10
01 Extraversion	0.71									
02 Agreeableness	.41**	0.29								
03 Conscientiousness	.26**	.27**	0.40							
04 Neuroticism	− .57**	− .16*	− .24**	0.61						
05 Openness	.06	.18*	.01	.06	0.42					
06 Informational	− .12	.14*	.08	.02	.70**	0.52				
07 Normative	.10	.04	.51**	− .10	− .23**	.01	0.45			
08 Diffuse/Avoidant	.03	− .39**	− .34**	.01	− .32**	− .66**	− .03	0.39		
09 Exclusion vs. Inclusion	.02	.06	.13	.01	− .04	.02	.31**	.01	0.87	
10 Literal vs. Symbolic	− .09	.21*	− .11	.07	.34**	.50**	− .10	− .34**	.11	0.78

Note: The standard deviations can be found on the diagonal

*$p<.01$, **$p<.0001$

mediation model (Baron & Kenny, 1986; Holmbeck, 1997), in which it is expected that the direct path from Openness to Experience (the exogenous or independent variable) to the Literal vs. Symbolic dimension will turn out to be nonsignificant when the identity styles are taken into account. Overall fit indices of this initial model pointed to a good fit (SBS-χ^2 (123) = 214.53, SRMR = .066 and RMSEA = .054). However, inspection of the t-values indicated that two paths could be deleted without significant loss in model fit. Specifically, the Wald test suggested dropping the path from the normative identity style to Literal vs. Symbolic, and the path from the diffuse/avoidant identity style to Literal vs. Symbolic. Therefore in a second step, these paths were deleted from the model, resulting in an equally well-fitting but more parsimonious model (SBS-χ^2 (125) = 216.99, SRMR = .057, RMSEA = .047). This final model is shown in Figure 2.

Figure 2 shows that Openness to Experience is related to the Literal vs. Symbolic dimension via the informational identity style. In order to determine whether the informational identity style mediates the relation between Openness to Experience and the Literal vs. Symbolic dimension, a test for the significance of the indirect effect, proposed by MacKinnon, Lockwood, Hoffman, West, and Sheets (2002), was conducted. Bobko and Rieck (1980) used the multivariate delta method to find an estimate of the standard error of the effect of the mediator when the calculation of this effect is based on the product of (a) the effect of the independent variable (Openness to Experience) on the mediator (the informational identity style) and

* $p < .01$, ** $p < .0001$
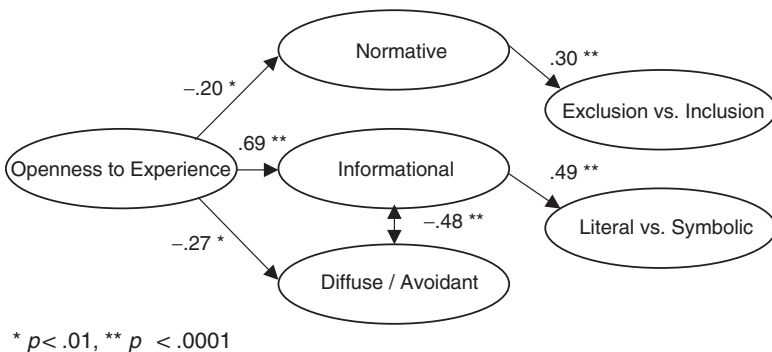
Figure 2

Integrated model of the relations between Openness to Experience, the identity styles and the religiosity dimensions, including the standardized path coefficients

(b) the effect of the mediator on the dependent variable (Literal vs. Symbolic), controlling for the independent variable (see also MacKinnon et al., 2002). This method of investigating mediation was found to have the maximum power to detect the intervening variable effect when both α (the path from the independent variable to the mediator) and β (the path from the mediator to the dependent variable, controlling for the independent variable) are nonzero (see MacKinnon et al., 2002), which is the case in our analysis. The Z-score that was obtained after dividing the estimation of the indirect effect by its standard error was highly significant ($z' = \alpha\beta/\sigma_{\alpha\beta} = 7.63$, $p < .0001$), providing evidence for the strong mediation effect of the informational identity style.

   Finally, because the correlational analyses have indicated that there is a significantly positive relation between Agreeableness and the Literal vs. Symbolic dimension (see Table 1), we tried to incorporate this relation into our model in order to check whether it would also be mediated by the identity styles. Because Agreeableness was related to the diffuse/avoidant identity style only (in a negative way), and because this diffuse/avoidant identity style also happened to be negatively related to the Literal vs. Symbolic dimension (see Table 1), we included Agreeableness into our model and added pathways from Agreeableness to the diffuse/avoidant identity style and from the diffuse/avoidant identity style to Literal vs. Symbolic. Results show that, when doing so, the standardized path coefficient of the pathway from Openness to Experience to the diffuse/avoidant identity style drops off slightly (from $-.31$, $p < .0001$ to $-.25$, $p < .01$) in favor of the path from Agreeableness to the diffuse/avoidant identity style (beta $= -.34$, $p < .0001$). However, the path from the diffuse/avoidant identity style to Literal vs. Symbolic remained non-significant ($p > .01$), and was fixed at zero again. The fit indices indicated that this elaborated model also fits the data well (SBS-χ^2 (177) = 299.69, SRMR = .060 and RMSEA = .046).

DISCUSSION

The aim of the present study was to elaborate on previous empirical findings on the relation between personality and religiosity and between identity and religiosity. For this purpose, we introduced a multidimensional approach to religiosity that disentangles the two

main dimensions of the religiosity domain, which Wulff (1991, 1997) identified (Exclusion vs. Inclusion of Transcendence and Literal vs. Symbolic), as well as a process-oriented approach to identity development. Finally, we presented an integrated model of the relations between personality, identity styles, and religiosity (see Figure 1).

Religiosity and Personality

Previous studies have shown that there exist only small and inconsistent relationships between religiosity and the five personality dimensions (Saroglou, 2002). Therefore, we expected that the relation between personality and the Exclusion vs. Inclusion of Transcendence dimension (which indicates the degree to which one is religious or not) would be small or even absent. Our data clearly confirmed this expectation. Exclusion vs. Inclusion of Transcendence was not significantly related to any of the five personality dimensions. This finding is in line with the argument of Fontaine et al. (in press) that most religiosity measures confuse the Exclusion vs. Inclusion of Transcendence dimension and the Literal vs. Symbolic dimension, leading to an inaccurate picture of religiosity and its correlates.

Based on the theories of Wulff (1991, 1997) and McCrae (1999), a strong and positive relation was expected between the personality factor Openness to Experience and the religiosity dimension Literal vs. Symbolic that indicates whether religious contents are processed literally or symbolically. This expected relation was clearly confirmed. Unexpectedly, a significantly positive relation was found between the Literal vs. Symbolic dimension and Agreeableness as well. However, this should come as no surprise, because previous research has shown that the Literal vs. Symbolic dimension relates to empathy and perspective taking (Duriez, in press; Fontaine, Duriez, Luyten, Corveleyn, & Hutsebaut, in press). Moreover, McCrae (1999) has argued that, just like Openness to Experience, although to a lesser extent, Agreeableness is also relevant to social attitudes and ideologies in general. Hence, a similar pattern of correlations with social attitudes and ideologies might be expected. Nevertheless, results of the structural equation modeling showed that, once Openness to Experience is taken into account, Agreeableness is no longer a determinant of the Literal vs. Symbolic dimension.

In line with Saucier and Goldberg (1998), Piedmont (1999), and Paunonen and Jackson (2000), who have argued that religiousness

and spirituality are beyond the factors that are represented in the Five-Factor Model of personality, we can conclude that there is no relation whatsoever between any of the five personality factors and whether or not people believe in a transcendent reality or a personal God. In spite of this, Openness to Experience is important in order to interpret religious phenomena because it is related to dealing with religious contents in an open and symbolic way.

Religiosity and Identity Styles

Disentangling whether or not people are religious (Exclusion vs. Inclusion of Transcendence) from the way in which religious contents are processed (Literal vs. Symbolic) not only sheds a new light on the relation between personality and religiosity, but also on the relationship between identity development and religiosity. Whereas previous research concerning the relation between Marcia's (1966, 1967, 1980) identity statuses and measures of religiosity yielded inconclusive results that are difficult to interpret, the present study makes it clear that theoretically predictable relations do occur when a more process-oriented approach to identity development is combined with our multidimensional religiosity measure. First, we found that late adolescents who use an informational identity style tend to interpret religious contents in a personal and symbolic way (as is expressed by the correlation with the Literal vs. Symbolic dimension). This confirms the idea that information oriented adolescents critically evaluate whether certain religious contents correspond to their personal self-definitions (Berzonsky, 1990). Second, a negative correlation was found between late adolescents' use of a diffuse/avoidant identity style and the Literal vs. Symbolic dimension. Based on the theory of Berzonsky (1990), adolescents using a diffuse/avoidant identity style are indeed thought to interpret these religious contents in a literal way because they are likely to avoid questioning difficult and personal issues such as religion. Third, results of the correlational analyses suggest that late adolescents who use a normative-oriented identity style are more religious (as is expressed by the correlation with Exclusion vs. Inclusion of Transcendence), at least in a context that is characterized by a strong religious tradition. They also show a slight (but nonsignificant) tendency to interpret religious phenomena in a literal way. This confirms the theory of Berzonsky (1990), which claims that adolescents using a normative-oriented identity style are thought to be

likely to rely on and conform to the prescriptions and standards of both significant others, reference groups, authority, and tradition.

An Integrated Model

Contemporary personality and developmental research assumes that personality traits such as the ones presented in the Five-Factor Model are not merely descriptions of static, enduring individual differences. Rather, they should be considered dynamic organizational constructs that influence how people organize their behavior, process information, and adapt to the social environment (Buss, 1989; Caspi, 1998; McCrae & Costa, 1997; Roberts, Caspi, & Moffitt, 2001). Hence, given the assumption that issues of identity development and ways of processing these issues are of major importance during adolescence, it was hypothesized that the relation between Openness to Experience and the religiosity dimensions would be mediated by the identity styles late adolescents use. This theory-driven model was found to fit the data well. The association between Openness to Experience and the Literal vs. Symbolic dimension turned out to be nonsignificant when identity styles were included as mediating variables. More specifically, the informational identity style was found to be the strongest mediator. The normative and the diffuse/avoidant identity style were no longer significantly related to the Literal vs. Symbolic dimension once the informational identity style was taken into account. Hence, it can be concluded that identity styles, and more specifically the informational identity style, completely mediate the relationship between Openness to Experience and the Literal vs. Symbolic dimension. Moreover, an elaboration of our model suggested that, once Openness to Experience is taken into account, Agreeableness is no longer a significant predictor of the Literal vs. Symbolic dimension.

Theoretical and Practical Implications

The proposed model has important implications for future work on religiosity, both at a theoretical and at a practical level. First, the finding that the relationships between dimensions of personality (i.e., Openness to Experience) and dimensions of religiosity (i.e., the Literal vs. Symbolic) are mediated by the social-cognitive processes involved in identity development gives more insight in the nature of this relationship. It suggests that an individual's personality organ-

izes and structures how information concerning important, identity-relevant issues is processed. This processing style, in turn, predicts the way religious information is processed. This clearly interpretable pattern of findings is in contrast with the often inconsistent and small relations found in much of the early work on personality and religiosity (see Saroglou, 2002). Whereas most of these studies tended to be exploratory in nature and to focus on static and dispositional conceptualizations of both identity and religiosity, our findings indicate that research could benefit from the theory-driven approach proposed in the present study.

Second, by pointing out the important role of stylistic differences in identity development in the prediction of dimensions of religiosity, the proposed model has practical implications as well. There is growing evidence that it is possible to facilitate and direct the identity formation process by means of intervention programs (Archer, 1994; Ferrer-Wreder et al., 2002; Josselson, 1994). Consequently, it could be hypothesized that, by promoting an informational identity style, adolescents can be taught to deal with religious issues in a more symbolic way. Given the strong positive relations that were found in earlier studies between processing religious contents in a literal way and lack of moral competence (Duriez, in press-a), racism (Duriez, 2004; Duriez & Hutsebaut, 2000; Duriez, et al., 2002), prejudice dispositions such as authoritarianism, social dominance, and lack of empathy (Duriez, in press; Duriez & Van Hiel, 2002), cultural conservatism (Duriez, 2003a, Duriez, et al., 2002), and cognitive-motivational variables such as intolerance of ambiguity and closed-mindedness (Duriez, 2003b), intervening in the identity formation process may provide us with the possibility of dealing with the societal problems associated with religious conservatism and fundamentalism.

Limitations and Suggestions

We should be careful, however, when drawing conclusions from our path analyses. We are well aware of the fact that, although there are clear theoretical predictions underlying our model, the more detailed construction of our model might have been partly data driven. Hence, it might have been obtained to some extent by "capitalizing on chance" (Jöreskog, 1993). Therefore, before basing strong claims on the analyses reported in our paper, the model we proposed should be tested again (strictly confirmatory), using data from a new and

larger sample of late adolescents. Furthermore, testing this model in groups of middle adolescents would allow one to test whether the underlying theory encompasses the whole of adolescence. Moreover, Erikson (1968) has stressed that identity development is a lifelong process that extends well beyond adolescence into adulthood. Recently, Whitbourne, Sneed, and Skultety (2002) have proposed three ways of adapting one's self-concepts and identity in the context of changing social environments during adulthood and old age: identity balance, identity accommodation and identity assimilation. These identity styles of adulthood are conceptually similar to, respectively, the informational identity style, the diffuse/avoidant identity style and the normative-oriented identity style of late adolescence. Hence, future research might also try to test this model in groups of adults. In this way, the theory underlying the proposed model might be expanded to encompass later stages in life. Furthermore, future research might try and test this model in cultures in which other religious denominations prevail, in order to check whether our model also applies in cultural settings that are not characterized by a strong Roman Catholic tradition, as well as in a context where no religious denomination at all is dominant, in order to check whether our model also applies in cultural settings that are not characterized by a strong religious tradition.

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APPENDIX

Covariance Matrix of All Parcels in the Multivariate Measurement Model (the variances can be found on the diagonal)

Parcel	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15
01. Extraversion 1	0.596														
02. Extraversion 2	.224	0.444													
03. Extraversion 3	.170	.156	0.395												
04. Agreeableness 1	.090	.069	.003	0.230											
05. Agreeableness 2	.112	.105	.037	.109	0.363										
06. Agreeableness 3	.087	.048	-.020	.101	.144	0.352									
07. Conscientiousness 1	.081	.061	.120	.076	.027	.002	0.356								
08. Conscientiousness 2	.013	.028	.038	.106	.041	.039	.127	0.301							
09. Conscientiousness 3	.114	.036	.090	.060	.016	.038	.238	.183	0.529						
10. Neuroticism 1	-.254	-.033	-.082	-.024	.020	-.036	-.056	-.006	-.116	0.554					
11. Neuroticism 2	-.200	-.031	-.069	-.053	-.060	-.069	-.039	-.018	-.063	.299	0.555				
12. Neuroticism 3	-.233	-.041	-.053	-.029	-.046	-.060	-.032	-.021	-.100	.334	.284	0.554			
13. Openess 1	.034	.080	.100	.052	.073	.010	.043	.041	-.030	.072	-.015	-.013	0.324		
14. Openess 2	-.025	.009	.058	.002	.024	-.007	.004	-.033	-.069	.036	-.050	-.024	.142	0.345	
15. Openess 3	-.004	.041	.118	.029	.028	-.012	.061	.054	-.009	.043	-.021	.011	.226	.220	0.503
16. Informational 1	-.092	-.044	.042	.015	.002	-.038	.000	.027	-.034	.090	.023	.032	.155	.149	.235
17. Informational 2	-.060	.006	.027	.027	.023	.033	.032	.056	.005	.018	.028	.000	.098	.072	.101
18. Informational 3	.050	.030	.070	.066	.035	.022	.037	.046	.044	-.057	-.087	-.116	.114	.102	.129
19. Normative 1	.004	.017	.038	.024	.005	.014	.111	.107	.158	-.041	-.005	.010	-.026	-.083	-.047
20. Normative 2	-.001	-.044	.003	.019	-.038	-.002	.036	.040	.053	-.070	-.026	.007	-.002	-.029	-.034
21. Normative 3	.037	-.017	-.005	.016	-.006	.000	.075	.048	.129	-.066	.017	-.021	-.069	-.084	-.047
22. Diffuse/Avoidant 1	.008	-.022	-.030	-.046	-.083	-.005	-.112	-.087	-.145	-.016	.007	.022	-.035	-.011	-.051
23. Diffuse/Avoidant 2	.043	-.060	-.009	-.055	-.093	-.047	-.039	-.078	-.062	-.081	-.017	-.004	-.068	-.038	-.057
24. Diffuse/Avoidant 3	-.040	-.063	-.099	-.042	-.079	-.008	-.086	-.067	-.087	.085	.112	.172	-.064	-.072	-.081
25. Exclusion vs. Inclusion 1	.029	-.043	.016	.016	-.015	.036	.041	.013	.103	-.041	-.023	.003	-.020	.007	.035
26. Exclusion vs. Inclusion 2	-.037	-.029	.019	.010	-.013	.039	.031	.011	.039	.045	.050	.084	-.042	-.031	-.037
27. Exclusion vs. Inclusion 3	.040	-.044	.038	.029	.011	.084	.027	.013	.096	-.002	-.021	-.017	-.054	-.015	-.001
28. Literal vs. Symbolic 1	-.072	.005	.010	.042	.074	.106	.003	-.021	-.109	.110	-.041	.007	.171	.181	.106
29. Literal vs. Symbolic 2	-.047	-.037	-.017	.051	.038	.070	.038	-.006	-.067	.068	-.032	-.058	.121	.129	.083
30. Literal vs. Symbolic 3	-.048	-.003	-.015	.037	.068	.061	.007	.004	-.110	.105	-.037	.000	.140	.128	.087

Parcel	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
01. Extraversion 1															
02. Extraversion 2															
03. Extraversion 3															
04. Agreeableness 1															
05. Agreeableness 2															
06. Agreeableness 3															
07. Conscientiousness 1															
08. Conscientiousness 2															
09. Conscientiousness 3															
10. Neuroticism 1															
11. Neuroticism 2															
12. Neuroticism 3															
13. Openess 1															
14. Openess 2															
15. Openess 3															
16. Informational 1	0.635														
17. Informational 2	.196	0.405													
18. Informational 3	.139	.172	0.478												
19. Normative 1	−.024	.028	.038	0.449											
20. Normative 2	.018	.020	.029	.119	0.427										
21. Normative 3	−.015	−.022	.008	.215	.147	0.589									
22. Diffuse/Avoidant 1	−.099	−.089	−.094	−.108	−.012	−.131	0.480								
23. Diffuse/Avoidant 2	−.139	−.111	−.115	−.015	.019	.011	.178	0.392							
24. Diffuse/Avoidant 3	−.137	−.103	−.191	−.027	.029	−.021	.184	.177	0.587						
25. Exclusion vs. Inclusion 1	.116	−.035	.024	.139	.055	.189	−.087	−.005	.061	1.000					
26. Exclusion vs. Inclusion 2	.050	−.024	−.021	.073	.050	.155	−.052	.002	.067	.714	1.000				
27. Exclusion vs. Inclusion 3	.016	−.085	−.040	.068	.036	.130	−.051	−.018	−.023	.726	.692	1.000			
28. Literal vs. Symbolic 1	.231	.133	.101	−.045	−.093	−.135	−.053	−.154	−.099	.000	.059	.028	1.000		
29. Literal vs. Symbolic 2	.206	.126	.098	.052	−.095	−.041	−.115	−.132	−.121	.111	.000	.029	.629	1.000	
30. Literal vs. Symbolic 3	.271	.162	.133	.028	−.075	−.073	−.070	−.115	−.094	.127	.074	.000	.620	.693	1.000