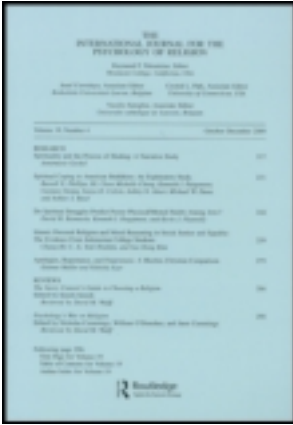


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# How Do Perceptions of God as Autonomy Supportive or Controlling Relate to Individuals' Social-Cognitive Processing of Religious Contents? The Role of Motives for Religious Behavior

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Using self-determination theory as a guiding framework, this study examined whether perceptions of God as autonomy supportive and controlling were related to individuals' belief in a transcendent reality and to their social-cognitive style of approaching religious contents (i.e., literal and rigid vs. symbolic and flexible). Further, we examined whether individuals' motives for religious behavior (i.e., autonomous vs. controlled) would mediate these associations. In a sample of 267 religiously active participants, we found that the two types of perceptions of God were positively related to belief in transcendence but were differentially related to a symbolic approach. Specifically, a perception of God as autonomy supportive related positively and a perception of God as controlling related negatively to a symbolic approach. Some evidence was obtained for a mediating role of motives for religious behavior in these associations. Discussion focuses on how self-determination theory can contribute to research on the psychology of religion.

The study of religious individuals' image of God takes an important place in both classic and contemporary psychology of religion. One important reason for this continuing research interest is that representations of God are closely intertwined with the cognitive, motivational, and affective dynamics involved in people's religious experiences. To date, God images have been examined mainly from theoretical perspectives such as attachment theory (e.g., Kirkpatrick & Shaver, 1990) and object-relational theory (e.g., Rizzuto, 1979). The goal of this study is to introduce self-determination theory (SDT; Deci & Ryan, 2000; Vansteenkiste, Niemiec, & Soenens, 2010) as another useful framework to study representations of God. SDT has a rich tradition of studying the quality of interpersonal relationships, with abundant research demonstrating the importance of a distinction between autonomy supportive and controlling interpersonal contexts (La Guardia & Patrick, 2008; Soenens & Vansteenkiste, 2010). This research has focused exclusively on real-life social partners, such as parents and romantic partners. So far, no SDT-based research has been conducted to examine the dynamics and effects of an autonomy-supportive or controlling style in the context of a relationship with a nonphysical other (e.g., God).

An important tenet in SDT is that autonomy-supportive (relative to controlling) interpersonal conditions, and the autonomous (relative to controlled) motivational orientations instilled by these conditions, affect individuals' style of processing information (Hodgins & Knee, 2002). Whereas autonomy-support and subsequent autonomous motives would foster an open and flexible approach to information, a controlling environment and subsequent controlled motives would foster a relatively more closed-minded and rigid approach to information. Accordingly, the main aim of this study was to examine whether autonomy-supportive and controlling representations of God would relate differentially to religious individuals' social-cognitive approach to religiosity and whether these associations would be accounted for by motives for religious behavior.

### AUTONOMY SUPPORT VERSUS CONTROL IN INTERPERSONAL RELATIONSHIPS

In SDT, autonomy support is defined as the promotion of volitional or self-determined functioning (Grolnick, Deci, & Ryan, 1997; Soenens et al., 2007). Volitional functioning can be encouraged through several strategies, such as allowing meaningful choices, encouraging others to act in accordance with personal interests, and being empathic to others' perspective (Deci, Eghrari, Patrick, & Leone, 1994). Autonomy support can be contrasted with a controlling interpersonal style where people are pressured to think, act, or feel in a certain way (Grolnick, 2003). Such a controlling style can be expressed in at least two ways, that is, as external or internal control (Ryan, 1982; Vansteenkiste, Simons, Lens, Soenens, & Matos, 2005). Externally controlling events pressure individuals in a relatively overt and manifest fashion, using tangible external contingencies such as rewards or punishments (Deci, Koestner, & Ryan, 1999; Soenens & Vansteenkiste, 2010). An internally controlling style involves the use of more subtle and manipulative behaviors, such as guilt induction, shaming, or conditional regard (i.e., withdrawing love when others do not behave as desired). Instead of pressuring people from without, such strategies pressure people from within by appealing to feelings such as guilt and shame (Assor, Roth, & Deci, 2004; Barber, 1996; Roth, Assor, Niemiec, Ryan, & Deci, 2009).

Abundant correlational and experimental research has provided evidence for the differential effects of autonomy-supportive and controlling interpersonal styles on individuals' psychosocial functioning. Individuals who perceive others as autonomy supportive display high levels of psychological well-being, behavioral adjustment, and adaptive developmental outcomes (e.g., Grolnick et al., 1997; Soenens et al., 2007; Vansteenkiste, Simons, et al., 2005). Conversely, individuals who perceive others as using a controlling interpersonal style display poor behavioral adjustment, distress, and even psychopathology (e.g., Assor et al., 2004; Grolnick, 2003; Ryan, Deci, Grolnick, & La Guardia, 2006). Such effects have been demonstrated in both hierarchical or authority-based interpersonal relationships (e.g., parent-child, teacher-student) and egalitarian relationships characterized by mutuality (e.g., close friendships and romantic partners; Deci, La Guardia, Moller, Scheiner, & Ryan, 2006).

Translated to the domain of God image, we propose that religious people can perceive the interpersonal style used by God as either relatively more autonomy supportive or relatively more controlling. Individuals who perceive God as using a relatively more autonomy-supportive interpersonal style would perceive God as being open to different styles of being religious (i.e., providing choice) and as being aware of human weaknesses and acknowledging individuals' perspective (i.e., empathy). In contrast, individuals who perceive God as using a relatively more controlling interpersonal style would perceive God primarily as a judge who sets strict limits on how to lead a pious life. To impose his own view, a controlling God would rely on a variety of pressuring tactics such as threats of punishment and revenge, controlling rewards, and conditional regard. As a consequence, a controlling God would be perceived as critical, evaluative, and pressuring.

Although a number of questionnaires have been developed to tap into dimensions of God image (e.g., Benson & Spilka, 1973; Vergote & Tamayo, 1981) and attachment to God (e.g., Beck & McDonald, 2004; Granqvist, Ivarsson, Broberg, & Hagekull, 2007; King, Lynch, & Ryan, 1989; Rowatt & Kirkpatrick, 2002), the present study is the first to provide an explicit analysis of God's interpersonal style based on the SDT framework. As such, a first goal of this study was to develop a questionnaire tapping into perceptions of God as autonomy supportive and controlling and to examine the internal structure and validity of this questionnaire. It is expected that an autonomy-supportive God style can be discerned from a controlling God style and that both styles will relate differentially to established measures of relatedness to God and God image.

## AUTONOMOUS AND CONTROLLED MOTIVES FOR RELIGIOUS BEHAVIOR

According to SDT, autonomy-supportive and controlling contexts are important antecedents of individuals' autonomous and controlled motives for behavior (Grolnick et al., 1997). Herein, motives are understood in terms of the reasons why people believe or think they engage in particular behaviors. When individuals' behavior is driven by autonomous motives, they enact the behavior with a sense of psychological freedom, choice, and volition (Deci & Ryan, 2000). One important instance of autonomous motivation is intrinsic motivation, which refers to the engagement in behavior for nothing but the feeling of satisfaction and joy associated with the behavior itself. Even when behavior is not intrinsically motivated, however, it can still

be autonomous in nature. When people realize the personal importance of a behavior that is not inherently satisfying and endorse this behavior as their own, they are said to identify with this behavior. Further, people may also integrate their behavior with deep-held values and preferences and thereby organize different personally valued behaviors into a harmonious whole. Together with intrinsic motivation, identification and integration are considered instances of autonomous motivation because they are characterized by feelings of choice and volition. In contrast, in the case of controlled motivation, people feel compelled, pressured, and forced to engage in a particular behavior (Deci & Ryan, 2000). SDT distinguishes between two forms of controlled motivation, that is, external regulation and introjection. With external regulation, people engage in behavior to meet external pressuring forces, such as the expectations of others, the promise of a reward, or the threat of a punishment. With introjection, people have at least partially internalized the importance of a behavior but still feel pressured from within. That is, people's reasons to perform a behavior reside in the person but are still experienced as controlled, for instance, because people try to avoid negatively valued pressuring feelings such as guilt, shame, and inferiority or to achieve positively valued pressuring states such as contingent self-worth, superiority, and self-aggrandizement.

Like most human behaviors, religious behavior can be driven by autonomous or controlled motives. For instance, a person who attends church because he derives inherent satisfaction from church attendance or because he feels that this is personally important and consistent with deep-held values has an autonomous motivation for going to church. In contrast, a person who goes to church to avoid criticism by others or because he feels that this is his moral duty and obligation has a relatively more controlled motivation for going to church. Consistent with SDT, research suggests that autonomy-supportive and controlling interpersonal styles relate differentially to individuals' motives for behavior (Grolnick et al., 1997). As an example, Vansteenkiste, Zhou, Lens, and Soenens (2005) showed that perceived parental autonomy-supportive (vs. controlling) parenting was related to an autonomous (rather than controlled) motivation to study. Translating these findings to the domain of God style, it is expected in this study that a perceived autonomy-supportive God style will relate to an autonomous regulation of religious behavior, such that people who perceive God as autonomy supportive will personally endorse religious contents and engage in religious behavior with a sense of volition. In contrast, a controlling God style would relate to a more controlled regulation of religious behavior, where people will feel pressured to perform religious behavior or to adopt religious contents.

At this point, one may wonder whether and how the SDT perspective on religious motivation differs from another, more established theory of religious motivation, that is, Allport's (1950; Allport & Ross, 1967) theory on intrinsic and extrinsic religious orientations. Although at first sight it may seem as if the distinction between autonomous and controlled motivation is equivalent to the distinction between intrinsic and extrinsic religiosity, Neyrinck and colleagues pointed out a number of important differences between both perspectives (Neyrinck, Lens, & Vansteenkiste, 2005; Neyrinck, Lens, Vansteenkiste, & Soenens, 2010). For instance, it was argued and found that Allport's concept of intrinsic religious orientation (which involves considering religiosity as a master motive in life and deriving a sense of meaning from religious engagement) leans more closely toward the SDT-based concept of identified motivation (where people fully endorse and understand the importance and meaning of their religious activities) than toward the SDT-based concept of intrinsic motivation (where people engage in religious

activities for the inherent satisfaction derived from the activities themselves). Further, it was found that Allport's extrinsic religious orientation was relatively orthogonal to an SDT-based measure of controlled motivation. Neyrinck and colleagues (Neyrinck et al., 2005; Neyrinck et al., 2010) argued that an extrinsic religious orientation as defined by Allport does not necessarily reflect a sense of pressure or coercion to engage in religious activities (i.e., controlled motivation). Instead, an extrinsic orientation appears to encompass a number of goals (rather than motives), such as safety and social contact, that can be undergirded by either autonomous or controlled motives. Because the concepts of autonomous and controlled motivation are related to, yet distinct from, motivational constructs prevailing in the literature on psychology of religion, Neyrinck et al. (2010) called for additional research on autonomous and controlled motives. The present study heeds this call by examining whether these motives account for associations between images of God and individuals' social-cognitive approach toward religious contents.

### SOCIAL-COGNITIVE APPROACHES TOWARD RELIGION

To conceptualize social-cognitive approaches to religion, we relied on the model of Wulff (1997), in which approaches to religion are summarized in a two-dimensional space built up by two axes. The inclusion versus exclusion of transcendence dimension (vertical axis) specifies whether or not people believe in a transcendent reality. The literal versus symbolic dimension (horizontal axis) indicates whether religion is interpreted literally or symbolically. The latter dimension deals with individual differences in whether people interpret religious contents in a literal and dogmatic fashion or whether they adopt a relatively more open, interpretative, relativistic, and personal orientation toward religious contents. Hence, whereas inclusion versus exclusion of transcendence pertains to *religiosity as such*, literal versus symbolic pertains to *the way people process religious contents*.

Hutsebaut (1996) developed the Post-Critical Belief Scale (PCBS) as an operationalization of Wulff's model. Through factor-analysis, Fontaine, Duriez, Luyten, and Hutsebaut (2003) have demonstrated that the PCBS yields reliable scores for the two underlying dimensions of Wulff's model, that is, exclusion versus inclusion of transcendence (indicating whether one is religious or not) and literal versus symbolic (indicating individuals' style of processing religious contents). To date, only one study addressed relations between approaches toward religious contents and God representations. Hutsebaut (1997) found a positive association between literal belief and Vergote and Tamayo's (1981) concept of "paternal" God representation, that is, a representation of God as the law, restricting human autonomy. In contrast, symbolic belief was correlated more strongly with a "maternal" God representation, that is, "a less demanding and less conflicting" God image (Hutsebaut, 1997, p. 43).

In this study, we examined the hypothesis that, whereas both autonomy-supportive and controlling God styles would relate positively to inclusion of transcendence, they would relate differentially to a literal versus symbolic approach to religiosity. On one hand, we expected that both perceptions of God as either autonomy supportive or controlling would relate to stronger adherence to religious contents, as expressed in high inclusion of transcendence scores, because research has shown that controlling and autonomy-supportive contexts can promote a similar quantity of engagement (Assor et al., 2004; Vansteenkiste, Simons, et al., 2005). On the other

hand, research has shown that autonomy-supportive and controlling contexts relate differentially to the quality of engagement and information processing, such that autonomy support fosters deep-level, sophisticated, divergent, and open processing of information, whereas controlling contexts lead to relatively more shallow, defensive, convergent, and rigid processing of information (Hodgins & Knee, 2002; Vansteenkiste, Simons, et al., 2005). Translating these findings to the present context, it is expected that perceived autonomy-supportive and controlling God styles will yield positive and negative associations with symbolic processing of religiosity, respectively. This hypothesis is consistent with Hutsebaut's (1997) work on maternal and paternal God images as well as with research showing (a) that negative representations of God are related to more dogmatic, prejudiced, and closed-minded attitudes (e.g., Froese, Bader, & Smith, 2008) and (b) that representations of a nurturing God are related to flexible and open-minded orientations and attitudes (Greeley, 1988; Webb, Chickering, Colburn, Heisler, & Call, 2005).

According to SDT, the differential associations of autonomy-supportive (vs. controlling) contexts with the quality of processing information can be accounted for by individuals' motives for behavior. Hodgins and Knee (2002), for instance, argued that autonomous motives provide people with feelings of psychological freedom and vitality that are necessary to process information in an open, unbiased, thorough, and flexible fashion. Specifically in the domain of religious contents, this would mean that autonomous motives would relate to an interpretative and open-minded orientation, as expressed in a symbolic approach. In contrast, people with controlled motives would feel pressured and would be inclined to protect or enhance their self-worth. Because they would feel easily threatened by discrepant information or unfamiliar points of view, they would display a defensive orientation where they rigidly hold on to extant beliefs, and where they would process information in a biased and assimilative fashion. In the domain of religiosity, this would be expressed in a literal approach to religious contents. Some evidence for this hypothesis was obtained by Neyrinck, Vansteenkiste, Lens, Hutsebaut, and Duriez (2006), who found that a composite score of autonomous (vs. controlled) motives for religious behavior was positively related to a symbolic (vs. literal) approach.

## THE PRESENT RESEARCH

A first aim of this study was to develop and validate a measure tapping into the SDT-based concepts of autonomy-supportive and controlling God styles. We expected to be able to distinguish both God styles from one another, and we expected that both would relate differentially to extant measures of relatedness to God (King et al., 1989) and God image (Benson & Spilka, 1973), with an autonomy-supportive perception of God relating positively to relatedness to God and to a loving God image and with a controlling perception of God relating negatively to relatedness to God and positively to an alternative measure of controlling God image.

A second aim was to examine associations between God styles, motives for religious behavior, and social-cognitive approach to religiosity. We expected autonomy-supportive and controlling perceived God styles to relate similarly (i.e., positively) to inclusion of transcendence but to relate differentially to a symbolic approach to religiosity (with autonomy-supportive and controlling perceptions of God being positively and negatively related to a

symbolic approach, respectively). Next, we wanted to examine whether motives for religious behavior would account for (i.e., mediate) the associations between perceived God styles and individuals' social-cognitive approach to religion.

Although not a primary aim of this study, we also aimed to explore whether perceptions of God as autonomy supportive and controlling would add to the prediction of inclusion of transcendence and symbolic orientation beyond the effects of perceived attachment to God. This was deemed important because attachment to God is a well-established predictor of religious experiences and because one may wonder whether our newly developed questionnaire has incremental predictive value in addition to extant measures of God representations.

## METHOD

### Participants and Procedure

The sample consisted of 305 Dutch-speaking Belgians who are actively engaged in religious activities. Participants were contacted during lectures on religious topics or during organized religious activities. Participants were told the primary goals of the research and were provided with both a paper-and-pencil questionnaire and a flyer containing a URL address (in case they would prefer to fill out the questionnaire electronically). Thirty percent of the participants (i.e., 93) filled out the questionnaire electronically. We emphasized that participation was voluntary and anonymous. The sample was 65% female, and the mean age was 53 years ( $SD = 17.05$ ; range = 18–88). In terms of behavioral engagement in religious activities, 2% indicated that they never prayed, 4% seldom, 21% from time to time, 33% often, and 40% very often. Two percent never attended church, 5% seldom, 8% from time to time, 22% often, and 63% very often. One percent regarded religious belief as not at all important, 2% rather not important, 2% neither important nor unimportant, 23% rather important, and 72% as very important. The large majority of participants (i.e., 96%) considered themselves Catholics.

### Measures

All measures were presented in Dutch, the participants' mother tongue. Except when indicated otherwise, items were rated on 5-point Likert scales ranging from 1 (*completely disagree*) to 5 (*completely agree*).

*Perceptions of God.* To measure the degree to which participants perceived God as autonomy supportive or controlling, 24 items were formulated on the basis of previous work in the domain of socialization and interpersonal style (e.g., Roth et al., 2009; Soenens et al., 2007; Vansteenkiste, Zhou, et al., 2005). Each item was introduced by the same stem, that is, "The God I believe in. . ." We assessed two key facets of autonomy support (e.g., Deci et al., 1994), that is, empathy (four items, e.g., "... sympathizes with me if I have personal difficulties") and the provision of choice (five items, e.g., "... allows me to make my own choices"). We also assessed a variety of controlling tactics (Assor et al., 2004; Grolnick, 2003; Soenens & Vansteenkiste, 2010), including punishment (four items, "... lets me feel the consequences when I don't behave as a proper believer"), the controlling use of rewards (three items, "...



only grants me a prosperous life if I follow his commandments”), and conditional regard. Recent research (Roth et al., 2009) has shown that conditional regard can be expressed both by withdrawing love and appreciation when others do not behave as desired (negative conditional regard) and by showing more appreciation than usual when others do behave as desired (positive conditional regard). Therefore, we developed items tapping into both conditional positive regard (four items, e.g., “. . . can only be proud of me if I follow His norms”) and conditional negative regard (four items, e.g., “. . . is disappointed with me when I commit a sin”). More information on the factor structure and construct validity of this newly developed scale can be found in the Results section.

*Relatedness to God.* The Relatedness to God scale is a 14-item questionnaire assessing security of attachment to God (King et al., 1989). Because this scale has not been frequently used in research, we performed a Principal Component Analysis (PCA) on the 14 items. PCA clearly pointed to a two-component solution (eigenvalues = 5.21 and 2.05), explaining 52% of the variance. After oblique rotation (Promax), items tapping into positive feelings of attachment and security were found to load on the first component, whereas items tapping into dissatisfaction and resentment in the relationship with God were found to load on the second component. Two scales were computed accordingly: *Attachment to God* (seven items, e.g., “God understands me”;  $M = 4.18$ ,  $SD = 0.69$ , Cronbach’s  $\alpha = .89$ ) and *Dissatisfaction with God* (seven items, e.g., “I wish God were different”;  $M = 2.06$ ,  $SD = 0.61$ ; Cronbach’s  $\alpha = .73$ ). The two scales were negatively correlated with each other ( $r = -.42$ ,  $p < .001$ ).

*God images.* Participants’ images of God were assessed with Benson and Spilka’s (1973) semantic differential Loving and Controlling God scales. On a bipolar scale ranging from 1 to 5, participants were asked to rate several characteristics they attributed to God. The Loving God scale (five items,  $M = 4.39$ ,  $SD = 0.67$ , Cronbach’s  $\alpha = .77$ ) consists of the following bipolar pairs of attributes: damning/saving, rejecting/accepting, loving/hating (reverse scored), unforgiving/forgiving, and approving/disapproving (reverse scored). The Controlling God scale (five items,  $M = 2.18$ ,  $SD = 0.72$ , Cronbach’s  $\alpha = .68$ ) contains the following pairs of attributes: demanding/not demanding (reverse scored), freeing/restricting, controlling/uncontrolling (reverse scored), strict/lenient (reverse scored), and permissive/rigid. The two scales were negatively correlated with each other ( $r = -.69$ ,  $p < .001$ ).

*Religious internalization.* To measure participants’ motivational regulations of religious activities, we used a measure developed and validated by Neyrinck et al. (2006), which was in turn based on Ryan, Rigby, and King’s (1993) Christian Religious Internalization Scale. In this measure, participants are asked to generate “the most important religious activity in which your attitude towards religious beliefs is particularly expressed.” Examples of activities frequently listed by the participants include praying, attending Eucharist, and reading on religious topics, but also more alternative activities such as working with flowers. Then, each participant rated a number of potential motives for engaging in the generated activity by indicating a number between 1 (*completely disagree*) and 5 (*completely agree*). The following SDT-based motives were assessed: integrated regulation (four items, e.g., “Because it corresponds well with how I approach other things in life”), identified regulation (four items, e.g., “Because I find it personally important”), introjected regulation (four items, e.g., “Because I can only feel good

about myself when I do this”; “Because I would feel bad when I didn’t do it”), external regulation (four items, e.g., “Because then I get the approval of others”; “Because others would criticize me when I wouldn’t do this”). Although Neyrinck et al. (2006) provided evidence for a three-factor solution, a PCA on the 16 motivation items in the current study clearly yielded a two-factor solution. Specifically, the scree-plot pointed to a two-component solution (eigenvalues = 4.26 and 3.37), explaining 48% of the variance. After oblique rotation (Promax), all items assessing integration and identification (both of which represent autonomous motives) had loadings greater than .40 on the first component, whereas all items assessing introjection and external regulation (both of which represent controlled motives) had loadings greater than .40 on the second component. None of the items had cross-loadings greater than .40. Given this clear and theoretically anticipated factor structure, two scales were computed: *Autonomous Regulation* (eight items,  $M = 4.48$ ,  $SD = 0.47$ , Cronbach’s  $\alpha = .84$ ) and *Controlled Regulation* (eight items,  $M = 2.01$ ,  $SD = 0.70$ , Cronbach’s  $\alpha = .79$ ). Both scales were not significantly related ( $r = .03$ , *ns*).

*Social-cognitive approach to religion.* Participants completed the 33-item PCBS (Fontaine et al., 2003) to assess the two underlying dimensions of Wulff’s model of social-cognitive religious orientations. All items were scored on a 7-point Likert scale ranging from 1 (*completely disagree*) to 7 (*completely agree*). In line with the scoring procedures outlined by Fontaine et al. (2003), we controlled for individual acquiescence differences by subtracting the individual average score across all 33 items from the raw individual item scores. A PCA was then carried out on these corrected scores. The scree-plot pointed to a two-component solution explaining 33% of the variance. After orthogonal Procrustes rotation toward an average target-structure computed across 16 samples (Fontaine et al., 2003), these two components could be interpreted in terms of (*exclusion versus inclusion (of transcendence)*) and (*literal versus symbolic (approach)*). Tucker’s phi indices were then calculated to index the congruence between the sample-specific and the average configuration, with Tucker’s phi indices of .96 and .98, respectively. A positive inclusion score indicates a tendency to adhere to the Roman Catholic message. A positive symbolic score indicates the tendency to process religious contents in a symbolic fashion (Fontaine et al., 2003).

## RESULTS

### Preliminary Analyses

*Internal structure and validity of the Perception of God scale.* Because the measure for perceived God style was used for the first time, we examined its internal structure and construct validity. Exploratory factor analysis (using the principal axis factoring method) on the 24 items measuring perceptions of God as autonomy supportive and controlling pointed to a two-factor solution. Although there were four factors with an eigenvalue greater than 1 (7.09, 5.13, 1.32, and 1.01), inspection of the scree-plot clearly revealed that the first two factors explained most of the variance. Specifically, the first two factors explained 51% of the variance. Table 1 shows the factor pattern after oblique rotation (Promax). Whereas all items tapping into the externally (i.e., rewarding and punishing) and internally controlling (i.e.,

TABLE 1  
 Solution of Exploratory Factor Analysis (Using Principal Axis Factoring) With Oblique Rotation (Promax)  
 on Items Measuring Perceptions of God as Autonomy Supportive or Controlling

<i>The God I Believe in . . .</i>		<i>F1</i>	<i>F2</i>
Punishing	takes revenge on me if I don't respect the religious demands	<b>.55</b>	-.19
	threatens not to accept me in Heaven if I violate the norms of the Bible	<b>.64</b>	-.11
	makes consequences follow if I don't behave as a religious person should	<b>.66</b>	-.03
	takes away my happiness if I do not live up to His expectations	<b>.61</b>	-.12
Rewarding	only grants me His grace if I behave according to His religious norms	<b>.67</b>	-.07
	only grants me a prosperous life if I follow His commandments	<b>.71</b>	-.01
	only grants me grace if I live according to the values of my religious belief	<b>.70</b>	.09
Conditional negative regard	is disappointed with me if I commit a sin	<b>.46</b>	.26
	makes me feel guilty if I am not pure in thought	<b>.64</b>	.10
	looks down upon me with disappointment if I fall short	<b>.54</b>	.14
	makes me feel ashamed if I do not strictly follow his code of conduct	<b>.66</b>	-.01
Conditional positive regard	appreciates me more if I follow His religious commandments	<b>.67</b>	.13
	can only be proud of me if I follow His norms	<b>.75</b>	.10
	only respects me if I live a pious life	<b>.73</b>	-.07
	lets his approval depend on whether I follow the values of my belief	<b>.75</b>	-.02
Empathic	shows understanding for my weaknesses	.06	<b>.75</b>
	accepts me for who I am, with my perfect and imperfect qualities	-.01	<b>.85</b>
	understands that I cannot always follow His religious norms	.09	<b>.65</b>
	sympathizes with me if I have personal difficulties	.16	<b>.68</b>
Choice providing	supports me in who I want to be	.06	<b>.73</b>
	is fine with me making personal decisions on how to live a good life	-.07	<b>.64</b>
	allows me to make my own choices	-.12	<b>.76</b>
	knows there are many ways to live a pious life	-.11	<b>.55</b>
	grants sufficient freedom in my attempts to live a pious life	-.07	<b>.72</b>

*Note.* Factor loadings in bold are larger than .40.

positive and negative conditional regard) God perceptions loaded on the first factor, all items tapping into empathic and choice-providing God perceptions loaded on the second factor (all loadings >.40). No items had cross-loadings greater than .40. Accordingly, two scales scores were computed: *Autonomy-Supportive God* (nine items,  $M = 4.27$ ,  $SD = 0.65$ , Cronbach's  $\alpha = .89$ ) and *Controlling God* (15 items,  $M = 1.97$ ,  $SD = 0.67$ , Cronbach's  $\alpha = .91$ ). Both scales were unrelated ( $r = -.01$ , *ns*). We also found that both scales were significantly skewed (skewness for Autonomy-Supportive God =  $-2.39$ ,  $p < .001$ ; skewness for Controlling God =  $0.37$ ,  $p < .001$ ). As is discussed next, we controlled for this skewness in the main analyses.

Next, we proceeded by examining the associations between these newly developed constructs and the scales measuring relatedness to God and God image. These results can be found in Table 2. A perception of God as autonomy supportive was positively related to attachment to God and negatively to dissatisfaction with God, whereas a perception of God as controlling

TABLE 2  
Construct Validity of the Perceived Autonomy-Supportive and Controlling God Scales

	<i>Perceived Autonomy-Supportive God</i>	<i>Perceived Controlling God</i>
God Relatedness Scale (King et al., 1989)		
Attachment to God	.50***	.20**
Dissatisfaction with God	-.30***	.23***
God Image (Benson & Spilka, 1973)		
Loving	.56***	-.10
Controlling	-.46***	.22***

Note. \*\* $p < .01$  and \*\*\* $p < .001$ .

was positively related to both attachment and dissatisfaction with God. Apparently, perceiving God as controlling seems to be associated with ambivalent feelings toward God. Furthermore, an autonomy-supportive perception of God was related positively to the Loving God scale and negatively to the Controlling God scale of Benson and Spilka's (1973) measure. Our measure of perception of God as controlling was related positively to Benson and Spilka's (1973) Controlling God image scale. These results provide initial evidence for the construct validity of our newly developed Perceptions of God scale.

*Effects of background variables.* Preliminary analyses were conducted to examine relations of the study variables with gender and age. A significant multivariate effect of gender was found, Wilks's  $\Lambda = .92$ ,  $F(6, 282) = 4.12$ ,  $p < .001$ ,  $\eta^2 = .08$ . Specifically, gender differences were found for perception of God as controlling,  $F(1, 280) = 6.70$ ,  $p < .05$ ,  $\eta^2 = .02$ , with male participants ( $M = 2.11$ ,  $SD = 0.67$ ) scoring higher than female participants ( $M = 1.90$ ,  $SD = 0.65$ ); controlled regulation,  $F(1, 280) = 5.02$ ,  $p < .05$ ,  $\eta^2 = .02$ , with male participants ( $M = 2.15$ ,  $SD = 0.66$ ) scoring higher than female participants ( $M = 1.95$ ,  $SD = 0.72$ ), and symbolic approach to religiosity,  $F(1, 280) = 7.16$ ,  $p < .01$ , partial  $\eta^2 = .03$ , with male participants ( $M = 0.21$ ,  $SD = 0.98$ ) scoring higher than female participants ( $M = -0.12$ ,  $SD = 0.99$ ). Age was unrelated to each of the study variables. Given these gender differences obtained, we controlled for gender in the primary analyses.

*Correlations.* Correlations between the study variables can be found in Table 3. The associations obtained were generally in line with expectations. Whereas a perception of God as autonomy supportive was positively related to an autonomous regulation of religious behavior, a perception of God as controlling was positively related to a controlled regulation of religious behavior. Further, perceptions of an autonomy-supportive God related positively to both inclusion of transcendence and a symbolic religious approach, whereas the perception of God as controlling related positively to inclusion of transcendence but negatively to a symbolic approach.

### Primary Analyses

*Measurement model.* To test our main hypotheses, we used structural equation modeling with latent variables (Lisrel 8.50<sup>®</sup>; Jöreskog & Sörbom, 1993). Six latent constructs were

TABLE 3  
Correlations Between Main Study Variables

	1.	2.	3.	4.	5.
1. Autonomy-supportive God					
2. Controlling God	-.01				
3. Autonomous regulation	.30***	-.02			
4. Controlled regulation	-.10	.33***	.03		
5. Inclusion of transcendence	.24***	.22***	.51***	.09	
6. Symbolic approach	.36***	-.24***	.25***	-.20**	.00

Note. \*\* $p < .01$  and \*\*\* $p < .001$ .

modeled, all of which were indicated by three parcels each. Parcels were created by randomly assigning items assessing a particular construct to one parcel. For instance, the 15 items tapping into perceptions of God as autonomy supportive were divided into three parcels of five items each. For the PCBS, parceling consisted of dividing the items in three groups of 11 items. Next, within each of these groups we did a PCA to derive the underlying dimensions of Exclusion versus Inclusion of Transcendence and Literal versus Symbolic (i.e., three separate PCAs with Procrustes rotation, one on each group of items), following the procedure described in the Method section (see Duriez, Soenens, & Beyers, 2004, for this procedure). Finally, a latent variable for gender was created by using gender as a single indicator and by setting the error variance of the indicator to 0. In each of the structural models we controlled for the effect of gender by including paths from gender to each of the constructs in the model.

Partial nonnormality was observed in some of the scales. Therefore, in all subsequent models, next to the covariance matrix, the asymptotic covariance matrix was used as input, and the Satorra-Bentler chi-square (SBS- $\chi^2$ ; Satorra & Bentler, 1994) instead of the common chi-square was used as fit index. The root mean square error of approximation (RMSEA), standardized root mean square residual (SRMR), and comparative fit index (CFI) were used to estimate model-fit, with respective values  $\leq .06$ ,  $\leq .09$ , and  $\geq .95$  indicating good fit (Hu & Bentler, 1999).

Prior to examining structural associations between the latent constructs, we examined the quality of the measurement model by means of confirmatory factor analysis. We estimated a measurement model using 19 observed variables to indicate six latent variables (gender, autonomy-supportive God, controlling God, autonomous regulation, controlled regulation, inclusion, and symbolic). Initial estimation of the measurement model suggested acceptable fit: SBS- $\chi^2(132) = 238.75$ ; RMSEA = .05; CFI = .97; SRMR = .06 and this fit could be further improved by allowing two correlations among indicators within the same latent variable: SBS- $\chi^2(130) = 198.38$ ; RMSEA = .04; CFI = .98; SRMR = .06. All indicators had strong loadings on their latent factors, ranging from .55 to .93 (all  $ps < .001$ ).

*Structural models.* The primary analysis proceeded in two steps. First, we tested the predictive effect of the two God perceptions on the two types of motives for religious behavior. This was done to examine specific and unique associations between the two God styles and the motives for religious behavior. Model fit was acceptable, SBS- $\chi^2(55) = 82.84$ ; RMSEA = .04; CFI = .99; SRMR = .05, and results showed that a perception of God as autonomy supportive

was positively related to autonomous motives ( $\beta = .32, p < .001$ ) and unrelated to controlled motives ( $\beta = -.12, p > .05$ ). Conversely, a perception of God as controlling was positively related to controlled motives ( $\beta = .34, p < .05$ ) and unrelated to autonomous motives ( $\beta = .04, p > .05$ ). Given that the paths from an autonomy-supportive God style to controlled motives and from a controlling God style to autonomous motives were not significant, these paths were not included in the subsequent models.

Second, we examined the mediational role of the motives for religion in associations between God styles and inclusion and symbolic. In line with procedures recommended by Holmbeck (1997), three models were estimated and compared to test for mediation. The first model was a direct effects model, including autonomy-supportive and controlling God as predictors of both inclusion and symbolic (see Figure 1 for a graphical display). Estimation of this model, SBS- $\chi^2(55) = 84.49$ ; RMSEA = .04; CFI = .99; SRMR = .07, showed that both a perception of God as autonomy supportive and a perception of God as controlling were positively to inclusion. In contrast, both perceived God styles were related differentially to symbolic, with a perception of God as autonomy supportive being positively related and with a perception of God as controlling being negatively related (Figure 1). The second model was a full mediation model in which the God perceptions were only indirectly related to inclusion and symbolic through the motives for religion. This model showed an adequate fit to the data, SBS- $\chi^2(137) = 305.67$ ; RMSEA = .06; CFI = .96; SRMR = .09. Next, we contrasted the fit of this model with a third model, that is, a partial mediation model in which the two direct relations from both God perceptions to subjective well-being were added to the full mediation model. This partial mediation model showed an adequate fit, SBS- $\chi^2(133) = 220.22$ ; RMSEA = .05; CFI = .98; SRMR = .07, and had a significantly better fit than the full mediation model,  $\Delta\text{SBS-}\chi^2(4) = 70.26, p < .001$ . This model is displayed in Figure 2. Inspection of the partial mediation model (Figure 2) showed that the path coefficient from an autonomy-supportive God to symbolic was no longer significant ( $\beta = .13, ns$ ) and that the path to inclusion, although still significant ( $\beta = .24, p < .05$ ), was reduced by 36%. In addition, we inspected the Sobel (1982) test to determine whether the indirect associations of autonomy-supportive God style to inclusion and symbolic (through autonomous motives) were significant. Both indirect effects were significant

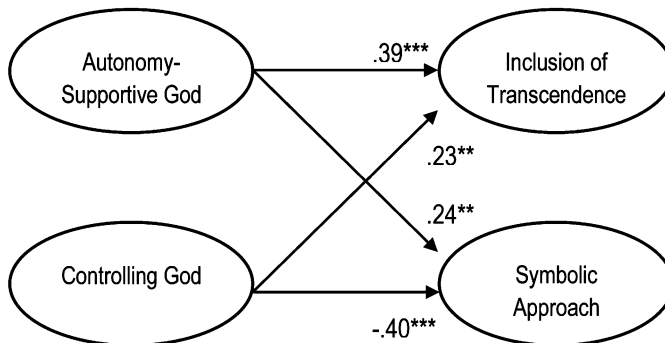


FIGURE 1 Model representing the effects of the perceptions of an autonomy-supportive and controlling God on dimensions of religious cognitive style. *Note.* Coefficients are standardized path coefficients. For the sake of clarity, gender effects are not shown. \*\* $p < .01$  and \*\*\* $p < .001$ .

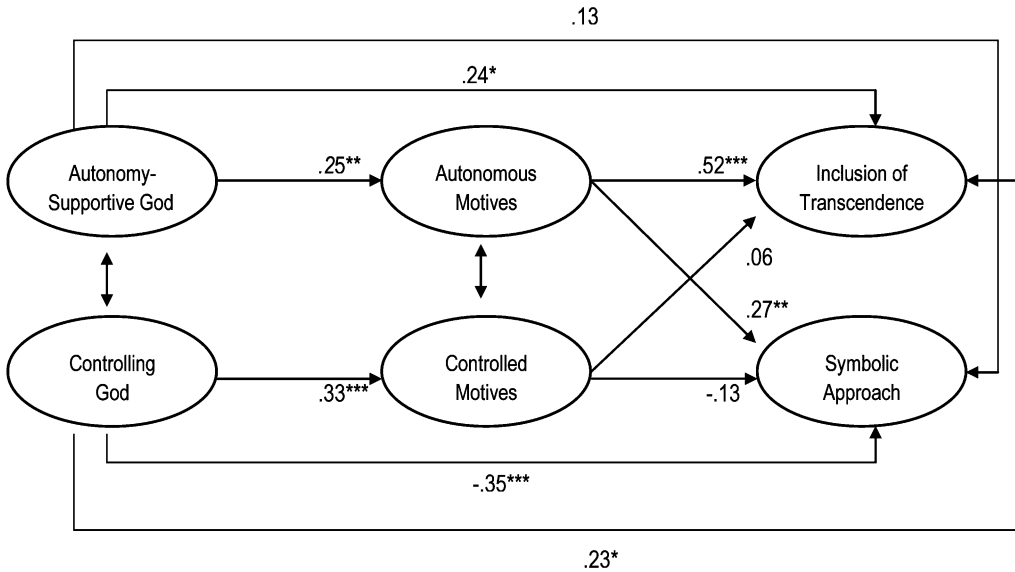


FIGURE 2 Model representing the effects of the perceptions of an autonomy-supportive and controlling God on motives for religiosity and dimensions of religious cognitive style. *Note.* Coefficients are standardized path coefficients. For the sake of clarity, gender effects are not shown. \* $p < .05$ ; \*\* $p < .01$ ; \*\*\* $p < .001$ .

( $z = 3.55, p < .001$  and  $z = 2.15, p < .05$ , respectively). These findings indicate that, whereas the association between autonomy-supportive God style and symbolic was fully mediated, the association between autonomy-supportive God style and inclusion was partially mediated.

In contrast, we found that the initially direct associations of a controlling God style with inclusion ( $\beta = .23, p < .05$ ) and symbolic ( $\beta = -.35, p < .001$ ) were still highly significant after taking into account the intervening role of controlled motives. When allowing direct paths from a controlling God style to inclusion and symbolic, controlled motives were even found to be unrelated to inclusion and symbolic ( $\beta = .06, ns$ , and  $\beta = -.13, ns$ , respectively). As a consequence, the indirect effects of controlling God style to inclusion and symbolic (through controlled motives) were nonsignificant ( $z = 1.25, p > .05$  and  $z = -1.48, p > .05$ , respectively). These findings indicate that associations between controlling God style and inclusion and symbolic were not mediated by controlled motives.

### Supplementary Analyses

To examine whether the perceptions of God as autonomy supportive and controlling would add to the prediction of the outcome variables in our study (i.e., inclusion and symbolic) over and above dimensions of attachment to God (i.e., attachment to God and dissatisfaction with God), we performed two hierarchical regression analyses. In Step 1, each of the two outcome variables was regressed on the two dimensions of attachment. In Step 2, perceptions of God as autonomy supportive and controlling were added as predictors. For both inclusion of transcendence and symbolic approach, the variables in Step 2 added significantly to the prediction,  $R^2_{\text{change}} =$

.03;  $F_{\text{change}}(2, 286) = 6.77, p < .001$  and  $R^2_{\text{change}} = .15$ ;  $F_{\text{change}}(2, 286) = 25.44, p < .001$ , respectively.

## DISCUSSION

In line with abundant SDT research on autonomy-supportive versus controlling interpersonal styles (e.g., Grolnick et al., 1997), we developed a measure to assess the concept of a perceived autonomy-supportive and controlling interpersonal God style. A perception of God as autonomy supportive entails that God (a) allows the believer the necessary freedom to make choices about how to organize his or her life and (b) takes the believer's perspective. In contrast, a controlling perception of God involves an image of God as pressuring people through a variety of controlling tactics. Factor analytical results showed that both styles could be reliably distinguished in the religious individuals' perceptions.

With respect to the construct validity of the Autonomy-Supportive and Controlling God scales, we found, as expected, that both God images relate differentially to measures of Relatedness to God (King et al., 1989) and Loving versus Controlling God images (Benson & Spilka, 1973). One important difference between the measure of autonomy-supportive and controlling God styles developed in this study and these extant measures of God image is that our measure taps into relatively specific behaviors and practices that characterize God's interpersonal style. In contrast, most extant measures (including the King et al., 1989, and Benson & Spilka, 1973, measures) tap into the experienced affective quality of individuals' relationship with God. We expected that autonomy-supportive and controlling behaviors and practices performed by God (as measured with our newly developed instrument) would relate meaningfully and differentially to affective qualities of the relationship with God (i.e., in terms of experienced attachment, love, and control), and this hypothesis was largely confirmed. A perception of God as autonomy supportive was related positively to feelings of attachment to God and negatively to dissatisfaction with God. Furthermore, a perception of God as autonomy supportive was related positively to an image of a loving God. Hence, when God is perceived as adopting an autonomy-supportive interpersonal style, feelings of warmth, security, and satisfaction are likely to follow. In contrast, the perception of a controlling God correlated positively with attachment to God; was unrelated to a loving God image; and, interestingly, was related positively with feelings of dissatisfaction with God. In other words, a controlling God perception seems to engender ambivalent feelings toward God. Given that a controlling God is perceived as expressing affection and approval in a conditional fashion, one might indeed experience some degree of connectedness (as expressed in the positive association with attachment to God). However, as this affection is conditional upon meeting the demands of God, such connectedness is likely to be shaky and fraught with feelings of ambivalence, leading one to experience one's relationship with God as dissatisfying. These results are consistent with findings by Assor et al. (2004), who reported adolescents' perception of their parents as conditionally approving to be associated with both more behavioral compliance with parental requests (thus reflecting some connectedness to parents) but equally well with feelings of resentment toward parents.

The finding that our measure of autonomy-supportive and controlling God style was related to, yet distinct from, well-established measures of attachment to God is not only relevant in



terms of construct validity but also interesting from a theoretical point of view. Specifically, given the prominent place of attachment theory in research on representations of God, one may wonder whether SDT has any added value compared to attachment theory. In this regard, it has recently been argued that attachment theory focused rather exclusively on the construct of sensitivity (Whipple, Bernier, & Mageau, 2011). Sensitivity is characteristic of attachment figures who respond adequately to their children's needs and distress and would, as such, would mainly contribute to a sense of closeness and comfort. However, in attachment theory it has been emphasized that, apart from providing a sense of closeness, another important task for socialization figures is to support and promote exploration and challenge seeking. Unfortunately, the encouragement of exploratory behavior by socialization figures is understudied within attachment theory. Autonomy support is highly relevant in this regard as it is considered an important factor in fostering exploratory behavior (Whipple et al., 2011). Consistent with this reasoning, we found in this study that perceptions of God as autonomy supportive and controlling were predictive of the outcome variables and of a symbolic approach to religion in particular, in addition to the effects of attachment to God. This is interesting because a symbolic approach can to some extent be considered a manifestation of open and unbiased exploration in the domain of processing religious contents. In sum, both the finding that attachment to God is distinct from perceptions of God as autonomy supportive and controlling and the finding that the latter variables contribute to the prediction of religious cognitive styles over and above differences in attachment to God underscore the value of an SDT-based analysis in addition to an attachment-based analysis.

As expected, both God perceptions correlated positively with inclusion of transcendence, suggesting that both individuals with a perception of God as autonomy supportive and individuals with a perception of God as controlling are more likely to hold religious beliefs. Of interest, both God perceptions yielded divergent relations with the way belief contents are approached and processed. Whereas an autonomy-supportive God style correlated positively with a symbolic and open approach to process religious contents, a perception of God as controlling correlated negatively to such a symbolic approach, indicating a more literal and rigid approach to religiosity. Thus, the psychological freedom provided by an autonomy-supportive God seems to allow religious individuals to interpret religious messages in a personal and flexible way. In contrast, if one perceives God as controlling, one will likely feel pressured to adhere strictly to principles imposed by God and religious leaders, leading one to interpret religious contents in a more literal way. These results are in line with Duriez, Soenens, Neyrinck, and Vansteenkiste (2009), who found that adults who rigidly and defensively stick to the Christian message were more likely to adopt a controlling parenting style in their childrearing. Thus, a literal interpretation of belief contents might both arise in a controlling interpersonal climate and serve as an antecedent of a controlling interpersonal style.

The associations between an autonomy-supportive God perception and both inclusion of transcendence and a symbolic approach were at least partially mediated by autonomous motives. The latter finding is in line with previous literature showing that autonomous motives represent important personal resources that serve an intervening role in the effects of autonomy-supportive interpersonal styles on individuals' functioning (Grolnick et al., 1997; Soenens et al., 2007; Vansteenkiste, Simons, et al., 2005). Unexpectedly, however, the relation of a controlling God perception to dimensions of religious cognitive style was not mediated by controlled motives for religion and was instead directly related to these dimensions, even when controlling for the

effects of motivational regulations. Because the present study is among the first to examine the mediating role of motivational regulations between God image and dimensions of religious cognitive style, we can only speculate about why the effect of an autonomy-supportive God image is mediated at least partially and the effect of a controlling God image is not. An inspection of the mean scores on the scales for the God perceptions shows that a controlling God image is far less prevalent than an autonomy-supportive God image. To the extent that people do have a controlling God image, this image may take a very pronounced and salient place in their religious experience. Perhaps because of this strong salience, a controlling God image may have a more direct effect on religious people's cognitive style that is not carried by motives for their religious involvement compared to the relatively more common image of God as autonomy supportive. Clearly, more research is needed to replicate these findings and to examine possible alternative explanations.

### Future Research Questions

One finding in need of clarification is the zero-correlation between autonomy-supportive and controlling perceptions of God. This finding is remarkable because, in SDT, autonomy-supportive and controlling styles are typically considered as contrasting or even incompatible dimensions (Grolnick, 2003; Soenens et al., 2007). The current findings suggest that at least some religious people perceive God as enacting both autonomy-supportive and controlling behaviors. It would be interesting for future research to use person-oriented analyses (e.g., cluster analysis) to examine naturally occurring profiles of perceived autonomy-supportive and controlling God behaviors. Such research would allow the examination of not only whether some people indeed perceive God as engaging in both types of behavior but also the motivational and social-cognitive profile associated with such a "mixed" God style.

A second direction for future research is to further examine associations between the SDT-based concepts of autonomy-supportive and controlling God styles and concepts derived from attachment theory. Rather than examining associations with relatively global and undifferentiated measures of security of attachment (as was the case in the present study), such research could rely on more fine-grained measures of types of attachment insecurity (e.g., dismissing and preoccupied attachment). Further, one central research question in attachment-based research is how attachment representations of God relate to attachment representations of important socialization figures, and parents in particular (e.g., Granqvist, 1998; Hall, 2007; Hall, Fujikawa, Halcrow, Hill, & Delaney, 2009; Kirkpatrick & Shaver, 1990). Two models have been examined to explain possible associations between both sets of attachment representations: (a) a correspondence model, which assumes a strong degree of continuity between attachment to socialization figures and attachment to God, and (b) a compensation model, which assumes that representations of God substitute for a lack of secure attachment to socialization figures. Both models could also be examined with regard to perceptions of God as autonomy supportive or controlling. Do people with perceptions of God as autonomy supportive also experienced their parents as autonomy supportive? Or does a representation of God as autonomy supportive compensate for a developmental history of controlling parent-child relationships? Examining such questions could further bridge attachment-based and SDT-based research on religiosity.

## Limitations

One important consideration is that this research was conducted in a highly secularized society. Although the participants in this study were religiously involved, the question can be raised whether all participants perceive God as a personal figure actively involved in their lives (either in an autonomy-supportive or a controlling fashion). God might also be conceptualized as an impersonal, transcendental force rather than as a person actively interfering in human affairs (e.g., Kirkpatrick & Shaver, 1990). We did not measure this kind of perception, and follow-up research might do so as perceptions of God as a transcendental and nonintervening force may be particularly prevalent in secularized societies. Related to this, we may not have captured all elements of autonomy-supportive and controlling God styles with our current measure. For instance, apart from empathy and the provision of choice, SDT also considers the provision of a rationale as an important feature of autonomy support. There may indeed be individual differences in whether people feel that God provides a clear and personally meaningful reason for the things that happen in their lives and for their misfortune in particular.

At the methodological level, the use of self-reports is an important limitation. Self-reports may be inaccurate because they may be biased by defensive processes, social desirability, and lack of self-awareness. In addition, an exclusive reliance on self-report measures possibly causes problems of shared method variance, such that associations between measures are artificially inflated. Compared to the paper-and-pencil questionnaire used in this study, interview studies and implicit measures may provide a richer and possibly more accurate view on participants' experience of God. Future research may also rely on experimental methods. For instance, one might try to prime representations of God as autonomy supportive or controlling and then examine whether the induced type of representations affects the way people interpret religious texts (i.e., literal or relatively more symbolic).

Further, our research design was cross-sectional in nature, such that we cannot draw conclusions about the direction of effects involved in associations between God styles and individuals' motivational and social-cognitive functioning. Both attachment theory and object-relational perspectives consider images of God as an important product of socialization experiences that precede orientations toward religiosity (e.g., Granqvist et al., 2007; Kirkpatrick & Shaver, 1990). However, the opposite direction of effects should also be considered as orientations toward religiosity may shape individuals' perceptions of God. For instance, a person with a literal approach to religiosity may justify his or her dogmatic attitude toward religious authority by presenting God as a punitive, harsh, and threatening entity. Hence, longitudinal research is needed, preferably also including measures of socialization experiences with parents and other attachment figures.

## Conclusion

A perception of God as autonomy supportive was related positively to a symbolic, flexible approach to religion, as well as to autonomous motives for religious behaviors. In contrast, a perception of God as controlling was related to a literal, rigid style of religious belief and to relatively more controlled motives for religious behavior. For religious people (a) to approach religious contents in an open and unbiased fashion and (b) to experience a sense of psychological freedom in one's religious behaviors, it thus seems important to have a perception

of God as accepting one's weaknesses and as providing choice. Both socialization figures (e.g., parents and teachers) and religious mentors (e.g., priests) may contribute to such a perception of an autonomy-supportive God, thereby potentially contributing to the quality of religious individuals' experiences.

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