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**From Faith to Compassion? Reciprocal Influences of Spirituality, Religious
Commitment, and Prosocial Development During College**

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Introduction

The development of caring, altruistic, and responsible citizens is a salient social concern, and one that continues to animate various lines of research in the social sciences. Given that most religions promote compassion or caring, religious and spiritual influences are never far from the discussion. Yet as Kohn (1990) points out, the relation between religious orientation and prosocial engagements is complex. Religious faith may prompt care and work for justice, yet differences across religions—heightened in part by the events of September 11th in the United States—continue to yield public conflicts from the local to the international. Fostering skills and abilities to negotiate such tensions is an important challenge for institutions of higher education, both secular and faith-based.

The traditional college years are an especially relevant time for exploring the meaning of faith commitments (Parks, 1986) and for the development of moral reasoning (King & Mayhew, 2004) and civic and social responsibility (Brandenberger, 2005). Although youth may become—by some indicators—less religious during their undergraduate years (Regnerus & Uecker, 2007), students express significant spiritual interest (Lindholm, 2007), and recent research indicates that college may best be described as a period of reexamination (Pascarella & Terenzini, 2005) or a means to prevent religious decline (Uecker, Regnerus, & Vaaler, 2007). Concurrently, most colleges and universities over the last few decades have called for renewed emphasis on service and civic responsibility among college students (see Sullivan, 2000). A groundswell of initiatives—incorporating service-learning, community engagement, and civic action—have recognized, at least implicitly, that students actively seek meaning and purpose during the college years. Yet theoretical grounding for such initiatives is limited (Brandenberger, 1998),

and we know little about *how* students' sense of meaning and spiritual purpose develops over the college years.

The Spirituality in Higher Education study facilitated by the Higher Education Research Institute (Astin, Astin, & Lindholm, 2011a) provides an unparalleled opportunity to examine the influence of religion and spirituality on prosocial development in higher education. Do religious commitment and spiritual identification during college predict increased prosocial orientation or behavior? Reciprocally, does prosocial involvement prompt religious or spiritual growth? We address such questions in the current study, utilizing data from 136 colleges and universities.

Literature Review

Prosocial Development

Theorists and researchers define *prosocial* to include cognitive and/or behavioral elements in which individuals focus on or voluntarily commit to actions that benefit others (Eisenberg, Cumberland, Guthrie, Murphy, & Shepard, 2005). Research on prosocial development has focused on both personality factors and contextual influences. In a thorough review, Penner, Dovidio, Piliavin, and Schroeder (2005) emphasized that prosocial development may best be studied through multilevel analyses ranging from the micro (e.g., brain functioning) to the macro level (examination of group behavior such as cooperation or volunteering). Berman (1997) presented a developmental view of a related construct, social responsibility, built on an array of cognitive and social elements, including a sense of care, justice, efficacy, and integrity (for a further discussion of responsibility, see Damon & Bronk, 2007).

Nancy Eisenberg and associates demonstrated age-related changes in prosocial reasoning: As individuals mature, they are able to move beyond hedonistic motivations to considerations of reciprocity (Eisenberg, Carlo, Murphy, & Van Court, 1995) and develop perspective-taking

abilities that undergird prosocial responding (Eisenberg et al., 2005). Eisenberg et al. (2005) also summarized research that indicates while some age-related changes exist, individuals demonstrate relative continuity across the lifespan in their propensity toward prosocial reasoning.

Research on prosocial development during college is limited, but there are indications that higher education has the potential to foster meaningful attention to prosocial concerns. For example, research at the Higher Education Research Institute (HERI) by Astin (1993) showed a significant rise in students' scores on a measure of social activism over four years, which was the largest gain among six personality types identified at the start of college. In addition, research on moral development (King & Mayhew, 2002; Pascarella & Terenzini, 2005) demonstrated a significant relationship between participation in higher education on moral reasoning (as indicated by the Defining Issues Test or similar measures). In fact, prosocial purpose orientations during the college years predict both prosocial purpose and psychological well-being in young adulthood (Bowman, Brandenberger, Lapsley, Hill, & Quaranto, 2010; Hill, Burrow, Lapsley, Brandenberger, & Quaranto, 2010).

Religious Commitment and Prosocial Behavior

The relation between religion and prosocial orientation is a longstanding question, and one that has prompted various studies in the social sciences and beyond (for example, see Bateson, 1983, for a review from the perspective of sociobiology). In an extensive study of altruism conducted by Oliner and Oliner (1988), fifteen percent of those who rescued Jews during the Holocaust cited religion, God, or Christianity as one of the reasons they decided to risk involvement. Interestingly, a larger portion (26%) of those who were rescued projected that religion was among the reasons prompting the actions of the rescuers. Indeed, most assume that religion is a central force in prompting moral action, so much so that Hunter (2000) argued that

declining religious participation across Western cultures portends the “death of character,” because character is fundamentally built on the “creeds, the convictions, the ‘god-terms’ ... sacred to us and inviolable within us” (p. xiii).

In a review of the literature, Saroglou, Pichon, Trompette, Verschueren and Dernelle (2005) suggested that “the theoretical evidence in favor of a possible—probably limited—effect of religion on prosociality is...strong and systematic” (p. 324). The authors noted that the effect of religion is more robust in relation to close “targets” (persons known to the individual) than for outgroup members or universal prosocial themes (e.g., concern for all humanity). In a related study (Pichon & Saroglou, 2009), activation of religious associations among participants prompted more frequent helping responses (for close targets) than secular priming, and participants’ just-world beliefs played a mediating role in their prosocial responding. Further, a meta-analysis by Saroglou, Delpierre, and Dernelle (2004) found that the degree of individuals’ religious orientation and commitment (among Christians, Muslims, and Jews) predicted the salience of key values, such as a higher valuing of security and benevolence and a lower valuing of universalism. Such studies call for further research to examine the impact of various types of religiosity (e.g., intrinsic vs. extrinsic) and the direction of influence between religious commitment and prosocial orientation.

Religious interest among college students varies significantly by institution, but the majority demonstrates some religious interest and behavior (Astin et al., 2011a). Higher education is a primary context for thousands of youth to encounter the creeds and insights of the world and to face the challenge of examining personal convictions in light of those they encounter. For those of traditional college age, such encounters are especially salient because students’ cognitive abilities are sufficiently (though not fully) matured, prompting for many an

active (and often critical) exploration (Parks, 2000). Detailed overviews of the religious attitudes of American adolescents and emerging adults are provided in Smith (2009) and Smith, Faris, Lundquist Denton, and Regnerus (2003).

Spirituality

Spirituality is often defined more broadly than religiosity, with a focus on seeking the sacred or ultimate truth without the institutional boundaries of organized religion (Newberg & Newberg, 2008). While some may conceptualize spirituality first as private and individual, it often entails a quality of connectedness (Love & Talbot, 1999). *Faith* is a similar concept that can develop in a religious context or beyond. Parks (1986) argued “that the seeking and defending of meaning pervades all of human life” (p. 14); that is, all individuals must develop a sense of coherent understanding of the world and their place in it. It is this active sense of meaning making—which can be associated with spirituality—that Parks labeled *faith* (which she described as a verb). For some individuals, faith flows from religious foundations; for others, it is built on more secular, personal worldviews.

In a similar vein, Fowler (1995) outlined stages of general faith development, proceeding from egocentric assumptions through more universal considerations. Newberg and Newberg (2008) presented neurobiological evidence for a “developmental spirituality,” noting correspondences between spiritual experiences and brain developments common at various ages within Fowler’s framework.

Spirituality may also prompt prosocial responding. Indeed, the Dalai Lama claims that compassion and service are necessary components of any definition of spirituality (Dalai Lama XIV, 1999). While there is limited research in this arena—most studies focus on the link between religion and prosocial responding—a study by Saroglou et al. (2005) found links

between spirituality and helping, empathy, and altruism. The authors also noted that those identifying as spiritual were more likely to extend their prosocial attention to outgroup or universal targets than those categorized as religious. Such differences may be mediated by individuals' belief structures and conceptions of justice (Pichon & Saroglou, 2009) and warrant further exploration.

The Role of Higher Education

Religion has a long-standing role in higher education (Kuh & Gonyea, 2006; Stamm, 2006). Harvard and similar colleges were established for religious training and formation. Over decades, many such institutions became modern secular universities that find encounters with religious issues more problematic than essential. Still, there are hundreds of faith-based colleges in the United States, and increases in enrollment on such campuses have outpaced enrollment in secular institutions since 1990 (Galarza, 2006). Moreover, students arrive on campus with significant religious and spiritual interest. In surveys by the Higher Education Research Institute (2004), 79% indicate they believe in God, 69% note that "religious beliefs provide strength, support and guidance," and 47% say that it is "very important" or "essential" to "seek out opportunities to help me grow spiritually."

While attention to the spiritual and religious life of students has received limited or conflicted attention over the last few decades, colleges and universities have increasingly focused on promoting service-learning and civic engagement (Speck & Hoppe, 2004). Some have suggested that service-learning and related pedagogies may be important means to prompt moral and religious reflection, even or especially at public universities, for such pedagogies may avoid the challenges associated with entangling the religious and the secular (Dalton, 2006). Recently, higher education has shown renewed interest in holistic education (Kronman, 2007;

Lewis, 2006) and spirituality on campus (Chickering, Dalton, & Stamm, 2006; Lindholm, 2007; Speck & Hoppe, 2007). Research on the impacts of higher education on prosocial development, as mediated by religion and spirituality, is an important next step.

Reflection: Research in Context

Our work as researchers does not take root in neutral contexts. The authors are part of a larger enterprise of major universities—one faith-based and one public—that care about prosocial development among their students, yet need to negotiate the boundaries of public good and private freedom that come into play in educational contexts. We sense that concern for others gets stirred up by authentic spiritual and religious encounter, yet cannot be implemented homogeneously or through involuntary programs. Reciprocally, we have witnessed that engagement in prosocial efforts can sometimes prompt spiritual and religious interest where little previously existed.

Thus, we have developed research questions that revolve around the potential reciprocal relationships between spirituality, religious commitment and prosocial behavior. When we turned to the research literature to address such questions, we found little that examines the role of higher education directly. We are excited to address this gap, but we realize that we need to do so with breadth and depth, going beyond the reach of our own institutions. We are also aware that our research framing and conclusions will be influenced by our own personal journeys and institutional contexts. We hope to draw on the best of social science research methods while seeing ourselves and respective conclusions in the context of higher education as a diverse and complex enterprise.

Research Questions

This study examines prosocial development in relation to spiritual identification and religious commitment during the college years. Our primary focus is on prosocial development as an outcome or dependent variable, but we are also interested in the potential impact of prosocial orientation on religious and spiritual outcomes.

While such topics have received recent attention in higher education practice, very little research has systematically examined such constructs or the relationship between them in the context of college. Prosocial orientation, spirituality, and religion are broad constructs that warrant careful definition of terms and measurement, but they are not “ineffable” (Chickering & Mentkowski, 2006). The present research improves on existing studies by using well-documented, multi-item scales and nationwide data through the UCLA Spirituality in Higher Education project.

Figure 1 presents a conceptual model that undergirds our study. The direct paths signify potential causal influences, whereas the curved lines with bidirectional arrows represent constructs that are likely correlated. Importantly, multiple indicators of prosocial development were used to convey relevant behaviors, values, and self-perceptions. Three primary research questions were addressed:

1. To what extent are spirituality and religiosity associated with changes in prosocial development?
2. To what extent are prosocial behaviors, values, and self-perceptions associated with changes in spiritual and religious development?
3. To what extent is religiosity associated with changes in spiritual development, and vice-versa?

Method

Data Source and Measures

This study analyzed longitudinal data collected by HERI from over 14,000 students during students' first and junior years of college. For dependent variables, we used the existing HERI constructs of *spiritual identification*, *religious commitment*, *religious struggle*, *ethic of caring*, *charitable involvement*, and *compassionate self-concept*. Of the three prosocial indicators, ethic of caring is attitudinal, charitable involvement is behavioral, and compassionate self-concept is based on self-perceptions. Detailed information about the items and scales used here is provided in chapter two of this book and in Astin, Astin, and Lindholm (2011b).

Students' levels of spiritual identification, religious commitment, religious struggle, ethic of caring, charitable involvement, and compassionate self-concept upon entering college were included as independent variables. Other precollege variables included gender (0 = male, 1 = female), age (1 = 16 or younger, to 10 = 55 or older), and parental education (mean of mother's and father's education; 1 = grammar school or less, to 8 = graduate degree). Several dichotomous variables indicated race/ethnicity: African American/Black; American Indian/Alaska Native; Asian American/Asian and Native Hawaiian/Pacific Islander (a combination of two categories from the CIRP survey); Mexican American/Chicano, Puerto Rican, and Other Latino (combination of three CIRP categories); and Other. White/Caucasian served as the referent group. Because high school grade point average (HSGPA) was strongly skewed, dummy-coded variables were created for students who reported a "B" average (B- to B+) and a "C" average or less (C+ or lower); students with an "A" average (A- to A+) served as the referent group. The dependent variables and continuous independent variables were then standardized with a mean of zero and a standard deviation of one for inclusion in the analyses. As a result, unstandardized

coefficients for continuous independent variables can be interpreted as standardized coefficients (Cohen, Cohen, West, & Aiken, 2003).

Analyses

Pearson correlations were used to examine the relationships between initial levels of spiritual identification, religious commitment, and the three types of prosocial orientation. Fisher *r*-to-*z* transformations were conducted to examine whether the correlations between spiritual identification and prosocial orientation differed significantly from the correlations between religious commitment and prosocial orientation.

Hierarchical linear modeling (HLM) analyses were used to explore whether spirituality and religiosity are associated with changes in prosocial orientation, and vice-versa. The nesting of students within institutions violates a key assumption of ordinary least squares multiple regression; HLM accounts for this issue by partitioning the variance within and between groups and adjusting standard errors accordingly (Raudenbush & Bryk, 2002). HLM analyses predicting each of the six dependent variables were conducted. Continuous variables were grand-mean centered, and dichotomous variables were uncentered. All analyses included gender, age, race/ethnicity, parental education, high school GPA, and the pretest for the outcome variable as independent variables at the individual level (i.e., at level 1). Spiritual identification and religious commitment at Time 1 were highly correlated ($r = .79$), so models predicting the prosocial outcomes were performed separately using (1) spiritual identification as an independent variable, (2) the religiosity variables as independent variables (religious commitment and religious struggle), and (3) all three measures as independent variables. (Note that the correlations between religious struggle and the other two variables were low: $r = .20$ with spiritual identification, and $r = .06$ with religious commitment.) HLM models predicting each form of

religious and spiritual development were also examined. Because the three prosocial variables were moderately to strongly correlated with one another ($r = .24$ to $.47$), a separate model was analyzed for each prosocial measure predicting each spirituality/religiosity variable.

Previous research has indicated that the effects of some religious variables predicting spirituality, religiosity, and well-being outcomes differ between secular and religiously affiliated institutions (Bowman & Small, 2010, in press; Small & Bowman, 2011). Therefore, preliminary HLM analyses explored whether the slopes of the religiosity, spirituality, and prosocial orientation variables in this study might also vary by institutional type. However, these analyses revealed very few differences between religiously affiliated and secular campuses, so only the fixed-slope analyses are reported.

Intraclass correlation coefficients were calculated to indicate the proportion of variance in the dependent variables that occurred across institutions; these were 15% for religious commitment, 13% for spiritual identification, 11% for charitable involvement, 5% for ethic of caring, 4% for religious struggle, and 1% for compassionate self-concept. Although the values for the latter two variables were somewhat low for the use of HLM (Heck & Thomas, 2009), significant institutional-level differences exist for all outcomes ($ps < .0001$), and the structures of the data used violate the assumptions of multiple regression analyses. Moreover, the use of HLM for all models allows the results of various analyses to be compared with one another.

Limitations

Some limitations to this study should be noted. First, all of the measures are based on students' self-reports of their own attributes and behaviors. Although the use of student self-reports is very common in higher education research (Gonyea, 2005), the use of peer ratings or observations of behavioral outcomes would further bolster the validity of these reports.

Fortunately, the longitudinal administration of multi-item scales to measure changes in each religiosity, spirituality, and prosocial construct constitutes a substantial improvement over many such studies (for relevant reviews, see Hill & Pargament, 2003; Koenig, McCullough, & Larson, 2001; Mayrl & Oeur, 2009). Second, as noted earlier, the measures of religious commitment and spiritual identification are highly correlated with one another; as a result, it can be difficult to tease apart the unique effects of religiosity and spirituality. In an effort to alleviate this problem, analyses were conducted separately with spiritual identification, religiosity variables, and both spirituality and religiosity variables as predictors of prosocial development. Third, the sample size was quite large, which increases the likelihood of Type I error and/or identifying significant effects that are actually quite minor in practice. To minimize these potential problems, a conservative significance level ($p < .01$) was used for all analyses.

Results and Discussion

Upon entering college, both spiritual identification and religious commitment are positively correlated with all three prosocial orientation measures, $r = .25$ to $.42$ (see Table 1). This finding is consistent with previous research that indicates a positive association between religiosity, spirituality, and prosocial orientation (Saroglou et al., 2005). Furthermore, Fisher r -to- z transformations indicate that, for each of the prosocial measures, the correlation with spiritual identification is significantly higher than with religious commitment. That is, spiritual identification is more strongly related to prosocial orientation than is religious commitment. Of course, this correlational analysis cannot determine whether spirituality contributes to prosocial orientation, or vice-versa.

To identify possible direction(s) of influence, HLM analyses explored whether entering levels of spirituality and religiosity are associated with changes in prosocial orientation during

the first three years of college. As noted earlier, because religious commitment and spiritual identification are highly correlated, three separate HLM models predicting gains in each prosocial orientation measure were conducted. In Model 1, spiritual identification is positively associated with gains on all three prosocial outcomes (see Table 2). Model 2 examined only religious struggle and religious commitment as key predictors; this model suggested that religious commitment is associated with gains in charitable involvement and compassionate self-concept, but not ethic of caring. Religious struggle is not associated with changes on any of the prosocial outcomes. Model 3, which included all spiritual and religious variables, showed that spiritual identification is associated with gains in ethic of caring and compassionate self-concept, whereas religious commitment and religious struggle are not significantly related to growth on any prosocial indicator.

Because the effects of religious commitment on prosocial outcomes disappear when controlling for spiritual identification, students' spirituality seems to mediate the relationship between religiosity and increased prosocial orientation. That is, one's religion may promote prosocial attitudes and behaviors to the extent that it bolsters one's spirituality. Such a view is consistent with the conceptualization of spirituality as internalized beliefs, as opposed to an orientation to the institutional practices and obligations of religion (e.g., Hill & Pargament, 2003). For example, a person may believe strongly in God and the importance of attending church, but such beliefs may only lead to prosocial orientation insofar as they become internalized or integral to the understanding of self. Among many people, organized religion and individual spirituality are strongly linked, so religion is indeed related (though perhaps indirectly) to prosocial development.

Moreover, the current findings are consistent with previous research that suggests religion is associated with prosocial behavior primarily among one's ingroup (Saroglou et al., 2005). Of the three prosocial measures used, ethic of caring is the only scale that includes several items focused on a broad target group (e.g., people throughout the world). In contrast, charitable involvement does not specify to whom the behaviors are directed, and compassionate self-concept contains items that are framed as generalized traits. Thus, people who are prosocial mainly toward their ingroup—regardless of how the ingroup is defined—may be likely to report high levels of charitable involvement and compassionate self-concept, but not ethic of caring. These patterns are borne out in the results for religious commitment versus spiritual identification. Specifically, Table 1 shows that the association with prosocial orientation is stronger for spiritual identification than for religious commitment among all three prosocial indicators, and this pattern is much more pronounced for ethic of caring (i.e., the only indicator with a specific focus on a broad target group). Furthermore, as evinced in Model 2 of the HLM analyses, religious commitment is not related to gains in ethic of caring, but it is related to gains on the other two prosocial indicators (see Table 2). It should be noted that these results are preliminary and warrant further investigation with measures designed specifically to examine ingroup versus more universal targets.

Additional HLM analyses were conducted to examine factors that predict changes in religiosity and spirituality. To minimize potential multicollinearity issues, separate models were conducted with only one of the three prosocial measures upon college entry as an independent variable. As shown in the three columns on the left side of Table 3, religious commitment is positively associated with gains in spiritual identification. This pattern provides further evidence for the assertion that religion contributes to prosocial outcomes through promoting students'

spiritual development. In contrast, students' initial levels of spiritual identification are significantly associated with gains on religious commitment only in Model 2, but not in the other two models. The lack of a consistent effect of spiritual identification on gains in religious commitment should not come as a surprise, because students who are engaged or not engaged in organized religion can both flourish spiritually (e.g., Bowman & Small, 2010).

Although the results indicate that initial spirituality and religiosity lead to increased prosocial orientation, none of the prosocial indicators is significantly associated with growth in spiritual identification and religious commitment (see Table 3). As implied by the fairly modest correlations between prosocial orientation and religion/spirituality, students who engage in prosocial endeavors are not necessarily religious or spiritual. At many colleges and universities, volunteering and service opportunities are available largely through non-religious organizations, so prosocial behavior—not to mention prosocial attitudes, values, and self-perceptions—can be quite distinct from religious activities and groups. It is interesting to note, however, that in a study by Eyler and Giles (1999), 46% of those engaged in service learning reported “spiritual growth” as an important outcome, even though the service experiences and research measures were framed in secular terms.

In the final set of analyses, initial spiritual identification is positively related to increases in religious struggle over time in all three models. It is not obvious why this pattern occurs; it may be that the same forms of reflection associated with spiritual identification also cause students to consider (and sometimes question) their core religious beliefs, or the existence of spiritual identification early in college may indicate that students are primed to explore or react to religious externalities (for more about such struggles during college, see Bryant & Astin, 2008). In contrast, all three forms of initial prosocial orientation are associated with decreases in

religious struggle during college. A tentative explanation for this finding follows: If students conceptualize prosocial attitudes and behaviors as part of their religious/spiritual belief systems, later performance of prosocial acts may be construed as living out the tenets of their religion. These students may observe their own prosocial (and, in their mind, religious) actions and feel fulfilled. Because people's attitudes and beliefs are often formed by observing their own behaviors (e.g., Eagly & Chaiken, 1993), these engaged students may be less likely to question their existing religious views. Alternatively, direct engagement in prosocial actions during college may prompt religious awareness and interest.

Reflections and Implications

Our findings are consistent with other research indicating that spirituality and religious commitment predict prosocial orientation, yet in a complex manner. That spirituality is especially predictive of several forms of prosocial orientation is not surprising. Spirituality is often associated with unity and transcendence (Newberg & Newberg, 2008). Peak experiences, as described by Maslow, have been linked with spirituality and characterized by the breaking down of boundaries and prompting of universal concern (see Kunin & Miles-Watson, 2006). Such findings suggest that for many, spirituality is more than a self-focused or private matter.

As researchers committed to the prosocial missions of our universities, we find the outcomes described above—based on data from numerous colleges and thousands of students—to be welcomed news. Such empirical support provides important grounding for faculty and administrative efforts to attend to students' spiritual and religious views along with related understandings of prosocial responsibility. Promising practices toward this end (see Chickering et al., 2006; Colby, Ehrlich, Beaumont, & Stephens, 2003; Lindholm, Millora, Schwartz, & Spinosa, 2011) should be enhanced through developmentally grounded research (Brandenberger,

1998, 2005). Given that spirituality, not just religion, is associated with prosocial concern, faculty and staff at secular colleges and universities can introduce relevant opportunities for discussion and learning with less fear of indoctrination.

Our findings raise further research questions. How do students understand spirituality? The concept is fluid and can be highly personal and significantly influenced by culture (Katz, 1978; Newberg & Newberg, 2008). Thus, measures of spirituality need to be well-defined and consistent across studies. In the current study, for example, the term “spiritual” was used in the majority of the items that comprised the spiritual identification variable, yet students may not understand the term uniformly. A second potential research question involves how spiritual concerns may integrate with (or mediate) religious orientation to foster internalized views of social responsibility. A related question is developmental: During the college years, how are students predisposed cognitively and behaviorally to questions of faith and religion? Do the freedoms of college life and pressure to define oneself independently affect the relationships among variables such as spirituality, religiosity and prosocial orientation? Further, the current research suggests the importance of further exploration of spiritual and religious orientation toward within group or universal targets. Given the need for global collaboration highlighted by broad social and technological change, the importance of fostering respect and concern for those beyond one’s close relations is salient within and beyond higher education. Finally, given the shift in higher education toward questions of engagement and purpose, it is essential to examine what elements of the college experience—from undergraduate major to community engagement to the intellectual milieu of the college—may shape spirituality, religiosity, and prosocial outcomes.

To examine such questions, studies following cohorts into the adult years would present a

more complete and nuanced picture of development (see Dillon, Wink, & Fay, 2003; Wink, Ciciolla, Dillon, & Tracy, 2007). Our recent research suggests that prosocial purpose during college may be an especially salient predictor of engagement and well-being in young adulthood (Bowman et al., 2010; Hill et al., 2010). Such outcomes may further enhance adults' developmental trajectories, providing ongoing opportunities for spiritual and prosocial growth.

References

- Astin, A. W. (1993). *What matters in college: Four critical years revisited*. San Francisco: Jossey-Bass.
- Astin, A. W., Astin, H. S., & Lindholm, J. A. (2011a). Cultivating the spirit: How college can enhance students' inner lives. San Francisco: Jossey-Bass
- Astin, A. W., Astin, H. S., & Lindholm, J. A. (2011b). Assessing students' spiritual and religious qualities. *Journal of College Student Development*, 52, 39-61.
- Batson, C. D. (1983). Sociobiology and the role of religion in promoting prosocial behavior. *Journal of Personality and Social Psychology*, 45, 1380–1385.
- Berman, S. (1997). *Children's social consciousness and the development of social responsibility*. Albany: State University of New York Press.
- Bowman, N. A., Brandenberger, J. W., Lapsley, D. K., Hill, P. L., & Quaranto, J. C. (2010). Serving in college, flourishing in adulthood: Does community engagement during the college years predict adult well-being? *Applied Psychology: Health and Well-Being*, 2, 14-34.
- Bowman, N. A., & Small, J. L. (2010). Do college students who identify with a privileged religion experience greater spiritual development? Exploring individual and institutional dynamics. *Research in Higher Education*, 51, 595–614.
- Bowman, N. A., & Small, J. L. (in press). Exploring a hidden form of minority status: College students' religious affiliation and well-being. *Journal of College Student Development*.
- Brandenberger, J. W. (1998). Developmental psychology and service learning: A theoretical framework. In R. G. Bringle, & D. K. Duffy (Eds.), *With service in mind: Concepts and*

- models for service-learning* (pp. 68-84). Washington, DC: American Association for Higher Education.
- Brandenberger, J. W. (2005). College, character, and social responsibility: Moral learning through experience. In D. Lapsley & F. C. Power (Eds.). *Character psychology and character education*(pp. 305-334). Notre Dame, IN: University of Notre Dame Press.
- Bryant, A. N., & Astin, H. S. (2008). The correlates of spiritual struggle during the college years. *Journal of Higher Education, 79*, 1-27.
- Chickering, A. W., Dalton, J. C., & Stamm, L. (Eds.). (2006). *Encouraging authenticity and spirituality in higher education*. San Francisco: Jossey-Bass.
- Chickering, A. W. & Mentkowski, M. (2006) Assessing ineffable outcomes. In A. W. Chickering, J. C. Dalton, & L. Stamm (Eds.), *Encouraging authenticity and spirituality in higher education* (pp. 220-243). San Francisco: Jossey-Bass.
- Cohen, J., Cohen, P., West, S. G., & Aiken, L. S. (2003). *Applied multiple regression/correlation analysis for the behavioral sciences* (3rd ed.). Mahwah, NJ: Lawrence Erlbaum.
- Colby, A., Ehrlich, T., Beaumont, E., & Stephens, J. (2003). *Educating citizens: Preparing America's undergraduates for lives of moral and civic responsibility*. San Francisco: Jossey-Bass.
- Dalai Lama XIV. (1999). *Ethics for the new millennium*. New York: Penguin Putnam Inc.
- Dalton, J. (2006). Community service and spirituality: Integrating faith, service, and social justice at DePaul University. *Journal of College and Character, 8*(1), 1-9.

- Damon, W. & Bronk, K. C. (2007). Taking ultimate responsibility. In H. Gardner (Ed.), *Responsibility at work: How leading professionals act (or don't act) responsibly*(pp. 21-42). San Francisco: Jossey-Bass.
- Dillon, M., Wink, P., & Fay, K. (2003). Is spirituality detrimental to generativity? *Journal of the Scientific Study of Religion, 42*, 427-442.
- Eagly, A. H., & Chaiken, S. (1993). *The psychology of attitudes*. Fort Worth, TX: Harcourt.
- Eisenberg, N., Carlo, G., Murphy, B., & Van Court, P. (1995). Prosocial development in late adolescence: A longitudinal study. *Child Development, 66*, 1179-1197.
- Eisenberg, N., Cumberland, A., Guthrie, I. K., Murphy, B. C., & Shepard, S. A. (2005). Age changes in prosocial responding and moral reasoning in adolescence and early adulthood. *Journal of Research on Adolescence, 15*, 235-260.
- Eyler, J., & D. E. Giles. (1999). *Where's the learning in service-learning?* San Francisco: Jossey-Bass.
- Fowler, J. (1995). *The stages of faith: The psychology of human development and the quest for meaning*. New York: HarperCollins (Original edition published in 1981).
- Galarza, C. (2006, March 17). More students choosing faith-based college life. *Orlando Business Journal*. Retrieved November 30, 2009, from <http://orlando.bizjournals.com/orlando/stories/2006/03/20/story8.html>
- Gonyea, R. M. (2005). Self-reported data in institutional research: Review and recommendations. In P.D. Umbach (Ed.), *Survey research: Emerging issues*(New Directions for Institutional Research, no. 127, pp. 73-89). San Francisco: Jossey-Bass.

- Heck, R. H., & Thomas, S. L. (2009). *An introduction to multilevel modeling techniques* (2nd ed.). New York: Routledge.
- Higher Education Research Institute. (2004). *The spiritual life of college students: A national study of college students' search for meaning and purpose (Full report)*. Los Angeles: Author. Retrieved November 22, 2009, from <http://www.spirituality.ucla.edu/results/index.html>.
- Hill, P. L., Burrow, A. L., Brandenberger, J. W., Lapsley, D. K., & Quaranto, J. C. (2010). Collegiate purpose orientations and well-being in emerging and middle adulthood. *Journal of Applied Developmental Psychology, 31*, 193-179.
- Hill, P. C., & Pargament, K. I. (2003). Advances in the conceptualization and measurement of religion and spirituality: Implications for physical and mental health research. *American Psychologist, 58*, 64-74.
- Hunter, J. D. (2000). *The death of character: Moral education in an age without good or evil*. New York: Basic Books.
- Katz, S. (1978). Language, epistemology, and mysticism. In S. Katz (Ed.), *Mysticism and philosophical analysis* (pp. 22-74). New York: Oxford University Press.
- King, P. M., & Mayhew, M. J. (2002). Moral judgment development in higher education: Insights from the Defining Issues Test. *Journal of Moral Education, 31*, 247-270.
- King, P.M., & Mayhew, M. J. (2004). Theory and research on the development of moral reasoning among college students. *Higher education: Handbook of theory and research, 19*, 375-440.

- Koenig, H.G., McCullough, M., & Larson, D.B. (2001). *Handbook of religion and health*. New York: Oxford University Press.
- Kohn, A. (1990). *The brighter side of human nature: Altruism and empathy in everyday life*. New York: Basic Books.
- Kronman, A. T. (2007). *Education's end: Why our colleges and universities have given up on the meaning of life*. New Haven, CT: Yale University Press.
- Kuh, G. D., & Gonyea, R. M. (2006, Winter). Spirituality, liberal learning, and college student engagement. *Liberal Education*, 40-47.
- Kunin, S. D. & Miles-Watson, J. (Eds.). (2006). *Theories of religion: A reader*. New Brunswick, NJ: Rutgers University Press.
- Lewis, H. R. (2006). *Excellence without a soul: How a great university forgot education*. New York: PublicAffairs of Perseus Books.
- Lindholm, J. A. (2007). Spirituality and the academy: Reintegrating our lives and the lives of our students. *About Campus* 12(4), 10-17.
- Lindholm, J. A., Millora, M. L., Schwartz, L. M., & Spinoza, H. S. (2011). *A guidebook of promising practices: Facilitating college students' spiritual development*. Berkeley, CA: University of California.
- Love, P. G., & Talbot, D. (1999). Defining spiritual development: A missing consideration for student affairs. *NASPA Journal*, 37(1), 361-375.
- Mayrl, D., & Oeur, F. (2009). Religion and higher education: Current knowledge and directions for future research. *Journal for the Scientific Study of Religion*, 48, 260-275.

- Newberg, A. B., & Newberg, S. K. (2008). Hardwired for God: A neuropsychological model for developmental spirituality. In K. K. Kline (Ed.), *Authoritative communities: The scientific case for nurturing the whole child* (pp. 165-186). New York: Springer.
- Oliner, S. P., & Oliner, P. M. (1988). *The altruistic personality: Rescuers of Jews in Nazi Europe*. New York: The Free Press.
- Parks, S. (1986). *The critical years: The young adult search for a faith to live by*. San Francisco: Harper & Row.
- Parks, S. (2000). *Big questions, worthy dreams: Mentoring young adults in their search for meaning, purpose, and faith*. San Francisco: Jossey-Bass.
- Pascarella, E. T., & Terenzini, P. T. (2005). *How college affects students: A third decade of research* (Vol. 2). San Francisco: Jossey-Bass.
- Penner, L. A., Dovidio, J. F., Piliavin, J. A., & Schroeder, D. A. (2005). Prosocial behavior: Multilevel perspectives. *Annual Review of Psychology*, 56, 365-392.
- Pichon, I., & Saroglou, V. (2009). Religion and helping: Impact of target, thinking styles, and just-world beliefs. *Archive for the Psychology of Religion*, 31, 215-236.
- Raudenbush, S. W., & Bryk, A. S. (2002). *Hierarchical linear models: Applications and data analysis methods* (2nd ed.). Thousand Oaks, CA: Sage.
- Regnerus, M. D., & Uecker, J. E. (2007). *How corrosive is college to religious faith and practice?* New York: Social Science Research Council. Retrieved November 29, 2009, from http://religion.ssrc.org/reforum/Regnerus_Uecker.pdf
- 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., Pichon, I., Trompette, L., Verschueren, M., & Dernelle, R. (2005). Prosocial behavior and religion: New evidence based on projective measure and peer ratings. *Journal for the Scientific Study of Religion*, *44*, 323-348. doi: 10.1111/j.1468-5906-2005-00289x
- Small, J. L., & Bowman, N. A. (2011). Religious commitment, skepticism, and struggle among college students: The impact of majority/minority religious affiliation and institutional type. *Journal for the Scientific Study of Religion*, *50*, 154-174.
- Smith, C., Faris, R., Lundquist Denton, M., & Regnerus, M. (2003). Mapping American adolescent subjective religiosity and attitudes of alienation toward religion: A research report. *Sociology of Religion*, *64*, 111-133.
- Smith, C., with Snell, P. (2009). *Souls in transition: The religious and spiritual lives of emerging adults*. New York: Oxford University Press.
- Speck, B. W., & Hoppe, S. L. (Eds.). (2004). *Service learning: History, theory, and issues*. Westport, CT: Praeger Publishers.
- Speck, B. W., & Hoppe, S. L. (Eds.). (2007). *Searching for spirituality in higher education*. New York: Peter Lang Publishing.
- Stamm, L. (2006). The influence of religion and spirituality in shaping American higher education. In A. W. Chickering, J. C. Dalton, & L. Stamm (Eds.), *Encouraging authenticity and spirituality in higher education* (pp. 66-91). San Francisco: Jossey-Bass.
- Sullivan, W. M. (2000). Institutional identity and social responsibility in higher education. In T. Ehrlich (Ed.), *Civic responsibility and higher education* (pp.19-36). Phoenix, AZ: The Oryx Press.

Uecker, J. E., Regnerus, M., and Vaaler, M. L. (2007). Losing my religion: The social forces of religious decline in early adulthood. *Social Forces*, 85, 1667-1692.

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.

Table 1. Correlations among students' entering (start of college) levels of spiritual identification, religious commitment, and prosocial orientation.

Prosocial measure	Spiritual identification	Religious commitment	Z-value of difference
Ethic of caring	.415**	.275**	12.83**
Charitable involvement	.331**	.272**	5.15**
Compassionate self-concept	.287**	.249**	3.29*

* $p < .01$ ** $p < .001$