

17 Adolescents' Social Development and the Role of Religion

Coherence at the Detriment of Openness

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Abstract

Previous reviews of research conclude that, overall, adolescents' religiosity is linked with many positive individual and social outcomes. Only negative forms of religion would imply negative outcomes. In the present chapter, such a conclusion is importantly nuanced. I systematically review here previous studies and present new data on the relation between religiosity (major forms of it) and key aspects of adolescents' social development: personality, values, identity status, and collective (ethnic and immigrants' new) identities. Attention is paid to provide cross-cultural information, when available. In addition, I present a new study integrating the cognitive, emotional, personality, and moral factors involved with religious doubting in adolescence. Consistently across studies and domains of social development, the findings are in favor of the "coherence at the detriment of openness" hypothesis. Adolescent religion seems to reflect stability, conservation, engagement, and cohesion, but potentially somehow at the detriment of plasticity, openness, exploration, and autonomy - all important for optimal development. Complementing others' argument that adolescence is a "sensitive" period for spiritual development, I argue that adolescence is also a "sensitive" period for religious doubting and agnosticism.

Adolescents' Social Development and the Role of Religion: Coherence at the Detriment of Openness

What role does religion play in adolescents' social development? More specifically, how does individual religiousness relate to or influence adolescents' personality, values, personal and collective identities, and social relationships? In recent years, several overviews of studies on the role of religion and spirituality on child, adolescent, and youth development in general have





been published (for major overviews, see Lerner, Roeser, & Phelps, 2008; Oser, Scarlett, & Bucher, 2006; Roehlkepartain, King, Wagener, & Benson, 2006; see also Boyatzis, 2009; Holden & Vittrup, 2010; King & Roeser, 2009; Scarlett & Alberts, 2010; Warren, Lerner, & Phelps, 2011). The major conclusion consistently observed from these reviews is that, overall, religion/ spirituality has a positive impact on many aspects of adolescent and youth development including meaning, identity, values, prosocial attitudes and behavior, social responsibility, life goals, adjustment, coping with adversity, emotion- and self-regulation, and healthy behaviors (low risk-taking and impulsivity-related behaviors). A very recent meta-analysis of 40 studies confirmed that the religious involvement of adolescents is positively associated with various constructive behaviors and negatively associated with various destructive behaviors (respective average effect sizes, Zs = .20 and -.17; Cheung & Yeung, 2011). Although most of these reviews are, by the nature of the existing literature, heavily based on cross-sectional and correlational studies, when longitudinal studies are available, they tend to confirm the trends in the findings (see, for instance, French, Eisenberg, Purwomo, & Sallquist, Chapter 6 in this volume).

In the present chapter, the conclusion regarding the positive role of religion/spirituality in the life of adolescents will be nuanced and, in a way, challenged. The argument that will be developed is that the positive outcomes or correlates of religiousness in adolescents' social development are limited. They point to a sense of coherence and stability, but constitute only part of the picture. In fact, adolescents' religiousness does not seem to reflect or contribute to the major trends of optimal development such as openness, autonomy, critical thinking, flexibility, and pluralism.

To support this argument, I will review the empirical research on the role religion plays with regard to four specific domains, each important for adolescent social development: (1) personality (integrative framework of the Five-Factor Model), (2) values (Schwartz's 1992 circumplex model of values), (3) personal identity (Marcia's 1980 model of identity statuses), and (4) collective identities (ethnic and transnational identities, and, for immigrant adolescents, origin and new identities). This review will be importantly, but not exclusively, based on studies (primary studies and meta-analyses) carried out in recent years in our laboratory. The review of domains (1) and (2) will be partly based on existing meta-analyses (Saroglou, 2010; Saroglou, Delpierre, & Dermelle, 2004), but new data will also be presented (e.g., from the European Social Survey and a study on children's values and religion). The review of domains (3) and (4) is totally new. Moreover, a new study will be presented that explores an additional domain, that is (5)—religious







doubt and the way it can be understood with respect to optimal adolescent development. Finally, in the conclusion, the major findings and the global argument from this review chapter will allow us to revisit the issue of positive versus negative effects of religion in adolescent social development. Suggestions for directions of future research will also be made.

Religion, Spirituality, and Universal Existential and Moral Issues: Clarifications

Before examining the main issues of the present chapter, it is important to define and clarify the constructs of religion and spirituality and their connection with, and distinction from, the universal human tendencies to deal with existential and moral issues.

There exists today some consensus among researchers that religion (or religiosity) and spirituality are overlapping but distinct constructs (Zinnbauer & Pargament, 2005; see also Flanagan, & Jupp, 2007). Empirical research has shown that religiosity and spirituality, despite several commonalities, differ in many psychological characteristics, predictors, and outcomes (Saroglou & Muñoz-García, 2008; Saucier & Skrzypińska, 2006). Religiosity is individuals' reference to (what they consider to be a) transcendence through beliefs, rituals, moral norms, and/or community, somehow regulated by an institutionalized authority. Spirituality is individuals' reference to (what they consider to be a) transcendence through personal beliefs, experiences, and/or moral attitudes that may be independent from any authority or organized group (Saroglou, 2011). However, within the context of organized religions, spirituality has been considered a part of religion (in addition to other aspects such as theology, rituals, and ethics). This is why the two constructs are still treated sometimes as interchangeable. Nevertheless, for the sake of scientific rigor and clarity of communication, it is important to keep the distinction between (traditional) religiosity and (modern) spirituality, at least when referring to modern societies that encourage sacred experiences that are autonomous from religious institutions. Indeed, although many people define themselves as "religious and spiritual," an increasing part of Western populations define themselves as "spiritual, not religious."

In the present chapter, the emphasis will be on the roles of religion and religiosity rather than on the role of (new forms of) spirituality in adolescent development. This is for two reasons. First, in the domain of adolescent development, most research has been carried out in religious contexts on adolescents who have most often received religious socialization in their





family or community in connection with some kind of religious institution and tradition. "Spiritual but not religious" adolescents constitute an emerging reality that will very likely be increasingly present. Studies on the role of (nonreligious) spirituality among these adolescents will soon constitute an important body of research to be reviewed. Second, and in line with the first, using the two terms as interchangeable or using a combined term such as "religion/spirituality" may lead to erroneous conclusions. It could, for instance, be suspected that some of the many positive effects of religion on adolescent development concluded by various studies and reviews previously cited may have been overestimated: spirituality's effects are overall more positive than those of religiosity, and thus "religion" may benefit undeservedly from being combined with "spirituality."

Finally, it is of interest to clarify another distinction. Religiosity and spirituality imply, but are not equivalent to, dealing with existential and moral issues and looking for self-transcendence. The latter are universal human dimensions, whereas being religious or spiritual is less universal. Indeed, religiosity and spirituality imply specific ways of dealing with universal existential and moral issues (e.g., affirmation that one's own life and the world are meaningful; emphasis on specific moral standards and norms; believing in an external, personal or impersonal, transcendence) (Saroglou, 2011). Other people, nonreligious and/or non-spiritual, may deny one or all of the above. The non-distinction between these constructs may contaminate results and inflate the positive effects of religion and spirituality. If, for instance, one conceptualizes and measures spirituality as including compassion for all beings, no doubt positive associations will be found between this construct and prosocial attitudes, values, emotions, and behavior.

Personality and Religiousness: Stability but not (Necessarily) Plasticity

High versus low interest and investment in religious attitudes, beliefs, and practices has traditionally been suspected to reflect, among other factors, individual differences in personality dispositions and traits. Using the terminology of the dominant model of the five basic personality factors, Saroglou and Muñoz-García (2008) stated:

A religious person may think, feel, and behave – personality traits by definition imply some consistency across these three activities – in a somewhat different way than a nonreligious person when facing stress and emotions ('neuroticism'), novelty ('openness to experience'), challenges from the internal and external world that ask for self-control, orderliness, and responsibility ('conscientiousness'), when







s/he is invested in interpersonal relationships ('agreeableness'), or is in contact and functions with others in general and in groups ('extraversion'). (p. 84)

Several dozen studies have investigated how religiousness, and its different forms, is associated with broad personality traits. Using the framework of the Five Factor Model, a recent meta-analysis of studies with 71 samples from 19 countries (total N = 21,715) showed that religiousness (but also fundamentalism and spirituality) is common among people who tend to be high in the dimensions of agreeableness and conscientiousness (Saroglou, 2010). These findings are consistent with those of dozens of other studies using Eysenck's model of personality, where religiousness has typically been found to relate to low psychoticism (Francis, 2009; Lodi-Smith & Roberts, 2007). The studies included in the recent meta-analysis come mostly from Western samples of Christian background, but a few existing studies in other religious and cultural contexts suggest the generalizability of the findings, at least among the three monotheistic religions and Buddhism. Closed-minded (e.g., fundamentalism) versus open-minded (e.g., spirituality) orientations are characterized by, respectively, low and high openness to experience. The other two personality dimensions, that is, extraversion and neuroticism, are either unrelated to religiousness in general or related to it only in very specific contexts (Saroglou, 2010).

Only three studies in that meta-analysis provided data on adolescents. These studies were carried out in Australia (Heaven & Ciarrocchi, 2007), Belgium (Duriez & Soenens, 2006), and Poland (Kosek, 1999). Interestingly, the mean effect sizes of the religiosity–personality associations in these three studies with adolescents parallel those found with young adults and adults (see Table 17.1). In other words, adolescents who are religious tend to be agreeable and conscientious, but not necessarily high or low on extraversion or neuroticism. Moreover, they tend to be slightly low in openness to experience. Several studies on adolescents, using the Eysenck's model, suggest similar personality tendencies toward prosociality, order, and responsibility (i.e., low psychoticism) (Francis, 2009).

Moreover, three longitudinal studies provided information on the causal direction suggesting that child and adolescent personality influences later attitudes toward religion. Religiousness in late adolescence, adulthood, and late adulthood was predicted by conscientiousness or low psychoticism, measured when the participants were children or adolescents (Heaven & Ciarrocchi, 2007; McCullough, Enders, Brion, & Jain, 2005; McCullough, Tsang, & Brion, 2003; Wink, Ciciolla, Dillon, & Tracy, 2007). In addition, adolescents who were open to experience tended to invest more in spirituality





Table 17.1. Mean Effect Sizes (r) of the Personality Correlates of Religiousness

Age Group	k (N)	Extraver- sion	Agreeable- ness	Conscienti- ousness	Neuroti- cism	Openness to Experience
Adolescents	3 (990)	05	.22	.20	.01	13
Young adults	31 (9,433)	.06	.17	.16	02	03
Adults	8 (2,281)	.12	.25	.14	01	09

Note: Results are taken from the meta-analysis by Saroglou (2010). k = number of studies. Mean effects are bold when > .10.

in late adulthood (Wink et al., 2007). Of course, the other causal direction, that is, influences of religiousness on adolescents' personality, cannot be excluded. However, the existing evidence is in favor of the idea that adolescents who are agreeable and conscientious tend to embrace – look for or maintain, depending on family's religious socialization – ideologies, practices, and groups (religion) that correspond to these personality tendencies by proclaiming and enforcing social harmony, quality in interpersonal relations, investment in life goals, personal order, and moral self-transcendence in general (Saroglou, 2010).

Agreeableness and conscientiousness are often considered to be the two "moral character" personality traits, since they imply social and personal responsibility (Cawley, Martin, & Johnson, 2000). These two broad personality traits are often found to point to a higher order personality dimension denoting *stability* and *regulation*. In contrast, openness to experience and extraversion – being more heavily "temperamental" factors – are often found to constitute a higher order dimension denoting *plasticity* and *growth* (Digman, 1997; Markon, Krueger, & Watson, 2005; but see Ashton, Lee, Goldberg, & de Vries, 2009). Thus, adolescent religiousness does not seem to necessarily reflect, or result from, personality dispositions for curiosity; experiential openness; alternative ways of thinking, feeling, and acting (openness to experience); or gregariousness, playfulness, and energy (extraversion).

There are a variety of possible trajectories in religiousness during adolescence and early adulthood. However, some decrease in religious practice, identification, and beliefs is a common trend in adolescent development and emerging adulthood (Dillon, 2007; Hood, Hill, & Spilka, 2009). Interestingly, this decrease seems to parallel, or better follow, the developmental changes of personality. Series of studies on the developmental changes of personality attest that, during adolescence, the mean level of







agreeableness and conscientiousness decrease, whereas the mean level of openness to experience increases (Roberts, Wood, & Caspi, 2008). It is very likely that the biological, cognitive, relational, and social changes that are concomitant to these personality changes lead to the questioning, doubting, reconsideration, and decrease of religiousness in adolescence (see more in a later section). Thus, the decrease of religiousness in adolescence may result from the same adaptive functions of these personality changes, that is, to distance oneself from what is known and familiar and to explore new and challenging alternatives.

Values and Religiousness: In-group Conservation but not (Necessarily) Openness

Value hierarchies can be observed universally but differ across groups depending, for instance, on culture, age, and gender, or across individuals as a function of individual differences (Schwartz, 2007). Religiosity of adults, but also adolescents and possibly children, may be more present among people with specific value hierarchies – or, taking the other causal direction, may have an influence on people's value hierarchies. Interestingly, both conceptually and empirically, religiosity is closer to values than to basic personality traits (Roccas, Sagiv, Schwartz, & Knafo, 2002; Saroglou & Muñoz-García, 2008).

Schwartz's (1992) model has been the dominant model of values in the last 20 years. This model includes 10 major values (more precisely, sets of several lower level-specific values) organized under two bipolar, almost orthogonal axes. The first axis opposes values denoting conservation (*tradition, conformity*, and *security*) against values denoting openness to change (*self-direction, stimulation*, and partly *hedonism*). The second axis contrasts self-transcendence (*benevolence* and *universalism*) to self-enhancement (*power, achievement*, and partly *hedonism*).

Another meta-analysis clarified the mean effect sizes of the associations between religiosity and value hierarchies using Scwhartz's model of values (Saroglou et al., 2004). This meta-analysis included 21 samples from studies in 15 different countries (total N = 8,551). In that meta-analysis, no distinct analyses were made by age group and there was no study on adolescents. Nevertheless, the majority of the samples consisted of young students (from 18 to 30 years old). The results confirmed earlier theorization and findings by Schwartz and Huismans (1995). Overall (see Table 17.2, first block), religiousness primarily implies valuing conservation (in particular, tradition and conformity) at the detriment of openness to change (self-direction,





Table 17.2. Correlations between Religiousness and Values

	TR	CO	SE	PO	AC	ST	HE	SD	UN	BE
Saroglou et al (2004)								7		
(k = 21, N = 8,551)	.45	.23	.07	09	11	26	30	24	09	.14
ESS 2 (25 countries)										
Adults (41,318)	.34	.16	.13	03	06	20	23	17	.03	.05
Adolescents (2,323)	.32	.15	.07	07	01	14	24	13	.04	04
ESS 3 (23 countries)										
Adults (38,042)	.32	.16	.14	04	10	18	23	13	.03	.04
Adolescents (2,055)	.29	.14	.09	09	03	11	23	13	.03	03
Boseret (2009))									
(N = 200 children)	.28	.08	.03	03	08	.00	15	19	03	.02

Note: For Saroglou et al. (2004), the reported results are weighted mean effect sizes of the meta-analysis (young adults and adults). For ESS2, ESS3, and Boseret (2009), simple coefficient correlations are reported. Adults $= \ge 19$ yrs old; adolescents = 13-18 years old; children = 9-12 years old. Correlations are bold when $\ge .10$. TR = Tradition; CO = Conformity; SE = Security; PO = Power; AC = Achievement; ST = Stimulation; HE = Hedonism; SD = Self-direction; UN = Universalism; BE = Benevolence.

hedonism, and stimulation). Additionally, religiosity implies valuing limited self-transcendence: benevolence toward in-group members, but not universalism; that is, broad concern for the welfare of all people and the world. Depending on the country's context, the association between religiosity and security may shift from positive (in traditionally religious countries) to negative (when the State is against religion, as in the ex-communist Eastern European countries; Roccas & Schwartz, 1997). The association of religiosity with universalism may turn out to be negative in countries with a dominant mono-religious tradition (e.g., Mediterranean countries of Catholic, Jewish, Muslim, and Orthodox tradition; Saroglou et al., 2004). In sum, general religious attitudes, beliefs, and practices imply valuing conservation and in-group care at the detriment of openness to personal and societal change and hedonism in life.

Very specific open-minded forms of religiousness such as symbolic religious thinking, religious quest (being open to doubting or questioning one's







own beliefs), and spirituality may still be concerned with valuing tradition and demonstrating low consideration for hedonism. However, these forms put the emphasis on the axis of self-transcendence (valuing both universalism and benevolence) versus self-enhancement (not valuing power and achievement) (Fontaine, Duriez, Luyten, Corveleyn, & Hutsebaut, 2005; Saroglou, 2008, for review). Nevertheless, it remains unclear whether these results are because of the specific religious forms under study or totally attributable to deeper social cognitive structures denoting flexibility, which in turn are translated, in the religious domain, into symbolic and relativistic religious thinking.

In order to examine whether adolescents' religiosity implies value hierarchies that may or may not be similar to those held by young adults or adults, I carried out, for the purposes of the present chapter, correlational analyses on the data of the European Social Survey (ESS), Waves 2 and 3 (http://www.europeansocialsurvey.org). This data (as in 2008) comes from, respectively, 25 and 23 countries (if combined, this makes 28 countries) and includes a total of, respectively, 45,175 and 40,757 participants.¹ Among these participants, there are 2,323 adolescents (13 to 18-year-olds) in ESS2 and 2,055 adolescents (14 to 18-year-olds) in ESS 3. Values in the ESS are measured through Schwartz's (2003) 21-item Portrait Value Questionnaire (also called Human Values Scale). I computed a global score of religiousness (Cronbach's alphas were .81 in both waves) by averaging the scores participants gave on three items measuring (1) personal religiousness ("Regardless of whether you belong to a particular religion, how religious would you say you are?"), (2) religious public practice ("Apart from special occasions such as weddings and funerals, about how often do you attend religious services?"), and (3) religious private practice ("Apart from when you are at religious services, how often, if at all, do you pray?").

The results from the correlational analyses are presented separately for adolescents and adults (all the non-adolescent participants) in Table 17.2 (second and third blocks). They replicate the results of the 2004 meta-analysis.² Moreover, religious adolescents hold value hierarchies that are similar to religious adults' ones, and the similarity in many cases is also reflected in the size of the effects. The only notable difference in effect size seems to be the fact that the modest association between religiousness and security among adults is even weaker in adolescents. Similarly, the negative association between religiousness and stimulation also seems to be attenuated when one shifts from adults to adolescents. These two differences may be because of age and/or cohort. Religiosity of contemporary adolescents, compared to older adults, expresses, to a lesser degree, strong conservatism





(security concerns) and discomfort with excitement and challenges in life (stimulation). However, it still reflects, globally across countries, social conformity and attachment to tradition (tradition, conformity, and low self-direction; in other terms, collectivist values) as well as anti-materialism and discomfort with sensuous gratification (low hedonism).

The major trends of adolescents' value hierarchies as a function of religiosity can be observed in an even earlier age, that is, among children of 9 to 12 years old. In the possibly only, to my knowledge, (unpublished) study on religion and Schwartz's values among children, Boseret (2009) distributed questionnaires on different aspects of beliefs and values to 200 Belgian children between the 4th and the 6th grades (mean age = 11.02, SD = 0.9; 40% boys). Values were measured by adapting for children the 21 items of Schwartz's (2003) Human Values Scale used for the European Social Survey. Religiosity was measured through three items referring to the importance of God in one's life, frequency of individual prayer, and frequency of prayer in the family (4-point scales; $\alpha = .72$). As shown in Table 17.2 (last block), children's religiosity was associated with high importance attributed to tradition, and low importance attributed to hedonism and self-direction.

There is thus some lifespan continuity from childhood to adulthood through adolescence in that individual religiosity parallels the preference of conservation values and the low consideration of values denoting autonomy change and hedonism. Taking into account the relative stability of personality throughout the lifespan, one can suspect the underlying personality traits (agreeableness and conscientiousness, but not necessarily openness) and corresponding values (conservation versus openness to change and hedonism) to be partly responsible for the overall relative stability of religiosity throughout the lifespan. Changes in religiosity (Hood et al., 2009), as well as changes in personality (Roberts et al., 2008) and values (Bardi & Goodwin, 2011), throughout the lifespan exist, but they are quantitatively less considerable than stability.

Beyond stability, developmental changes in values exist and seem to parallel changes of personality. More precisely, cross-sectional correlations between age and values in 20 countries (data from the ESS) show that hedonistic values (hedonism and stimulation) are of higher importance among people of younger ages compared to people of older ages, whereas the opposite is true for all three conservation values (Schwartz, 2007). Such developmental trends again parallel those of religiosity, which is lower in late adolescence and emerging adulthood but may increase in adulthood (Dillon, 2007).







Identity Status and Religiousness: Engagement but not (Necessarily) Exploration

In people's lives, and possibly more importantly in adolescent development, religion is often involved with identity processes and outcomes. Religion is indeed concerned, among other things, with providing answers to, and ways of dealing with, existential questions typically involved in personal identity (who I am, where do I come from, what is the goal of my life, and whether the world is meaningful). Having said this, it is more intriguing to examine which kind of identity is facilitated within a religious context, especially among adolescents.

Erikson (1968) distinguished between two key dimensions involved in the adolescent identity crisis, that is, exploration and commitment. Exploration involves testing out possible identity alternatives, whereas commitment entails choosing and investing in a given identity. Crossing these two dimensions, Marcia (1980) conceived four identity statuses: diffusion, foreclosure, moratorium, and achievement. The identity status of diffusion is characterized by a lack of both exploration and commitment. In *foreclo*sure, people have made identity commitments but have not gone through a process of exploration. *Moratorium* is the process of identity exploration and may or may not lead to commitments. Finally, individuals in identity achievement have gone through a process of exploration and made identity commitments. On the basis of existing evidence, a likely normative developmental process seems to be the transition from diffusion, as a starting point, to achievement, as an end point, with foreclosure and moratorium being somewhere in between, depending on many personal and situational factors (Meeus, Iedema, Helsen, & Vollebergh, 1999).

For the purposes of this chapter, I carried out a search for published studies on religion and identity status through PsycINFO. In total, 19 published studies among adolescents and late adolescents were identified, presenting results from 24 samples (see Table 17.3). The studies were carried out mostly in the United States and Belgium, but also in Canada and Israel. Participants were mostly of mainstream Christian traditions (Protestantism and Catholicism), but there were also studies on Jewish (Markstrom-Adams & Smith, 1996; Tzuriel, 1984), Muslim (Saroglou & Galand, 2004), and Mormon adolescents (Markstrom-Adams, Hofstra, & Dougher, 1994). The findings, beyond minor divergences, converge to demonstrate a clear pattern of how religiousness in general, and specific religious orientations in particular, are interconnected with identity status. General religiousness and indicators of religious involvement and practice are positively







Table 17.3. Studies on Religion and Identity Status in Adolescence and Late Adolescence

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Study	Sample (N)	Country	Rel. Dimensions	Major Findings
Duriez, Smits, and Goossens (2008)	Flemish (Catholic) adol. (724; longitudinal)	Belgium	Transcendence Symbolic R. style	
Duriez and Soennes (2006)	1. Flemish late adol. (332) 2. Flemish middle adol. (323)	Belgium	R. Transcendence Symbolic R. style	+Normative (1) +Infor, -Diff. (1, 2)
Duriez, Soenens, and Beyers (2004)	Flemish (Catholic) I. adol. (335)	Belgium	R. Transcendence Symbolic R. style	+Normative ident. +Inform., -Diff.
Fulton (1997)	White students in Christian college (176)	United States	Intrinsic R. Extrinsic R. Quest R.	+ACH, -DIFF +MOR, DIFF, FOR +MOR
Hardy, Pratt, Pancer, Olsen, and Lawford (2011)	Late adol. (418; longitudinal)	Canada	Religious change	-DIFF, -MOR, +FOR (changes)
Hunsberger, Pratt, and Pancer (2001)	University (132) and high school (937) students	Canada	R. commitment R. doubt Managing doubt	+FOR +MOR, +DIFF +ACH
Hutsebaut (1997)	Students (539)	Belgium	Orthodoxy Against religion	+FOR +DIFF
Klaassen and McDonald (2002)	Students in Christian university(160)	Canada	Quest R.	+MOR, -DIFF
Leak (2009)	Students (228)	United States	R. commitment Faith develop. R. fundamental.	+ACH +MOR -MOR





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Lee, Miller, and Chang (2007).	Christian Korean-American adol. (49)	United States	Intrinsic K.	+ACH, +FOR., -MOR., -DIFF.
Markstrom (1999)	Afrian- (62) and European- (63) American adol.	United States	R. practice	No findings
Markstrom-Adams and Smith (1996)	1. Mormon & non-M. adol. (85) 2. Jewish adol. (102)	United & Canad	Extrinsic R. Indiscriminate R.	+DIFF (1, 2) +FOR (1), ACH (2)
Markstrom-Adams, Hofstra, and Dougher (1994)	1. Mormon adol. (36) 2. Christian adol. (47)	United States	Church attend.	+FOR, -DIFF (1,2); +ACH(1), -ACH(2)
McKinney and McKinney (1999)	Students, mostly Christian (77) United States	United States	R. practice and commitment	-MOR, -DIFF
Padilla-Walker, McNamara Barry, Carroll, Madsen, and Nelson (2008)	Students (491), mostly Christian and European- American	United States	Religiosity	+FOR
Puffer, Pence, Graverson, Wolfe, Pate, & Clegg (2008)	Religious adol. (600)	United States	Religious doubt Quest R Intrinsic R.	Religious doubt H + MOR, + DIFF, + ACH, + MOR Quest R Thrinsic R.
Saroglou and Galand (2004)	 Native late adol. (81) Muslim immigrant late adol. (72) Other immigrant l. adol. (86) 	Belgium	Religiosity (R) Spirituality (S)	+ACH, +FOR (1,2,3), +MOR (1); -DIFF (1,3)
Tzuriel (1984)	Israeli students (1129)	Israel	Religiousness	+ Commitment and Purposefulness
Verhoeven and Hutsebaut (1995)	Students (1,438)	Belgium	R. practice Personal religion Irreligion	+FOR +ACH +DIFF

Note: R. = religious; ACH = achievement; DIFF = diffusion; FOR = foreclosure; MOR = moratorium.



associated with commitment in identity; that is, positively with achievement and/or foreclosure, and negatively with moratorium and/or diffusion. Finer distinctions are obtained when focusing on specific religious dimensions. Intrinsic religion or symbolic religious thinking predicts high achievement, whereas extrinsic religiosity or orthodoxy predicts high foreclosure. People high in moratorium tend to present many doubts about religion; they may also be high in quest religiosity or high in faith development.

The general trend, consistent across studies, countries, and religious traditions, is that religion in adolescence and youth implies, or at least is associated with, commitment but not necessarily exploration. Exploration in personal identity seems to be typical of a quest-religious orientation or faith development. Irreligiosity and religious doubts may also be characterized by exploration, but they may also reflect the presence of a diffused identity status.

Three studies in Belgium (Flanders) by Duriez and collaborators (see also Table 17.3) used Berzonsky's (1990) more recent model of three identity styles. This model distinguishes between informational, normative, and diffuse/avoidant styles.

Information oriented individuals deal with identity issues by actively seeking out and evaluating relevant information before making commitments. When confronted with information that is dissonant with their self-conceptions, they will revise these self-perceptions. Normative oriented individuals rely on the norms and expectations of significant others (e.g., parents or authority figures) when confronted with identity-relevant issues. They rigidly adhere to their existing identity structure, into which they assimilate all identity-relevant information. Diffuse/avoidant oriented individuals avoid personal issues and procrastinate decisions until situational demands dictate their behavior, resulting in a fragmented identity structure. (Duriez et al., 2008, p. 1024)

Consistently across the three studies, being a believer – a dimension these authors called Inclusion versus Exclusion of Transcendence – implied a normative identity style. Approaching the religious ideas in a symbolic rather than literal way implied an informative identity style and low diffuse/avoidant style.

Studies on religion and identity formation most often provide cross-sectional data and focus on patterns of individual differences. They are thus insufficient to inform us on the role of religion regarding the underlying processes and patterns of identity changes. Nevertheless, two recent longitudinal studies among Belgian (Duriez et al., 2008) and Canadian (Hardy et al., 2011) adolescents provide interesting initial evidence in favor







of bidirectional links between religion and identity formation. First, the maintenance of, or an increase in, religious involvement (attendance to religious service) across late adolescence and emerging adulthood predicts an increase in foreclosure and a decrease in diffusion and moratorium, that is, commitment but no exploration (Hardy et al., 2011). (An increase of commitment together with exploration, i.e., achievement, was present among adolescents with community involvement but not religious involvement). The opposite process also exists: once identity commitments are made, they facilitate religious involvement (Hardy et al., 2011). In addition, identity styles may or may not have real impact on being globally religious, but high versus low exploration in identity later influences the way one approaches religious ideas, symbolically versus literally, respectively (Duriez et al., 2008).

In sum, religion, compared to irreligion, follows and contributes to commitment in identity, often by adopting that which has been transmitted by authority figures and parents. A foreclosed identity is clearly present in traditional and orthodox religious environments. Irreligion is more often present among adolescents with low commitment but possibly also among those with high identity exploration. Only symbolic religious approaches and quest religious orientation seem to result from a process of actively seeking, testing, and revising information during identity formation.

Collective Identities and Religiousness: Ethnic but not (Necessarily) New and Transnational Identities

Beyond personal identity, children, adolescents, and adults deal with (re-) elaboration of their collective, social identities. This includes ethnic (and race) identity (Quintana & McKown, 2008), but also new (for those born of immigration), multiple, and transnational identities (e.g., European or citizen of the world). The focus of this section will be on the role of religion with regard to ethnic (for natives and immigrants), new/adoptive (for immigrants, in the process of acculturation), and transnational identities of adolescents and young adults.

As argued elsewhere (Saroglou & Cohen, in press), there are several reasons to favor the hypothesis that religiosity should relate positively to ethnic identity. The two share common collectivist needs and values, concerns for self-enhancement and collective self-esteem, as well as the need for self-transcendence. In addition, historically, religions and nations or ethnic groups have incarnated entities that seem to meet, through symbols,





rituals, and ideas, the human search for unity, continuity, and even wholeness (Saroglou, 2006). Sociological work has even established a typology of the relations between ethnicity and religion (see Kivisto, 2007). In few cases, the two may be independent (e.g., American Indians, Romania). However, in most cases, either (1) ethnicity reinforces religion (e.g., Serbian or Greek Orthodox, Church of England), or (2) religion is a major foundation of ethnicity (e.g., Amish, Jews), or shapes, colors ethnicity (e.g., Irish, Italian, or Polish Catholics).

Several studies suggest that adolescents' and young adults' religiosity positively relates to ethnic identity and pride, but not broader identities. As multi-country data from the European Values Study shows, young Europeans (18–29 years old) who identify strongly with their religion (Catholics and Protestants) exhibit a stronger national pride (Campiche, 1997), stronger feelings of belonging to their region and country, and weaker feelings of belonging to Europe and the world, compared to their nonreligious peers (Belot, 2005; Bréchon, 2003).

Other recent studies confirm the positive association between religiosity and ethnic (origin) identity among adolescents and young adults who live in Western countries and belong to ethno-religious minorities and/or are born of immigrants. However, these studies also show that religiosity within these ethnic minorities is either unrelated or negatively related to identification with the new, adoptive country and culture. This was found to be the case in European countries (Belgium and/or the Netherlands) for Jews (Saroglou & Hanique, 2006), Muslims of North African and Turkish descent (Friedman & Saroglou, 2010; Güngör, Fleischmann, & Phalet, 2011; Saroglou & Galand, 2004; Saroglou & Mathijsen, 2007; Verkuyten & Yildiz, 2007), and other (Christian) adolescents born of immigrants from different countries (Friedman & Saroglou, 2010; Saroglou & Galand, 2004). The same was the case in the United States with Asian-Americans and African Americans (but not Latinos; Ghorpade, Lackritz, & Singh, 2006), and Muslims from various countries (Sirin et al., 2008).

The relation of immigrants' religiosity with only strong ethnic/origin identity and, possibly, even weak identity with the new/adoptive culture seems to be rather consistent across studies. Note, however, that most often these studies include samples from ex-immigrant populations of low or medium socioeconomic status. An exploratory study on adult expatriates in Brussels, originating from other Western countries and working in European institutions or having good jobs in companies, suggested that the picture may be more complex, depending on the specific religious denomination. Indeed, among Protestants from North European countries and





Christians from the United States, religiosity was related to high identification with the host country, that is, Belgium, whereas the opposite was the case with Orthodox Christians coming from the Balkan countries; Catholics from other European countries were in the between (Rangel & Saroglou, 2010).

Is such a pattern of results positive or negative for adolescent and youth development? Some scholars have argued that religion's role in the development of a strong ethnic identity is part of positive youth development since it allows for integration into a community, a sense of belonging, pride that contributes to positive mental health, and the development of a sense of responsibility, especially for ethnic minorities and immigrants (e.g., Juang & Syed, 2008; King & Roeser, 2009). This may be true, especially as far as the mental health of immigrant and minority groups is concerned. Religious institutions, beliefs, and practices, as well as individual religiosity of the members of these groups are reasonably considered, both in sociological and psychological research, to positively contribute to several aspects of mental health, integration to a community, and social support (Cadge & Ecklund, 2007; Viladrich & Abraído-Lanza, 2009). Studies on African Americans confirm this idea (e.g., Bierman, 2006; Ellison, Musick, & Henderson, 2008).

Nevertheless, this is just part of a bigger picture. As the above mentioned studies in ethno-religious minorities suggest, strong identification with the culture of origin among religious adolescents and young adults born of immigrants does not seem to be paralleled by strong identification with, and acculturation into, the new, adoptive country; the two may even be in conflict. Thus, religiosity may contribute to adolescent immigrants' integration into their ethno-religious community (which in turn is beneficial when facing mental health risks and when needing a minimal insertion into a local community), but not to the broader multiethnic and multireligious national community (which supposedly contributes to optimal well-being and full and deep acculturation). Given the importance of developing a double positive identification with respect to both original and adoptive cultures (i.e., the optimal acculturation strategy of "integration"), doubts may occur as to how helpful religion may be for immigrants' full acculturation. This is what initial evidence suggests: religiosity predicts not only low identification with the adoptive country, but also low acculturation attitudes and practices (Ghorpade et al., 2006; Saroglou & Mathijsen, 2007). Moreover, there is some evidence that, under specific contextual influences (e.g., perceived discrimination, large cultural distance), religiosity of early adolescents from an ethno-religious minority





predicts prejudice toward other ethno-religious and convictional groups (Verkuyten & Thijs, 2010).

In the context of perceived discrimination and/or relations of conflict between the majority and the minority, it may be that religiosity directly or indirectly predicts low well-being among minority members. For instance, rather than buffering, religiousness was found to exacerbate the deleterious effects of discrimination and acculturative stress on depressive symptoms among Mexican-Americans (Ellison, Finch, Ryan, & Salinas, 2009). In another study on Belgian Muslim late adolescents and young adults born of immigrants, religiosity was found to indirectly relate to decreased self-esteem and increased depressive symptoms through perceived religious intolerance from the majority and feelings of anger toward the majority (Friedman & Saroglou, 2010).

Attachment to family and thus intergenerational transmission may be a key mediator of the preferential relation between religion and ethnic/origin identity rather than new, adoptive country identity and full acculturation. Research shows that family plays an important role in transmitting values, religion, and ethnic identities, especially among immigrants (Güngör et al., 2011; Knafo, Daniel, Gabay, Zilber, & Shir, Chapter 16 in this volume); and that family-related processes may be partially responsible for religious young people's well-being (Sabatier, Mayer, Friedlmeier, Lubiewska, & Trommsdorff, 2011) as well as heritage culture maintenance and weak acculturative change (Güngör et al., 2011).

Finally, note that the synthesis of recent research focused on the role of religion in collective identities for natives and immigrants. Interestingly, in contrast to religiosity, spirituality of adolescents and young adults implies high importance attributed to the value of universalism (Spain; Saroglou & Muñoz-García, 2008) and strong identification as a citizen of the world among adolescents of various cultural backgrounds: natives of Christian tradition, Muslims and Christians born of immigrants, all living in the same country (Belgium: Saroglou & Galand, 2004; Saroglou & Mathijsen, 2007). These studies suggest that a shift from traditional, in-group religiosity, to more open-to-the-world spirituality may be responsible for, or at least reflect, a valorization of universalistic ideals. However, prudence is needed. It may be that spiritual and religious adolescents and young adults, particularly those born of immigrants, who strongly identify with the citizen-of-the-world identity indeed point to a faith that transcends ethnic and national barriers (e.g., Universal Church for Christians, Ummah for Muslims, spiritual universe for non-atheists), but not necessarily a faith that supports multiple collective identities,







multiculturalism, and a universe fully tolerant of all convictions (see Saroglou & Galand, 2004).

Religious Doubt: Relational Insecurity but also Optimal Social Development

Doubting religious beliefs, and religion per se, is a process that typically emerges in adolescence (Hood et al., 2009). For instance, doubt may arise regarding religious beliefs' logical pertinence and relation to truth and regarding religion's social usefulness and moral quality. In psychology of religion, there has been some ambivalence regarding religious doubt. Initially, religious doubt was perceived to constitute a maturational process inherent to religious faith. In the conceptualization of religious quest as a specific reflective and mature religious orientation, valuing doubt is an important component that coexists with self-criticism and openness to the possibility of changing one's own beliefs (Batson, Schoenrade, & Ventis, 1993).

However, the empirical evidence suggests that, overall, religious doubt in adolescence is more often a precursor to "losing" religion than to a maturation of one's faith (Hood et al., 2009). Religious doubts are not exclusively focused on one or a few specific aspects of religion, but quickly become numerous and lead to more global negative attitudes toward religion, thus facilitating the decrease and abandon of religious practice, group identification, and beliefs (Altemeyer, 2004).

In addition, as far as psychological well-being is concerned, religious doubt is typically found to relate to psychological distress, anxiety, and low quality parent-child relationships, particularly among adolescents and young adults (Hunsberger, Pratt, & Pancer, 2002; Kézdy, Martos, Boland, & Horváth-Szabó, 2011). The causal direction may be double-sided. On one hand, adolescents who tend to be emotionally unstable and, in particular, insecure in their attachment to parents, may more easily fall into a state of turmoil with regard to religion as a way to express their discomfort and opposition to religious parents or to the environment of socialization in general. On the other hand, distancing oneself from one's parents and their religion may create a source of conflict and contribute to emotional instability and relational anxiety. In contrast with religious doubt, religious continuity in adolescence is facilitated in the context of emotional stability and positive quality relationships with one's parents. In turn, religious continuity may contribute to and enhance emotional and relational stability and positivity.





The argument that will be presented here is that, beyond its disadvantages in terms of emotional instability and relational insecurity, religious doubt may be a sign of, or contributor to, positive social development of adolescents in many other respects. Integrating fragmented evidence from previous research and theory, Scardigno and Saroglou (2009b) hypothesized that adolescent religious doubt points to many positive aspects of social development: personality (in particular, openness to experience), self- and relational development (individuation-autonomy with respect to parents and openness to peer influences), increased interest in sexuality (resulting in some disinhibition), moral development (in particular, high sensitivity to moral hypocrisy), and cognitive development (decreased magical thinking and increased rational thinking).

Scardigno and Saroglou (2009b) integrated each of these factors into the same study as correlates and predictors of adolescents' religious doubts. They administered questionnaires to 307 Belgian adolescents (12 to 20 years old; mean age = 15.37, SD = 1.75; boys = 44%) that measured attachment to parents (Hazan & Shaver, 1987), individuation with respect to parents (12 items from the Emotional Autonomy Scale; Schmitz & Baer, 2001), peer influence (ad hoc measure of seven items), disinhibition (i.e., the seeking of intense experiences in parties, social drinking, and sex – a subscale of the Sensation Seeking Scale; Zuckerman, 1971), sensitivity to moral hypocrisy (ad hoc measure of 11 items), magical thinking (subscale of the Disgust scale; Olatunji et al., 2007), abstract/rational thinking (20 items from the R80 and R85 intelligence tests that focus on logical results in resolving various kinds of problems), and openness to experience (from the Big Five Inventory; John, Donahue, & Kentle, 1991). In addition, they investigated the intensity of religious doubt through a measure of 11 items that, after an exploratory factor analysis, was found to tap three interrelated but distinct types of doubt. These were (1) cognitive doubts (religious beliefs do not seem to be true and logical), (2) social doubts (religion seems to be outdated with respect to the needs and challenges of contemporary society), and (3) moral doubts (human suffering and injustice raise doubt in religion) (Scardigno & Saroglou, 2009a).

The results on the associations between religious doubts and the hypothesized correlates are detailed in Table 17.4 (partial correlations controlling for gender and age did not change the results). With the exception of peer influences, all other hypothesized factors turned out to be significant. Religious doubts, most clearly the cognitive and social doubts, but occasionally also the moral doubts, were more present among adolescents with







Table 17.4. Types of Religious Doubt and Correlations with Aspects of Social Development

Aspects of Social Development	Cognitive Doubts	Social Doubts	Moral Doubts
Relational factors			
Insecure attachment (father) Insecure attachment (mother)	.11* .07	.15** .12*	.07 .11*
Self-development Individuation Peer influences	.22*** 07	.21*** .04	.07 .04
Moral factors Sensitivity to hypocrisy	.20***	.24***	.11*
Biological changes-based factors Disinhibition	.24***	.20**	.08
Cognitive factors Intelligence (abstract) Magical thinking	.20*** 16**	.11* 19***	.06 08
Personality Openness to experience	.15**	.15*	.04

Note: N=307. Results are taken from Scardigno and Saroglou (2009b). Copyright © 2009 by Rosa Scardigno and Vassilis Saroglou.

insecure attachment (to both father and mother), high openness to experience, need for individuation, sensitivity to moral hypocrisy, rational thinking, and, finally, low magical thinking. Distinct correlations by age group (three age groups were created) suggest that factors related to cognitive development (abstract thinking, low magical thinking), sexual development (disinhibition), and self-development (individuation) play a role in religious doubt from early adolescence (12–14 years old). From the age of 15–16 years, moral and personality factors (sensitivity to moral hypocrisy, openness to experience) also start to play a role in religious doubt.

Given some possible overlap between these various constructs associated with high religious doubt, a multiple regression analysis was also conducted. As shown in Table 17.5, it turned out that many dimensions involved in adolescent development uniquely and additively predict high religious doubt. This was the case with moral (sensitivity to hypocrisy), cognitive (low magical thinking), social-relational (individuation and insecure attachment), and sexuality-based (disinhibition) factors.

It seems reasonable to conclude from the results of that study that typical processes inherent to adolescent social development are responsible for





^{*} *p* < .05. ** *p* < .01. *** *p* < .001.

Table 17.5. Multiple Regression of Religious Doubt (Cognitive and Social) on the Significant Predictors

	B	t-test
Insecure attachment (parents)	.10	1.66†
Individuation	.12	1.97*
Disinhibition	.16	2.74**
Sensitivity to hypocrisy	.17	3.10**
Magical thinking	16	-2.86**
$R^2 = .15$		

Note: N=307. Results are taken from Scardigno and Saroglou (2009b). Copyright © 2009 by Rosa Scardigno and Vassilis Saroglou.

religious doubt in adolescence. Abandoning magical thinking and developing rational, abstract thinking can call into question religious beliefs and practices that may appear to be incompatible with truth and rationality (see also Nybord, 2009). Openness to experience and disinhibition place the priority of attention and interests on sexuality, gender relations, dating, and new, alternative, and sensation-seeking based experiences. Religion, with which the above constructs may be in conflict, is thus put in the margin. There is considerable evidence on religion's effect in adolescence and youth on inhibiting behaviors such as risk-taking activities, smoking, sexual behavior (Cheung & Yeung, 2011), and even humor (Saroglou, 2002). Aversion toward moral hypocrisy, alone or in combination with rational thinking, can lead to criticism of religious hypocrisy, especially in reference to institutions and important figures (see also Altemeyer, 2004). Finally, individuation can lead to reflection on and distance-taking from everything that represents the parental world, societal norms, and culture's established traditions. From this perspective, religion seems to be a susceptible target since it often represents an ancestral past and a component of the "establishment."

Therefore, one can wonder whether it is not more reasonable, instead of seeing adolescent religious doubt as a problem inducing potential risks for optimal development, to consider it as being in line with the adaptive functions of the many changes in adolescence. Integrating what was reviewed in the previous sections, one cannot neglect the fact that biological and social changes in adolescence result in personality, values, and identity changes that have obvious adaptive functions for growth, exploration, plasticity, and thus both personal and societal transformations. Distancing oneself from religion may thus be natural in light of these adaptive functions, whereas





^{*} p < .05. ** p < .01. † p < .10.



religious continuity without questioning may, from this perspective, be maladaptive. Thus, in comparison to childhood, where it seems to be somehow natural to hold (1) religious beliefs in counter-intuitive, mostly benevolent but surely omnipotent agents, (2) wishful thinking transformed in prayer, and (3) belief in intentionality and order in the world (Boyer, 2001; Keleman, 2004; Woolley & Phelps, 2001), religion in adolescence may be less natural.

Such a concluding argument may be seen to be in total contrast with the idea that adolescence is a "sensitive" period for spiritual development (Good & Willoughby, 2008). The authors define a sensitive period as "a span of time that is optimal for developing a certain skill, capacity, or behavior" (p. 32). They argue that normative developmental characteristics of adolescence may make teenagers more responsive to spiritual overtures. These characteristics are abstract thinking, metacognition, conversion and commitment experiences based on strong emotions, and the need to cope with adversity, as well as endurance of commitments throughout the lifespan. My argument is not really in contrast with but importantly complements it. First, Good and Willoughby (2008), maintain an ambiguity by using in their review "spirituality" and "religiosity" interchangeably. No doubt, normative developmental changes may push adolescents to orient themselves, through religious doubting, toward reflective and autonomous spirituality and mature forms of religion and faith (Oser et al., 2006; Scarlett & Albert, 2010). The question - at the center of the adaptive functions issue - is whether this process represents a major pathway or concerns a minority of adolescents. Evidence is in favor of the idea that in adolescence, at least in Western countries, religious doubting and apostasy is much more common than religious and spiritual conversions (Hood et al., 2009). Second, no doubt, adolescence may be a more sensitive, more efficient period for religious and spiritual conversions and commitments than later age periods; this may be interesting (in terms of applications) for those who value religion and/or spirituality. However, the same is true for alternative forms of worldviews and ideologies: adolescence, for reasons that are probably similar to those as for spirituality and religiosity, may be a "sensitive period" for agnosticism, irreligion, and atheism, too.

Conclusion: Positive or Negative Role of Religion?

The concluding argument of the present review will differ from conclusions of recent review books and chapters on religious and spiritual development in general or among adolescents in particular. In these reviews, as mentioned earlier in the introduction, the conclusions focus on the





positive role of religion (and/or spirituality), although the authors also acknowledge some negative aspects of religion. For instance, "involvement with religion can promote many aspects of adolescent wellbeing and identity and enhance one's sense of purpose and meaning in life and thus service towards others" (Boyatzis, 2009, p. 61); and "increased understanding will elucidate how spirituality may serve as a potentially potent aspect of the developmental system, through which young people can gain a greater understanding of themselves and their connections to the greater world in ways that fosters a sense of responsibility and compassion to the greater good" (King & Roeser, 2009, p. 471). More nuanced conclusions put the emphasis on some forms of religion: "higher stages of positive religious and spiritual development provide adaptive functions" (Oser et al., 2006, p. 991; my italics).

In those reviews, the negative aspects of religion are not totally neglected, but only briefly presented. Moreover, these aspects are located in negative forms of institutional and/or individual religion, such as belonging to cults, authoritarian religious groups, and terrorist organizations; having occultist practices, being extrinsic in religious orientation, having negative images of God, experiencing negative religious emotions, or having "pathological spiritual development;" and they are diagnosed by their negative effects especially in terms of prejudice, violence, and risks for mental disorder (Holden & Vittrup, 2010; King & Roeser, 2009; Oser et al., 2006; Scarlett & Albert, 2010; Wagener & Mlony, 2006).

I contest neither the positive role of religion (although some prudence is needed in light of the fact that most research is based on correlational data and paper-and-pencil measures) nor the negative effects of problematic religious expressions. However, it seems somehow easy to locate the negative effects on adolescents' development in only problematic religious forms. Additionally, it is easily acceptable that religious and spiritual expressions characterized by flexibility, questioning, symbolic thinking, and maturity lead to positive outcomes whereas authoritarian, dogmatic, or neurotic religious forms contribute to negative outcomes. It may also be that the real cause is not "religion" per se or its specific forms, but underlying social cognitive structures typical of closed-mindedness or neuroticism-related dispositions and traits.

What, on the contrary, is at the heart of the argument in the present chapter is that personal, general, common religiousness (positive attitudes toward religion, common religious beliefs, investment, practice, and/or identification) among adolescents sampled from the general population of average religiosity reflect, or contribute to, *limited* positive outcomes in relation to social development. Moreover, it is the same underlying processes







that explain both the positivity and its limitations. As the research reviewed in this chapter shows, adolescents' religion overall reflects, results from, or influences:

- (1) stability in personality (in relation with the self and the others) but not necessarily growth and plasticity;
- (2) in-group social responsibility and conservation of social order instead of individualism–hedonism in values but not necessarily universalistic concerns and autonomy, thus openness to change;
- (3) coherence, meaning, and goals that allow for a sense of engagement in personal identity, but not necessarily exploration of the alternatives and re-elaboration of this identity;
- (4) attachment to the ethnic identity and thus the origin identity for adolescents born of immigration but not necessarily attachment and acculturation to the new/adoptive culture, and endorsement of transnational, frontier-breaking identities; and
- (5) relational security in attachment but low need for individuation and disinhibition as well as a tendency for magical thinking and low abstract, rational thinking.

In sum, adolescent religion seems to lead to or consolidate social stability and personal coherence at the cognitive, moral, emotional, and social levels, but somehow at the detriment of openness, autonomy, flexibility, critical thinking, and pluralism, all important for optimal development. This concerns domains of major importance for adolescent social development such as personality, values, personal and collective identities, attachment to parents, individuation, sexuality, and cognition.

In a way, this double-sided role of religion in adolescence parallels what research has shown regarding religion's role in mental health and optimal well-being in general. On the basis of studies among members of new religious movements, Buxant and Saroglou (2008) concluded that belonging to these groups helps members feel good, since it provides structure and personal strength, especially in the context of previous vulnerability. However, this is at the detriment of optimal development and well-being, which include autonomy, flexibility, and critical thinking. Similarly, Gartner, Larson, and Allen (1991), reviewing research on religion and mental health in general, concluded that religion may be an efficient means to maintain or restore control in situations implying under-control, but nevertheless includes potential risks for over-control. Adolescent religiosity seems to function in a similar way: it fosters coherence, but one may need to look to other resources to enhance openness.





At least two issues seem to be key for future research. As mentioned earlier, an emerging part of Westerners, certainly adults but also adolescents, define themselves as no longer religious, but spiritual. The contrast between religion and spirituality seems stronger among adolescents than adults (Saroglou, 2003). To the extent that there is some shift from traditional religion to more autonomous and reflective forms of spirituality, it may be that some of the conclusions of the present review need to be re-examined. For instance, modern spirituality and symbolic forms of faith seem to be less characterized by discomfort with novelty and concerns for conservation of social order, family, and national security and instead reflects, more clearly than religiosity, ethical concerns of interpersonal care and self-transcendence (Fontaine et al., 2005; Saroglou & Muñoz-García, 2008).

Another important issue is how culture influences the religion's role with regard to adolescent social development (see, for instance, Bond, Lun, and Li, Chapter 5 in this volume; and Trommsdorff, Chapter 1 in this volume). Throughout different sections of the present chapter, the emphasis was in showing how the major lines of existing research seem to apply across various religious and cultural contexts. However, there is a tremendous need for more nuanced approaches that allow for detecting cultural specifics. Emerging research in psychology of religion and culture (Saroglou & Cohen, in press, for review) as well as in psychology of human development and culture (Bornstein, 2010, for review) confirms the importance of a culturally sensitive perspective on our psychological understanding of how religion works in people's, including adolescents', lives.

NOTES

- These countries are: Austria, Belgium, Denmark, Estonia, Finland, France, Germany, Hungary, Ireland, Norway, Poland, Portugal, Spain, Slovakia, Slovenia, Sweden, Switzerland, the Netherlands, United Kingdom, Ukraine (both waves), Czech Republic, Greece, Iceland, Luxembourg, Turkey (2nd wave), Bulgaria, Cyprus, and Russia (3rd wave).
- 2. When computing the average of the distinct-by-country correlations, the associations of religiousness with benevolence and universalism (positive) as well as power and achievement (negative) become slightly stronger (e.g., for ESS3, respectively, .09, .07, .08, and -.13). Note also that Schwartz (Chapter 4 in this volume) presents results distinct by religious group.

REFERENCES

Altemeyer, B. (2004). The decline of organized religion in Western civilization. *International Journal for the Psychology of Religion*, **14**, 77–89.







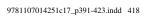
- Ashton, M. C., Lee, K., Goldberg, L. R., & de Vries, R. E. (2009). Higher order factors of personality: Do they exist? *Personality and Social Psychology Review*, **13**, 79–91.
- Bardi, A., & Goodwin, R. (2011). The dual route to value change: Individual processes and cultural moderators. *Journal of Cross-Cultural Psychology*, **42**, 271–287.
- Batson, C. D., Schoenrade, P., & Ventis, W. L. (1993). Religion and the individual: A social-psychological perspective. New York: Oxford University Press.
- Belot, C. (2005). Du local au mondial: Les espaces d'appartenance des jeunes Européens [From the local to the world: Belonging spaces among young Europeans]. In Galand & B. Roudet (Eds.), Les jeunes Européens et leurs valeurs [Young Europeans] and their values] (pp. 177–203). Paris: La Découverte.
- Berzonsky, M. D. (1990). Self-construction over the life-span: A process perspective on identity formation. *Advances in Personal Construct Psychology*, **1**, 155–186.
- Bierman, A. (2006). Does religion buffer the effects of discrimination on mental health? Differing effects by race. *Journal for the Scientific Study of Religion*, **45**, 551–566.
- Bornstein, M. H. (Ed.) (2010). Handbook of cultural developmental science. New York: Psychology Press.
- Boseret, L. (2009). Développement philosophique, spirituel et religieux: Impact du système éducatif [Philosophical, spiritual and cational system]. Unpublished Master's Université catholique de Louvain, Louvain-la-Neuve.
- Boyatzis, C. J. (2009). Examining religious and spiritual development during childhood and adolescence. In M. de Souza, L. J. Francis, J. O'Higgins-Norman, & D. G. Scott (Eds.), *International handbook of education for spirituality, care and wellbeing* (pp. 51–68). Dordrecht, Netherlands: Springer.
- Boyer, P. (2001). Religion explained. New York: Basic Books.
- Bréchon, P. (2003). Integration into Catholicism and Protestantism in Europe: The impact on moral and political values. In L. Halman & O. Riis (Eds.), Religion and secularizing society: The Europeans'religion at the end of the 20th century (pp. 114– 161). Leiden, Netherlands: Brill.
- Buxant, C., & Saroglou, V. (2008). Feeling good, but lacking autonomy: Closed-mindedness on social and moral issues in new religious movements. *Journal of Religion and Health*, 47, 17–31.
- Cadge, W., & Ecklund, E. H. (2007). Immigration and religion. *Annual Review of Sociology*, 33, 359–379.
- Campiche, R. J. (Ed.) (1997). Cultures jeunes et religions en Europe (Youth current and religions in Europe). Paris: Cerf.
- Cawley, M. J., It rtin, J. E., & Johnson, J. A. (2000). A virtue approach to personality. Personality and Individual Differences, 28, 997–1013.
- Cheung, C. K., & Yeung, J. W. K. (2011). Meta-analysis of relationships between religiosity and constructive and destructive behaviors among adolescents. *Children and Youth Services Review*, 33, 376–385.
- Digman, J. M. (1997). Higher-order factors of the Big Five. *Journal of Personality and Social Psychology*, **73**, 1246–1256.
- Dillon, M. (2007). Age, generation, and cohort in American religion and spirituality. In J. A. Beckford & N. J. Demerath, III (Eds.), The Sage handbook of the sociology of religion (pp. 526–546). London: Sage.







- Duriez, B., Smits, I., & Goossens, L. (2008). The relation between identity styles and religiosity in adolescence: Evidence from a longitudinal perspective. *Personality and Individual Differences* 44, 1022–1031.
- Duriez, B., & Soenens, B. (2006). Personality, identity styles, and religiosity: An integrative study among late and middle adolescents. *Journal of Adolescence*, 29, 119–135.
- Duriez, B., Soenens, B., & Beyers, W. (2004). Personality, identity styles, and religiosity: An integrative study among late adolescents in Flanders (Belgium). *Journal of Personality*, 72, 877–908.
- Ellison, C. G., Finch, B. K., Ryan, D. N., & Salinas, J. J. (2009). Religious involvement and depressive symptoms among Mexican-origin adults in California. *Journal of Community Psychology* 37, 171–193.
- Ellison, C. G., Musick, M. A., & Henderson, A. K. (2008). Balm in Gilead: Racism, religious involvement, and psychological distress among African American adults. *Journal for the Scientific Study of Religion*, 47, 291–309.
- Erikson, E. H. (1968). Identity: Youth and crisis. Oxford: Norton.
- Flanagan, K., & Jupp, P. C. (Eds.) (2007). A sociology of spirituality. Burlington, VT: Ashgate.
- Fontaine, J. R. J., Duriez, B., Luyten, P., Corveleyn, J., & Hutsebaut, D. (2005). Consequences of a multi-dimensional approach to religion for the relationship between religiosity and value priorities. *International Journal for the Psychology of Religion*, 15, 123–143.
- Francis, L. J. (2009). Comparative empirical research in religion: Conceptual and operational challenges within empirical theology. In L. J. Francis, M. Robbins, & J. Astley (Eds.), *Empirical theology in texts and tables* (pp. 127–152). Leiden, Netherlands: Brill.
- Friedman, M., & Saroglou, V. (2010). Religiosity, psychological acculturation to the host culture, self-esteem and depressive symptoms among stigmatized and nonstigmatized religious immigrant groups in Western Europe. *Basic and Applied Social Psychology*, 32, 185–195.
- Fulton, A. S. (1997). Identity status, religious orientation, and prejudice. *Journal of Youth and Adolescence*, **26**, 1–11.
- Gartner, J., Larson, D. B., & Allen, G. D. (1991). Religious commitment and mental health: A review of the empirical literature. *Journal of Psychology and Theology*, 19, 6–25.
- Ghorpade, J., Lackritz, J. R., & Singh, G. (2006). Intrinsic religious orientation among minorities in the United States: A research note. *International Journal for the Psychology of Religion*, **16**, 51–62.
- Good, M., & Willoughby, T. (2008). Adolescence as a sensitive period for spiritual development. Child Development Perspectives, 2, 32–37.
- Güngör, D., Fleischmann, F., & Phalet, K. (2011). Religious identification, beliefs, and practices among Turkish Belgian and Moroccan Belgian Muslims: Intergenerational continuity and acculturative change. *Journal of Cross-Cultural Psychology*, 42, 1356–1374.
- Hardy, S. A., Pratt, M. W., Pancer, S. M., Olsen, J. A., & Lawford, H. L. (2011). Community and religious involvement as contexts of identity change across late adolescence and emerging adulthood. *International Journal of Behavioral Development*, 35, 125–135.







- Hazan, C., & Shaver, P. R. (1987). Romantic love conceptualized as an attachment process. *Journal of Personality and Social Psychology*, 52, 511–524.
- Heaven, P. C. L., & Ciarrocchi, J. (2007). Personality and religious values among adolescents: A three-wave longitudinal analysis. British Journal of Psychology, 98, 681–694.
- Holden, G. W., & Vittrup, B. (2010). Religion. In M. H. Bornstein (Ed.), *Handbook of cultural developmental science* (pp. 279–295). New York: New York Psychology Press.
- Hood, R. W., J., P. C., & Spilka, B. (2009). The psychology of religion: An empirical approach (4th ed.). New York: Guilford.
- Hunsberger, B., Pratt, M., & Pancer, S. M. (2001). Adolescent identity formation: Religious exploration and commitment. *Identity: An International Journal of Theory and Research*, **1**, 365–386.
 - (2002). A longitudinal study of religious doubts in high school and beyond: Relationships, stability, and searching for answers. *Journal for the Scientific Study of Religion*, **41**, 255–266.
- Hutsebaut, D. (1997). Identity statuses, ego-integration, God representation and religious cognitive styles. *Journal of Empirical Theology*, **10**, 39–54.
- John, O. P., Donahue, E. M., & Kentle, R. L. (1991). The Big Five Inventory: Versions 4a and 54. Berkeley, CA: University of California, Berkeley, Institute of Personality and Social Research.
- Juang, L., & Syed, L. M. (2008). Ethnic identity and spirituality. In R. M. Lerner, R. W. Roeser, & E. Phelps (Eds.), Positive youth development and spirituality: From theory to research (pp. 262–284). West Conshohocken, PA: Templeton Foundation Press.
- Kelemen, D. (2004). Are children 'intuitive theists'? Psychological Science, 15, 295–301.
- Kézdy, A., Martos, T., Boland, V., & Horváth-Szabó, K. (2011). Religious doubts and mental health in adolescence and young adulthood: The association with religious attitudes. *Journal of Adolescence*, 34, 39–47.
- King, P. E., & Roeser, R. W. (2009). Religion and spirituality in adolescent development. In R. M. Lerner & L. Steinberg (Eds.), *Handbook of adolescent psychology* (3rd ed., pp. 435–478). Hoboken, NJ: Wiley.
- Kivisto, P. (2007). Rethinking the relationship between ethnicity and religion. In J. A. Beckford & N. J. Demerath, III (Eds.), The SAGE Handbook of the sociology of religion (pp. 490–510). London: Sage.
- Klaassen, D. W., & McDonald, M. J. (2002). Quest and identity development: Re-examining pathways for existential search. *International Journal for the Psychology of Religion*, **12**, 189–200.
- Kosek, R. B. (1999). Adaptation of the Big Five as a hermeneutic instrument for religious constructs. *Personality and Individual Differences*, **27**, 229–237.
- Leak, G. K. (2009). An assessment of the relationship between identity development, faith development, and religious commitment. *Identity: An International Journal of Theory and Research*, 9, 201–218.
- Lee, J., Miller, L., & Chang, E. S. (2006). Religious identity among Christian Korean-American adolescents. Psychological Reports, 98, 43–56.
- Lerner, R. M., Roeser, R. W., & Phelps, E. (Eds.) (2008). Positive youth development and spirituality: From theory to research. West Conshohocken, PA: Templeton Foundation Press.





- Lodi-Smith, J., & Roberts, B. W. (2007). Social investment and personality: A meta-analysis of the relationships of personality traits to investment in work, family, religion, and volunteerism. Personality and Social Psychology Review, 11, 68-86.
- Marcia, J. E. (1980). Identity in adolescence. In J. Andelson (Ed.), Handbook of adolescent psychology (pp. 159–187). New York: Wiley.
- Markon, K. E., Krueger, R. F., & Watson, D. (2005). Delineating the structure of normal and abnormal personality: An integrative hierarchical approach. Journal of *Personality and Social Psychology*, **88**, 139–157.
- Markstrom-Adams, C., Hofstra, G., & Dougher, K. (1994). The ego-virtue of fidelity: A case for the study of religion and identity formation in adolescence. Journal of Youth and Adolescence, 23, 453-469.
- Markstrom-Adams, C., & Smith, M. (1996). Identity formation and religious orientation among high school students from the United States and Canada. Journal of Adolescence, 19, 247-261.
- Markstrom, C. A. (1999). Religious involvement and adolescent psychosocial development. Journal of Adolescence, 22, 205-221.
- McCullough, M. E., Enders, C. K., Brion, S. L., & Jain, A. R. (2005). The varieties of religious development in adulthood: A longitudinal investigation of religion and rational choice. *Journal of Personality and Social Psychology*, **89**, 78–89.
- McCullough, M. E., Tsang, J. A., & Brion, S. (2003). Personality traits in adolescence as predictors of religiousness in early adulthood: Findings from the Terman Longitudinal Study. Personality and Social Psychology Bulletin, 29, 980–991.
- McKinney, J. P., & McKinney, K. G. (1999). Prayer in the lives of late adolescents. *Journal* of Adolescence, 22, 279–290.
- Meeus, W., Iedema, J., Helsen, M., & Vollebergh, W. (1999). Patterns of adolescent identity development: Review of literature and longitudinal analysis. Developmental Review, 19, 419-461.
- Nyborg, H. (2009). The intelligence-religiosity nexus: A representative study of white adolescent Americans. Intelligence, 37, 81-93.
- Olatunji, B. O., Williams, N. L., Tolin, D. F., Sawchuck, C. N., Abramowitz, J. S., Lohr, J. M., & Elwood, L. S. (2007). The disgust scale: Item analysis, factor structure, and suggestions for refinement. Psychological Assessment, 19, 281-317.
- Oser, F. K., Scarlett, W. G., & Bucher, A. (2006). Religious and spiritual development throughout the lifespan. In W. Damon & R. M. Lerner (Series Eds.) & R. M. Lerner (Volume Ed.), Handbook of child psychology: Vol. 1. Theoretical models of human development (6th ed., pp. 942-998). Hoboken, NJ: Wiley.
- Padilla-Walker, L. M., McNamara Barry, C., Carroll, J. S., Madsen, S., & Nelson, L. J. (2008). Looking on the bright side: The role of identity status and gender on positive orientations during emerging adulthood. *Journal of Adolescence* **31**, 451–467.
- Puffer, K. A., Pence, K. G., Graverson, T. M., Wolfe, M., Pate, E., & Clegg, S. (2008). Religious doubt and identity formation: Salient predictors of adolescent religious doubt. Journal of Psychology and Theology, 36, 270-284.
- Quintana, S. M., & McKown, C. (Eds.) (2008). Handbook of race, racism, and the developing child. New York: Wiley.
- Rangel, U., & Saroglou, V. (2010). Religiosity and acculturation among expatriates of high socio-economic status: An exploratory study. Unpublished raw data.







- Roberts, B. W., Wood, D., & Caspi, A. (2008). The development of personality traits in adulthood. In O. P. John, R. W. Robins, & L. A. Pervin (Eds.), *Handbook of personality: Theory and research* (3rd ed., pp. 375–398). New York: Guilford.
- Roccas, S., Sagiv, L., Schwartz, S. H., & Knafo, A. (2002). The Big Five personality factors and personal values. *Personality and Social Psychology Bulletin*, **28**, 789–801.
- Roccas, S., & Schwartz, S. H. (1997). Church-state relations and the association of religiosity with values: A study of Catholics in six countries. *Cross-Cultural Research*, 31, 356–375.
- Roehlkepartain, E. C., King, P. E., Wagener, L., & Benson, P. L. (Eds.) (2006). The hand-book of spiritual development in childhood and adolescence. Thousand Oaks, CA: Sage.
- Sabatier, C., Mayer, B., Friedlmeier, M., Lubiewska, K., & Trommsdorff, G. (2011).
 Religiosity, family orientation, and life satisfaction of adolescents in four countries.
 Journal of Cross-Cultural Psychology, 42, 1375–1393.
- Saroglou, V. (2002). Religion and sense of humor: An a priori incompatibility? Theoretical considerations from a psychological perspective. *Humor: International Journal of Humor Research*, 15, 191–214.
 - (2003). Spiritualité moderne: Un regard de psychologie de la religion [Modern spirituality: A psychology of religion perspective]. Revue Théologique de Louvain, 34, 473–504.
 - (2006). Quête d'unité: Spécificité religieuse d'une fonction non nécessairement religieuse [Quest for unity: Religious specifics of a non-necessarily religious function]. *Archives de Psychologie*, **72**, 161–181. English version retrieved from http://www.uclouvain.be/cps/ucl/doc/psyreli/documents/QuestForUnity.pdf
 - (2008). Religion and psychology of values: "Universals" and changes. In E. Agazzi & F. Minazzi (Eds.), Science and ethics: The axiological contexts of science (pp. 247–272). Brussels: Peter Lang.
 - (2010). Religiousness as a cultural adaptation of basic traits: A Five Factor Model perspective. *Personality and Social Psychology Review*, **14**, 108–125.
 - (2011). Believing, bonding, behaving, and belonging: The big four religious dimensions and cultural variation. *Journal of Cross-Cultural Psychology*, **42**, 1320–1340.
- Saroglou, V., & Cohen, A. B. (in press). Cultural and cross-cultural psychology of religion. In R. F. Paloutzian & C. L. Park (Eds.), Handbook of the psychology of religion and spirituality (2nd ed.). New York: Guilford.
- Saroglou, V., Delpierre, V., & Dernelle, R. (2004). Values and religiosity: A meta-analysis of studies using Schwartz's model. *Personality and Individual Differences*, 37, 721–734.
- Saroglou, V., & Galand, P. (2004). Identities, values, and religion: A study among Muslim, other immigrant, and native Belgian young adults after the 9/11 attacks. *Identity: An International Journal of Theory and Research*, **4**, 97–132.
- Saroglou, V. & Hanique, B. (2006). Jewish identity, values, and religion in a globalized world: A study of late adolescents. *Identity: An International Journal of Theory and Research*, 6, 231–249.
- Saroglou, V., & Mathijsen, F. (2007). Religion, multiple identities, and acculturation: A study of Muslim immigrants in Belgium. Archive for the Psychology of Religion, 29, 177–198.





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- Saroglou, V., & Muñoz-García, A. (2008). Individual differences in religion and spirituality: An issue of personality traits and/or values. *Journal for the Scientific Study of Religion*, 47, 83–101.
- Saucier, G., & Skrzypińska, K. (2006). Spiritual but not religious? Evidence for two independent dispositions. *Journal of Personality*, 74, 1257–1292.
- Scardigno, R., & Saroglou, V. (2009a, April). Religious doubt in adolescence: Types of doubts and the role of sensitivity to moral hypocrisy. Paper presented at the 7th Annual Mid-Year Conference on Religion and Spirituality, Columbia, Maryland, USA.
 - (2009b, August). Religious doubts in adolescence: Integrating the many dimensions of adolescents' development. Paper presented at the International Association for Psychology of Religion Conference, Vienna, Austria.
- Scarlett, W. G., & Alberts, A. (2010). Religious and spiritual development across the lifespan. In R. M. Lerner (Series Ed.), M. Lamb, & A. Freund (Vol. Eds.), The handbook of lifespan development: Vol. 2. Social and emotional development (pp. 631– 682). Hoboken, NJ: Wiley.
- Schmitz, M. F., & Baer, J. C. (2001). The vicissitudes of measurement: A confirmatory factor analysis of the Emotional Autonomy Scale. *Child Development*, 72, 207–219.
- Schwartz, S. H. (1992). Universals in the content and structure of values: Theoretical advances and empirical tests in 20 countries. In M. Zanna (Ed.), *Advances in experimental social psychology* (Vol. 25, pp.1–65). Orlando, FL: Academic Press.
 - (2003). A proposal for measuring value orientations across nations. In *European Social Study Questionnaire development report* (Chapter 7). Retrieved from http://www.europeansocialsurvey.org/
 - (2007). Value orientations: Measurement, antecedents and consequences across nations. In R. Jowell, C. Roberts, R. Fitzgerald, & G. Eva (Eds.), *Measuring attitudes cross-nationally: Lessons from the European Social Survey* (pp. 169–204). London: Sage.
- Schwartz, S. H., & Huismans, S. (1995). Value priorities and religiosity in four western religions. Social Psychology Quarterly, 58, 88–107.
- Sirin, S. R., Bikmen, N., Mir, M., Fine, M., Zaal, M., & Katsiaficas, D. (2008). Exploring dual identification among Muslim-American emerging adults: A mixed methods study. *Journal of Adolescence*, 31, 259–279.
- Tzuriel, D. (1984). Sex role typing and ego identity in Israeli, Oriental, and Western adolescents. *Journal of Personality and Social Psychology*, **46**, 440–457.
- Verhoeven, D., & Hutsebaut, D. (1995). Identity status and religiosity. *Journal of Empirical Theology*, **8**, 46–64.
- Verkuyten, M., & Thijs, J. (2010). Religious group relations among Christian, Muslim and nonreligious early adolescents in the Netherlands. *The Journal of Early Adolescence*, 30, 27–49.
- Verkuyten, M., & Yildiz, A. A. (2007). National (dis)identification, and ethnic and religious identity: A study among Turkish-Dutch Muslims. *Personality and Social Psychology Bulletin*, 33, 1448–1462.
- Viladrich, A., & Abraído-Lanza, A. F. (2009). Religion and mental health among minorities and immigrants in the U.S. In S. Loue & M. Sajatovic (Eds.), *Determinants of minority mental health and wellness* (pp. 149–174). New York: Springer.









- Wagener, L. M., & Malony, H. N. (2006). Spiritual and religious pathology in childhood and adolescence. In E. C. Roehlkepartain, P. E. King, L. Wagener, & P. L. Benson (Eds.), *The handbook of spiritual development in childhood and adolescence* (pp. 137–139). Thousand Oaks, CA: Sage.
- Warren, A. E. A., Lerner, R. M., & Phelps, E. (Eds.) (2011). Thriving and spirituality among youth: Research perspectives and future possibilities. New York: Wiley.
- Wink, P., Ciciolla, L., Dillon, M., & Tracy, A. (2007). Religiousness, spiritual seeking, and personality: Findings from a longitudinal study. *Journal of Personality*, 75, 1051–1070.
- Woolley, J. D., & Phelps, K. E. (2001). The development of children's beliefs about prayer. *Journal of Cognition and Culture*, **1**, 139–166.
- Zinnbauer, B. J., & Pargament, K. I. (2005). Religiousness and spirituality. In R. F. Paloutzian & C. L. Park (Eds.), *Handbook of the psychology of religion and spirituality* (pp. 21–42). New York: Guilford.
- Zuckerman, M. (1971). Dimensions of sensation seeking. *Journal of Consulting and Clinical Psychology*, **36**, 45–52.



