

# Adolescence as a Sensitive Period for Spiritual Development

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**ABSTRACT**—*This paper explores the possibility that adolescence may be a sensitive period for the development of spirituality. Evidence suggests that many of the normative developmental characteristics of adolescence may make teenagers more responsive to spiritual overtures. We review research on the characteristics of adolescent psychological development in conjunction with research on spirituality. On the basis of this research, we hypothesize that adolescents may be more likely than individuals in other age groups to engage in spiritual exploration, have a conversion experience, and make spiritual commitments that endure throughout the life span.*

**KEYWORDS**—*adolescent development; spirituality; religiosity*

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Developmental psychologists have shown renewed interest in the role of spirituality in the lives of children and adolescents. Researchers have suggested that spirituality and religiosity may be developmental assets for young people (Crawford, Wright, & Masten, 2006). For example, spirituality and religiosity are associated with greater mental health (e.g., Frankel & Hewitt, 1994; Ross, 1990; Ryan, Rigby, & King, 1993), more positive family relationships (e.g., Good & Willoughby, 2006; Mahoney, Pargament, Tarakeshwar, & Swank, 2001), academic success (e.g., Regnerus, 2002; Regnerus & Elder, 2003), and fewer problem behaviors (e.g., Hope & Cook, 2001; Regnerus, 2001; Regnerus & Elder, 2003; Youniss, Yates, & Su, 1997).

As with any developmental asset, it is essential for researchers and clinicians to understand how spirituality and religiosity develop over time. Although developmental scholars have conducted extensive research on other assets such as social

skills, emotional well-being, and academic success, they have devoted less attention to spirituality. In addition, spirituality and religiosity are often thought to be independent constructs. Spirituality is typically characterized as more private thoughts or behaviors that are not necessarily associated with formal religion (i.e., prayer, meditation, spiritual beliefs), whereas religiosity is defined as behavior associated with organized religion, such as church attendance. Despite these differences, however, religiosity and spirituality are fairly highly correlated, and both are associated with positive adjustment. Treating spirituality and religiosity as completely separate constructs may also fail to accurately reflect how religion and spirituality are experienced in the lives of individuals (Zinnbauer & Pargament, 2005; Zinnbauer et al., 1997). For instance, to characterize religion as solely institutional is to disregard the fact that a fundamental objective of every major religious institution is to facilitate personal belief, emotion, and experience with the sacred. Similarly, to define spirituality as completely individual and experience based is to ignore the fact that spiritual experiences often happen within the context of organized religion. In this article, we primarily focus on experiential processes that occur within an individual (i.e., thoughts, beliefs, experiences); however, we acknowledge that such experiences are often inextricably linked to public, social contexts, and behaviors.

Researchers who study religiosity and spirituality have often ignored developmental factors. There is a general consensus, however, that the average timing of religious commitment or conversion tends to be in adolescence (e.g., Donelson, 1999; Spika, Hood, Hunsberger, & Gorsuch, 2003), although more longitudinal research is needed to confirm this consensus (Levenson, Aldwin, & D'Mello, 2005). We hope to encourage research on the developmental course of religiosity and spirituality by presenting evidence that suggests adolescence may be a sensitive period for spiritual development.

A sensitive period can be defined as a span of time that is optimal for developing a certain skill, capacity, or behavior. During a sensitive period, an individual is particularly susceptible to environmental influences that foster those

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abilities (e.g., Bornstein, 1989). A common example is learning a second language, where it is often proposed that childhood (i.e., before puberty) is the optimal time to develop native-like proficiency in a second language. An individual can still learn a second language after puberty, but he or she probably will be unable to achieve the same level of proficiency (e.g., Krashen, Long, & Scarcella, 1979). In this article, we explore the reasons why intrapersonal, cognitive, and neurological development in adolescence may make adolescents particularly likely to (a) explore spiritual and religious ideals and philosophies, (b) experience a spiritual or religious conversion or commitment, and (c) make spiritual or religious commitments that endure over time.

### **ADOLESCENCE AND THE EXPLORATION OF SPIRITUAL AND RELIGIOUS IDEAS**

As individuals enter adolescence, their aptitude for abstract thought increases. The capability to think abstractly allows individuals to consider and generate hypotheses about unfamiliar (as opposed to real, familiar, or concrete) situations and ideas (e.g., Inhelder & Piaget, 1958; Overton, Ward, Noveck, Black, & O'Brien, 1987). The same cognitive skills that allow adolescents to solve for  $x$  in an algebraic equation also enable them to think about the future, imagine themselves in different roles, debate with their friends about moral issues, and consider solutions to problems such as world hunger.

Adolescents' increased capacity for abstract thought also enables them to consider different ideas about spiritual concepts. As this capacity grows, they may find themselves asking difficult, abstract questions such as "How can a loving God exist when there is so much pain and suffering in the world?" The ability to ask and reason intelligibly about these kinds of questions may be more advanced among young people who are well versed in religious or spiritual concepts than those who are less well versed (Markovits, 1993). Furthermore, because adolescents are better able than children to engage in deductive reasoning (e.g., Chapell & Overton, 1998; Ward & Overton, 1990), they may have a greater capacity to systematically test their hypotheses about abstract spiritual questions and to draw conclusions on the basis of what they find.

Another key cognitive capacity that emerges in adolescence is metacognitive orientation, which is the ability to reflect on and evaluate one's own ideas and the ideas presented by other people (Moshman, 1998). In a review of the research on metacognitive abilities, Byrnes (2003) states that whereas children tend to assume that all knowledge is certain and objective, adolescents are able to consider multiple perspectives and to evaluate the validity of different perspectives using evidence or reasoning-based methods. Therefore, adolescents have at their disposal a newfound cognitive ability to critically evaluate the sources from which they have received knowledge about spiritual matters. For instance, they may begin to question

whether there is adequate evidence that the holy books of their religions are actually inspired by God.

Support for the hypothesis that adolescents may be particularly likely to engage in religious and spiritual exploration also comes from the identity formation research. Identity formation is a crucial component of intrapersonal development in adolescence (e.g., Erikson, 1968), and it has been suggested that that commitment to a set of spiritual beliefs (whether they be theist, atheist, or agnostic) may be a key means of identity commitments (Kroger, 1996; Schwartz, 2001). Indeed, adherence to a spiritual belief system typically involves the adoption of a particular worldview and set of ideologies concerning work, love, life, and death. Therefore, not only might the search for the self precipitate questioning in adolescents about what they have been taught regarding spirituality but also it could facilitate the adoption of identity commitments.

### **ADOLESCENCE AND SPIRITUAL CONVERSIONS AND COMMITMENT EXPERIENCES**

One outcome of religious and spiritual exploration during adolescence may be a conversion or commitment experience (Erikson, 1964). Recent research indicates that these experiences are quite common among U.S. adolescents. For example, using data from a nationally representative survey (the National Study of Youth and Religion) that employed a random digit-dial telephone survey of U.S. households, Smith and Denton (2006) reported that 55% of all adolescents reported having "made a personal commitment to live life for God." Even when considering only those teenagers who reported they were "not religious," 13% said they had made a personal commitment to live life for God. These statistics suggest that religious or spiritual commitment experiences happen for large numbers of teenagers today, even for those who are not affiliated with a religious group.

Zinnbauer and Pargament (1998) define conversion as a gradual or sudden process where a change involving the sacred occurs in an individual. Conversion can involve either the religious or the spiritual tradition in which one was raised or a completely new tradition (Spika et al., 2003). These types of experiences may be associated with pleasurable feelings (Newberg & Newberg, 2005; Spika et al., 2003). Empirical support for this hypothesis comes from a small number of experimental studies examining the relation between brain activity and spiritual, religious, and paranormal experiences. Although this field of research is still in its infancy, results from several studies using positron emission tomography suggest that spiritual experiences may be correlated with distinct neural patterns, such as increased blood flow in the limbic structure (which is associated with emotion) as well as the frontal and parietal structures (areas associated with thought, cognition, and belief; Azari, Missimer, & Seitz, 2005; Azari et al., 2001; Persinger, 1993, 1997). It is possible that the nature of conversion experiences may interact with the normative

emotional and cognitive characteristics of adolescents in such a way that may make adolescents particularly susceptible to experiencing a spiritual commitment or conversion.

### Emotion, Cognition, and Conversions

Adolescence is a period of heightened emotions; teenagers tend to have higher highs and lower lows than children or adults (Dahl, 2004). This intensity may be particularly salient for negative emotions such as depression and anxiety (e.g., Jessor & Jessor, 1977; Larson, Csikszentmihalyi, & Graef, 1980; Larson & Ham, 1993). Dahl (2004) states that although adolescents are in possession of this set of “turbo-charged emotions” (p. 17), they often do not possess the cognitive maturity to fully regulate these emotions. Researchers have suggested recently that the prefrontal cortex, which controls self-regulatory capacities such as impulse control, planning, and foresight, may not be fully mature until young adulthood (Giedd, 2004; Hooper, Luciana, Conklin, & Yarger, 2004; Luciana, 2006). In a recent study, Galvan et al. (2006) presented functional magnetic resonance imaging (fMRI) brain showing that areas of the brain involved in planning and control developed later than areas of the brain that are sensitive to immediate rewards. In short, there is strong evidence to suggest that adolescents, on average, are less skilled than adults at logically considering consequences before engaging in behavior. The choices that adolescents make, consequently, may often be guided by intense emotions in the moment rather than by calculated decision-making processes (Steinberg, 2004).

One result of this interaction between high-intensity emotions and relatively immature cognitive abilities may be sensitivity to opportunities for conversion. Spika et al. (2003) state that conversions may frequently follow a “behavior first, then belief” sequence of change. An adolescent who, in the moment, senses an intense love and affection from or “oneness” with a higher power may act on these feelings and make a religious or spiritual commitment without first considering the ramifications of such a commitment (e.g., sacrificing sleeping in on Sunday mornings to attend worship services or giving up pork or alcohol or extramarital sex). An adult, however, may be much more likely to look past the emotion of the moment and use foresight and planning in considering the long-term implications of a commitment. Although these inhibitory cognitive skills may make it easier for adults to avoid making impulsive spiritual commitments, they could also reduce the likelihood of having intense spiritual experiences.

Conversion represents only one type of emotionally intense spiritual or religious experience (Newberg & Newberg, 2005). Adolescents may also be more likely to become involved in other experiences (i.e., group ritual, individual prayer, meditation) that are associated with intense feelings, such as awe, peace, tranquility, and ecstasy (Newberg & Newberg, 2005).

Adolescent insensitivity to reward, wherein adolescents must engage in intense, thrilling activities to experience the same kind of pleasurable feeling that an adult may experience from an

everyday task (e.g., Spear, 2000b; Vaidya, Grippo, Johnson, & Watson, 2004), could make teenagers more likely than children or adults to seek out religious or spiritual experiences that produce pleasurable feelings. Simply going to church, for example, may not provide sufficient stimulation for adolescents; rather, they may seek out more intense experiences that satisfy their desire for novel, exciting activities. Church-based groups have long understood this adolescent need for intense stimulation, and during the past several decades, many religious organizations geared toward teenagers have adopted an MTV-style youth ministry to attract the younger generation (Gerson, 2006; Steptoe, 2006). Smith and Denton (2006) lend support for the possibility that adolescents may be drawn toward more exciting, less traditional forms of spiritual and religious experiences. For instance, 45% of all teens surveyed by Smith and Denton had attended at least one religious conference, rally, retreat, or congress; 51% had an experience of spiritual worship that was very moving or powerful; 50% believed they had experienced a definite answer to prayer or specific guidance from God; and 46% believed they had witnessed or experienced a miracle from God.

### Stress, Negative Life Events, and Conversion

Stress and negative life events are other important factors to consider in why adolescents may be susceptible to religious or spiritual conversions. There is a substantial body of empirical evidence linking stress to conversions. Compared with non-converts, adults who reported a recent religious or spiritual conversion also reported experiencing more stressful life events and personal problems (Kox, Meeus, & Hart, 1991; Zinnbauer & Pargament, 1998) and lower self-esteem (Kox et al., 1991), and they were more likely to have an insecure adult attachment style (Kirkpatrick, 1997, 1998; Zinnbauer & Pargament, 1998). This link between stress and conversions is relevant for the purposes of this paper because researchers have suggested that the entry into adolescence may be associated with an increase in stressful or negative life events (e.g., Larson & Ham, 1993; Spear, 2000b). Furthermore, adolescents may not yet have developed the skills for regulating the powerful emotions that accompany these stressful events (e.g., Chambers, Taylor, & Potenza, 2003; Galvan et al., 2006). The tendency for adolescents to report more intense negative emotions may also be related to stress perception rather than actual stressful events; adolescents often perceive life events as being more stressful than do children or adults (Spear, 2000b). Allen and Matthews (1997), for example, found that in response to a laboratory stressor, adolescents showed a greater increase in blood pressure and heart rate than children. Similar results have been found in experiments with adolescent rats (e.g., Hascoet, Columbel, & Bourin, 1999; Walker, Trottier, Rochford, & Lavalley, 1995). Because stressful or negative life events are sometimes associated with spiritual or religious conversion, it is possible that increased exposure to stress in adolescence coupled with an adolescent

cognitive bias toward perceiving events as more stressful could contribute to adolescent susceptibility to conversion.

### ENDURANCE OF ADOLESCENT SPIRITUAL COMMITMENTS

There is a dearth of research on whether spiritual commitments made in adolescence are more likely to “stick” than adulthood conversions. There is indirect empirical and theoretical evidence, however, that implies religious or spiritual commitments made in adolescence (and perhaps in early adulthood) may be more likely to endure throughout the life span. The first line of evidence for this claim comes from the identity formation literature. Longitudinal research has determined that although adolescence is a period of ideological exploration (Erikson, 1968), firm commitments to a set of personal beliefs (including spirituality and religiosity) tend to increase as individuals move into young adulthood (e.g., Adams, Bennion, & Huh, 1989). Studies of college students have demonstrated that ideological identity commitments generally increase from the beginning of 1st year to the end of 3rd year in college (e.g., Adams & Fitch, 1982; Adams et al., 1989).

By the time individuals enter adulthood, therefore, many of their ideological commitments may be fairly well established. These studies are relevant for our purposes because young adults’ major decisions such as choice of career or a spouse may often be related to their ideological commitments. For example, young people tend to select marriage partners who are similar to themselves in terms of social class, religion, personality, intelligence, and educational plans (e.g., Simpson & Harris, 1994). There is also evidence that young adults consider their personal values in career-related decision making. For example, Constantine, Miville, Warren, Gainor, and Lewis-Coles (2006) report that college students often used prayer, church, and Bible reading to help deal with career-related challenges. Several researchers have also suggested that individuals may consider their career to be an extension of their spiritual values, wherein the spiritually or religiously motivated desire to serve others, treat others with kindness and compassion, and follow the call of God is fulfilled in part through their vocation (e.g., Duffy, 2006; Lips-Wiersma, 2002).

This evidence implies that it may be more difficult to form and maintain spiritual commitments after adolescence. Spiritual and religious “plasticity” may decrease substantially after adolescence and early adulthood because by that time, one’s career, marriage, and family patterns (which were likely decided on the basis of the values one committed to in adolescence and early adulthood) are already established. Consider how difficult it would be for a 40-year-old adult to adopt a Buddhist spiritual orientation (where one of the main tenets is the rejection of attachment to worldly possessions) when he or she selected a career or a spouse based on a very different set of ideological values in early adulthood. Adoles-

cent conversion experiences, therefore, may be more likely to result in commitments that endure over the life span because adolescents are searching for ideologies to which to commit, and religiosity can help fill that need (Kroger, 1996; Schwartz, 2001). Adults, on the other hand, who have already successfully resolved this identity crisis, may be less likely to engage in spiritual exploration or make a spiritual commitment that does not correspond with one’s established lifestyle.

Finally, research on the relation between memory and emotion also lends indirect support to the hypothesis that religious or spiritual commitments made in adolescence may be more likely to endure throughout the life span. It is well established that memories of emotionally charged events (so long as they are not extraordinarily stressful) are recalled more readily than everyday, less emotional events, and they are remembered with more accuracy and vividness (e.g., LaBar & Cabeza, 2006; Richards & Gross, 2006). Given the emotionally charged nature of conversions and other spiritual or religious experiences in adolescence, it is conceivable that religious and spiritual experiences that occur in adolescence may remain more salient in an individual’s memory than such experiences in adulthood (because they may be much less emotionally intense). In adulthood, an individual may come back to these salient, emotionally intense adolescent memories as reasons or evidence for which they should remain committed to their religious or spiritual beliefs.

### CONCLUSION

The evidence presented in this article suggests that because of the unique developmental changes that occur during and following puberty, adolescence may be a sensitive period for spiritual development. Existing research, although providing no conclusive evidence, supports the hypotheses that adolescents may be more likely than children or adults to (a) engage in spiritual exploration, (b) have a spiritual conversion or commitment experience, and (c) make spiritual commitments that endure throughout the life span. Longitudinal research is necessary to provide concrete support for these propositions. It also is important to note that the different facets of spiritual development (i.e., exploration, conversion, commitment) may be more or less important during different periods of adolescence. Young adolescents may be more focused on spiritual exploration, whereas issues of enduring commitment may be more likely to come to the foreground in late adolescence. Furthermore, highly emotional spiritual experiences should decrease over time as adolescents become more skilled in regulating their own emotions. It also may be important to examine the age-specific events that occur during adolescence that may make this age particularly important for spiritual development (e.g., increasing importance of peer groups). Furthermore, researchers may wish to consider how spirituality may function uniquely within other periods of the life span such

as childhood and adulthood. For example, major life events (such as divorce or death of a loved one) may precipitate spiritual development at ages other than adolescence. Exploring these issues could lead to a more comprehensive understanding of the developmental pathways of spirituality.

The perspective presented in this article may be of particular interest to researchers who study adolescent development and clinicians who work with adolescents, given that it offers a positive interpretation of some adolescent characteristics that are typically thought to be associated with negative behavior. Recent papers by Dahl (2004), Spear (2000a, 2000b), and Steinberg (2004, 2005, 2007), for instance, have stated that the combination of adolescent intense emotions and prefrontal cortex immaturity may explain why risk taking and problem behavior increase during adolescence. We suggest that these same characteristics could also make adolescents more likely to engage in spiritual experiences, which may be a positive behavior that promotes well-being for some adolescents.

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