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Examining the Role of the Catholic Environment in Students' Search for Meaning

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Emerging research illustrates that undergraduate students are searching for meaning in their lives, yet postsecondary institutions generally do little to support them in exploring such issues (Astin et al., 2005b). We speculated that religiously affiliated institutions might offer guidance on supporting students' spiritual development, and thus examined students in the context of Catholic postsecondary environments, focusing on whether the students' religious affiliations and perceptions of their institution as supporting their spiritual development affected their search for meaning. Further, we examined the aspects of the environment that strengthened students' perceptions of their college environment as closely aligned with the Catholic mission, and thus supportive of their spiritual development. We discuss implications for secular and religious institutions.

Attending to students' developmental needs has been an integral part of student affairs since the inception of the field (Knefelkamp, Widick, & Parker, 1978). In their recent book on the spiritual growth of college students, Astin, Astin, and Lindholm (2011) argued that "spirituality is fundamental to students' lives" (p. 1) and that some of the most important and enduring questions that college students face as they identify the direction of their lives, determine what kind of person they want to become, and seek meaning and purpose, are spiritual questions at their core.

In recent years, researchers have encouraged student affairs educators to be open to new understandings of student development (Torres, Jones, & Renn, 2009), however spiritual development research remains underdeveloped (Astin et al., 2011). Although emerging research illustrates that undergraduate students are searching for meaning in their lives, less attention has been paid to understanding how postsecondary institutions support these students in exploring such issues (Astin, 2005b). Because spiritual questions play a foundational role in other dimensions of development (identity, career, and moral, among others; Astin et al., 2011), more research attention is needed to understand how postsecondary institutions can support students' spiritual development.

In this article, we use the terms spiritual and spirituality much like Parks (2000) defines them, as a search for meaning, wholeness, and "the apprehension of spirit (or Spirit) as the animating essence at the core of life" (p. 16). Consistent with Parks's definition, we use spiritual development interchangeably with the term "search for meaning."

College students report high levels of spiritual interest during their college years, with nearly three-fourths indicating they are searching for purpose in their lives and having discussions with friends about the meaning of life (Astin et al., 2005b). Despite this

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interest, these students report that colleges and universities in general do little to assist them in exploring such issues (Astin et al., 2005b). Although numerous centers, programs, and resources are often available to students as they clarify and examine many dimensions of identity (such as gender, sexual orientation, disability, or race and ethnicity), formal institutional support for exploring spirituality is rarer. This inattention is problematic because it fails to address an essential aspect of students' lives at the very time when it is critically important to do so (Parks, 2000), as many students find college a time to question the beliefs with which they were raised in an effort to construct their own beliefs (Astin et al., 2005a; Parks, 2000).

With this paradox of need and oversight in mind, key questions emerge regarding the role that collegiate environments play in supporting students' search for meaning. One sector of higher education where one would expect there to be attention given to this spiritual dimension is at mission-centered, faith-based institutions. Catholic postsecondary institutions in particular emphasize spiritual and intellectual development (Thon, 2013), and are thus an appropriate place to explore environmental influences on students' search for meaning. However, while many of these institutions have sought to maintain religious traditions while also deepening their intellectual tradition (Buckley, 1998), there is substantial variation in the presence of religious traditions in Catholic postsecondary environments and the extent to which these institutions promote spiritual development. A visit to the homepages of Georgetown University and Ave Maria University, for example, illustrates differences in the centrality of Catholic tradition—demonstrated through mission statement, language, and pictures—suggesting that each might support students' spiritual development differently.

Coupled with differences in the missions of Catholic institutions is the reality that their administrative and student demographics have shifted. Whereas historically the Catholic identity and mission of Catholic colleges and universities were the responsibility of nuns or priests, today the task is increasingly the responsibility of lay faculty or administrators (Gallin, 2000; Hendershott, 2009), of whom only 50% consider themselves highly spiritual (Astin et al., 2005b). In addition, fewer students at Catholic colleges and universities are Catholic, with only about 60% of first-year students at Catholic colleges and universities identifying as such (Astin et al., 2005b).

The aforementioned realities of varying religious traditions and changing demographics illustrate the complexity of examining the role of the Catholic collegiate environment in supporting students' search for meaning and demonstrate the need to examine closely whether Catholic institutions are in fact a place where students develop spiritually. Moreover, given the variation in Catholic institutional contexts, it is instructive to determine whether engagement in certain activities strengthens students' perception of their environment as mission-driven and supportive of their spiritual development. The specific research questions that guided our analysis were:

1. How do students' religious affiliations relate to their search for meaning at Catholic postsecondary institutions?
2. Does the Catholic environment, including the extent to which it promotes outcomes unique to Catholic mission, predict students' search for meaning?
3. If the Catholic environment affects students' search for meaning, what curricular and co-curricular activities predict students' perception of the environment as promoting outcomes unique to Catholic mission?

These insights will help administrators and faculty at religious and secular institutions alike better understand how to foster and support the search for meaning that students crave (Astin et al., 2005a) and add nuance to the research on spiritual development.

RELEVANT LITERATURE

We drew from spiritual development research related to student outcomes and the role of institutional type to understand the sources that affect students' search for meaning in a Catholic context.

Students

Research on the spiritual development of college students has increased markedly since the Higher Education Research Institute (HERI) launched its research program on the subject in 2002 (Astin, Astin, & Lindholm, 2011; Astin et al., 2005a). Early research revealed that 80% of students expressed an interest in spirituality and believed "in the sacredness of life" (Astin et al., 2005a). Furthermore, like other aspects of identity, students struggle with their spirituality during the college years (Bryant & Astin, 2008; Bryant Rockenbach, Walker, & Luzader, 2012). Bryant, Choi, and Yasuno (2003) examined spiritual development using data from 3,680 students who completed both the Cooperative Institutional Research Program Freshman Survey and the Your First College Year Survey. The researchers found that after their first year in college, students were less inclined to rate themselves as spiritual but were more committed to integrating spirituality into their lives. The decline in students' willingness to rate themselves as spiritual in contrast to the rise in their spiritual integration may be due to their struggles to define their spirituality (Bryant & Astin, 2008). This inconsistency is also found in

other aspects of identity formation (Baxter Magolda, 2001; Marcia, 1966), especially when students are differentiating themselves and their beliefs from those of their parents and others who have influenced their lives (Astin et al., 2005a; Parks, 2000). These findings illustrate that students' college years are fraught with uncertainty regarding their spiritual development and speak to the need to understand more about how institutions can support their search for meaning.

Experiences

In attempting to tease out the experiences that aid in students' spiritual development, Bowman and Small (2010) used a longitudinal sample of 14,527 students from 136 institutions collected by HERI to conduct a quantitative study examining the spiritual development of students with differing religious backgrounds. The authors also examined the experiences and features of the environment that were associated with their development. The authors operationalized spiritual development using two constructs from the HERI study, namely *spiritual identification*, which measured students' conception of themselves as spiritual and engagement in spiritual experiences, and *spiritual quest*, which measured students' engagement with a spiritual journey, which was a construct most closely aligned with our study's focus on search for meaning. The authors found that religious participation while in college and faculty support for spiritual and religious development were positively associated with students' spiritual identity and quest. They also discovered that students who interacted with others who shared similar religious beliefs experienced a positive gain in their spiritual quest, which the authors suspected might be a result of peers' encouragement to know oneself and engage in one's spiritual journey more fully.

Bryant (2011) also used HERI data

to examine the role of context in students' spiritual development. Bryant examined ecumenical worldview development, which she defined as an awareness of and openness to others' worldviews and an understanding of human interconnectedness. Although the construct is different from our interest in students' search for meaning, Bryant's findings regarding the role of the institutional context in helping students' develop an ecumenical worldview highlight the environmental aspects that may support students' spiritual development. Bryant found that academic and cocurricular experiences that connected students with religion, spirituality, and diversity informed their ecumenical worldview. Furthermore, these encounters often provoked spiritual struggles, which enhanced students' worldview. These findings illustrate the potential effect of students' experiences on their spiritual development. More research is needed to determine if there are other aspects of the context that support their spiritual development.

Institutional Type

Concurrent to the rise in research about students' spiritual development are studies examining the effect of the collegiate environment on religious and spiritual development. Kuh and Gonyea (2006) used data from the 2004 National Study for Student Engagement to build regression models examining students' spirituality-enhancing activities. They found that students who attend faith-based colleges engaged more often in spiritual practices than those at secular institutions, and that mission and culture more strongly predict spiritual enhancement than other institutional factors such as size and selectivity. Honing in on differences in institutional context, Small and Bowman (2011) used HERI data (described above) to examine the role of institutional type and religious affiliation on

students' religious commitment, skepticism, and struggle. Although their second study was more narrowly focused on religion than spirituality, the finding that students' religious commitment was greatest at non-Catholic, religious institutions and least at secular institutions, with Catholic institutions falling in the middle lends support to our belief that examining spiritual development in a Catholic context is appropriate, and may have implications for both faith-based and secular institutions. Also notable about the study is that it used the institutional classification to account for differences in institutional type, treating students' experiences in these environments as a monolithic experience. More nuanced examination is needed to understand how students' perceptions of their context, or their lived experience, embodies the spiritual support they seek.

Catholic Context

Since its inception with the founding of Georgetown University in 1789, Catholic postsecondary education in the United States has endeavored to provide students a space to learn in an environment rich with Catholic ideals and attitudes. Although these institutions share a common heritage, they were founded by different religious orders or dioceses, and thus, have unique ways of articulating and exemplifying their beliefs (Thon, 2013) and promoting spiritual development. Adding to the diversity of the Catholic postsecondary context is the reality that these institutions differ in many ways, including demographics, size, locale, and research intensity.

Over the past few decades, the Catholic Church has wrestled with the role of Catholic higher education in attending to and promoting mission and identity. In 1990, Pope John Paul II issued *Ex Corde Ecclesiae*, which sought to clarify the characteristics that should exist in a Catholic university, including:

1. individuals and a community inspired by the Christian tradition;
2. reflection on the relationship between the Catholic faith and knowledge;
3. fidelity to the Church's Christian message; and
4. an institutional commitment to serving others.

In the years since *Ex Corde Ecclesiae*, these characteristics have been interpreted by the sponsoring religious orders and dioceses of Catholic colleges and universities as well as Catholic postsecondary associations such as the Association of Catholic Colleges and Universities (ACCU), Association of Student Affairs at Catholic Colleges and Universities (ASACCU) and the Jesuit Association of Student Personnel Administrators (JASPA). These associations underscored the need for Catholic institutions to promote Catholic religious values, which include the integration of faith and reason, fidelity to tradition, vocational discernment, and commitment to service, justice, and compassion grounded in Catholic social teaching (Estanek & James, 2010).

In 2007, ACCU, ASACCU, and JASPA distributed a document outlining principles of good practice for student affairs at Catholic colleges and universities (Estanek & James, 2007). The principles included in the document emerged from discussions about the meaning of *Ex Corde Ecclesiae* for work in student affairs and emphasize that student affairs educators be attentive to institutional mission. Several of the principles explicitly reference support for students' spiritual development, including: enriching student integration of faith and reason through the provision of cocurricular opportunities; creating opportunities for students to experience, reflect upon, and act from a commitment to justice, mercy, and compassion; inviting and accompanying students into the life of the Catholic Church,

seeking dialogue among religious traditions and with contemporary culture to clarify beliefs and to foster mutual understanding, and assisting students in discerning and responding to their vocations (Estanek & James, 2007). Because Catholic institutions have a long history of supporting students' spiritual development, they are an informative context for developing a more nuanced understanding of the role of the environment in supporting students' search for meaning.

In summary, current literature informs our study by demonstrating the spiritual dimension of student development as a worthy consideration, especially in the college years (Astin et al., 2011, 2005a; Bryant & Astin, 2008; Bryant et al., 2003; Bryant Rockenbach et al., 2012). In addition, it illustrates that students' religious participation and interaction with others' with shared beliefs (Bowman & Small, 2010), and their cocurricular and curricular experiences (Bryant, 2011) all help to promote their spiritual development. Finally, the literature lends credence to our contention that institutional context matters (Kuh & Gonyea, 2006; Small & Bowman, 2011) and that a Catholic institutional context may provide clues as to how postsecondary institutions might support students' search for meaning.

CONCEPTUAL FRAMEWORK

We used an ecological framework to examine how demographic and environmental factors related to students' search for meaning at Catholic postsecondary institutions and the curricular and cocurricular activities that predicted students' perception of the environment as promoting outcomes aligned with the Catholic mission. In the past decade, researchers have encouraged the use of ecological models to gain a more complex understanding of student development (Pascarella

& Terenzini, 2005; Renn, 2003; Renn & Arnold, 2003; Strange & Banning, 2001). These models situate the study of development and other outcomes in the social contexts in which they occur so as to account for multiple sources of influence. Moos and Insel (1976) and Barker (1968) implored researchers to consider the behavior setting, or the social and physical situations in which behavior occurs when striving to evaluate outcomes. We used Astin's (2002) Inputs-Environment-Outputs model to frame the study. We examined the relationships between the input characteristics (e.g., student demographics including religious affiliation and gender, self-reported precollege disposition toward spirituality), the Catholic environment of the institutions (e.g., helping students develop a commitment to social justice, use gifts and talents to serve others, incorporate religious beliefs into leadership practices) and students' search for meaning, the outcome. Then, to gain a better understanding of the social-environmental factors (Moos, 1976) affecting students' perceptions of the behavior setting, we focused our attention on the Catholic environment, examining the curricular and cocurricular experiences that affected students' perception of a mission-centered Catholic environment.

STUDY DESIGN

We adopted a quantitative, cross-sectional survey design. Data was drawn from the 2009 Multi-Institutional Study of Leadership (MSL; Dugan, 2009), a study examining the influence of postsecondary education on students' leadership development.

Population, Sample, and Participants

There are 251 degree-granting Catholic postsecondary institutions in the United States (Association of American Colleges and Universities, n.d.a). Our analytic sample

included a random sample of 12,714 students from 12 of these institutions who completed the 2009 survey and attended schools that were part of the Catholic Consortium, a group of Catholic institutions that agreed to share data. Of these 12,714, usable data for our analyses was available for 6,210 students on a search for meaning scale and 5,473 for mentoring scales because the MSL survey administrators used a random split sampling technique, only asking some questions to half the sample at each institution in order to reduce survey length. Because the data were missing completely at random (MCAR), we used pair-wise deletion techniques to account for the missing data. The response rate for the Catholic sample was 30.1%. In terms of race and ethnicity, a two-sample *t*-test between proportions revealed no statistically significant difference in the percentage of Hispanic or Latino and American Indian or Alaskan Native students in the Catholic Consortium sample and the national enrollment data for the population attending private, nonprofit, religiously affiliated 4-year institutions in the US (National Center for Educational Statistics [NCES], 2008). However, African American students are underrepresented by about 7%, White students are overrepresented by 3.5%, Asian students are overrepresented by 7.4%, and multiracial students are overrepresented by 2% in comparison to national population of students attending private, religiously affiliated nonprofit 4-year institutions (NCES, 2008). About 1% of students did not indicate their race or ethnicity. In addition, women are overrepresented in the sample by about 3% (Association of Catholic Colleges & Universities, n.d.b). The sample was comprised of 24% first-year, 22% sophomore, 24% junior, and 28% senior students. We provide complete descriptive information about the sample in Table 1.

TABLE 1.
Descriptive Information of Analytic Sample

Variable Name	<i>M</i>	<i>SD</i>	Min.	Max	<i>n</i>
<i>Sociodemographic Variables</i>					
African American	.04	.21	0	1	12,366
Asian American	.11	.31	0	1	12,366
Hispanic/Latino	.10	.30	0	1	12,366
Middle Eastern	.02	.15	0	1	12,366
Native Am. or Alaskan Native	.01	.12	0	1	12,366
<i>White (Reference Group)</i>	.76	.43	0	1	12,366
Multiracial	.04	.19	0	1	12,366
No Response for Race	.01	.11	0	1	12,366
Male	.34	.47	0	1	12,382
<i>Religious Affiliation</i>					
Catholic (Reference Group)	.52	.50	0	1	12,386
Other Christian Religion	.20	.40	0	1	12,386
Other World Religion	.07	.25	0	1	12,386
I Do Not Have a Religious Affiliation	.22	.41	0	1	12,386
Prefer Not to Respond	.01	.04	0	1	12,386
Precollege Spiritual Disposition ^a	7.77	2.33	3	12	6,355
<i>College Experiences</i>					
First-Year (Reference Group)	.25	.43	0	1	12,526
Sophomore	.22	.42	0	1	12,526
Junior	.25	.43	0	1	12,526
Senior	.28	.45	0	1	12,526
Community Service Participation	3.60	.430	0	30	12,714
Mission Student Organization	.37	.48	0	1	12,700
Learning Community	.26	.44	0	1	12,692
Study Abroad	.16	.37	0	1	12,695
Short-Term Service Immersion Trip	.09	.29	0	1	12,714
First-Year Seminar	.52	.50	0	1	12,705
Culminating Senior Experience	.16	.36	0	1	12,692
Leadership Training or Education	.19	.39	0	1	12,714
Mentorship – Personal ^a	28.91	4.21	7	35	5,473
Mentorship – Leadership ^a	11.33	2.53	3	15	5,473
Catholic Environment	40.44	10.44	15	60	11,652
<i>Outcome Variable</i>					
Search for Meaning ^a	13.26	3.99	5	20	6,210

^a Part of substudy, randomly administered to 50% of the student sample at each institution.

Data Collection Instruments, Variables, and Materials

The MSL questionnaire was developed to examine student leadership development. Adapted from the Socially Responsible Leadership Scale, (Tyree, 1998), the survey examined students' demographic and precollege characteristics, collegiate experiences, and leadership-related outcomes (Dugan, 2009). Included in the instrument were a spirituality scale and precollege spiritual disposition scale, intended to measure students' search for meaning at different points in time. The precollege spiritual disposition scale asked students to reflect on their perceptions prior to starting college. Also included in the survey instrument administered to students in the Catholic Consortium was a set of common custom questions intended to explore mission and identity outcomes of a Catholic education.

Variables

Sociodemographic and Precollege Characteristics. Variables included students' sex, class year, and religious affiliation (we did not include information about students' race or ethnicity because we had no theoretical basis for doing so). In addition, we used a scale developed to measure students' precollege disposition toward spirituality. Although not a true longitudinal measure because we were asking students to reflect on their precollege days, we hoped that the inclusion of the precollege scale would help us tease out the effect of the environment. Questions in the scale included the extent to which students engaged in the following before college: reflection on the meaning of life, consideration of their sense of purpose, and reflection on meaning in times of hardship. We performed principle components and reliability analyses on the scale to ensure its construct validity. These analyses revealed the presence of one factor

(eigenvalue > 1), explaining 73.76% of the variance, factor loadings ranging from .900 to .781, and reliability of $\alpha = .82$.

Catholic Environment. The Catholic environment scale was developed by a team of administrators and faculty at Catholic institutions who sought to measure the environment pertinent to Catholic colleges and universities. The questions were loosely drawn from the *Principles of Good Practice for Student Affairs at Catholic Colleges and Universities* (Estanek & James, 2007) and addressed the extent to which students engaged in experiences congruent with the mission of a Catholic college or university, including developing a commitment to social justice, incorporating religious beliefs into leadership practices, and using skills to create positive change.

We performed principle components and reliability analyses on the scale to ensure its construct validity. The principle components analysis revealed two factors with eigenvalues greater than 1 (eigenvalues of 9.25 and 1.08 respectively); however, after examining the scree plot and component matrix, it was clear that the factor loadings on the first component were superior as all variables loaded above .6 on the first factor and no variable loaded above .4 on the second factor. As a result, only the first factor was retained. The dominant factor explained 61.65% of the variance, had factor loadings ranging from .841 to .690, and a reliability of $\alpha = .96$. Items and factor loadings are included in Table 2.

Collegiate Experiences. We measured several experiences noted in the literature as high impact practices (Kuh, 2008) because of the weight of the research suggesting that these experiences increase rates of student engagement (Kuh, 2008). We hypothesized that the practices would heighten engagement with the institution, which might connect students more closely with the Catholic

TABLE 2.
Scale for Catholic Environment (Reliability $\alpha = .954$)

Students' Perceptions of the Collegiate Environment	Factor Loading
<i>As a result of your experiences at [institution name], to what extent have you been able to do the following?</i>	
1. Integrate knowledge and beliefs to draw meaning from my experiences.	.841
2. Engage others in a common vision for the future.	.833
3. Use my skills to create positive change.	.829
4. Use my gifts and talents to serve others.	.820
5. Understand the role I can play in addressing injustice.	.820
6. Support human dignity and diversity.	.804
7. Develop an understanding of what community means to me.	.796
8. Develop my commitment to social justice.	.789
9. Use reflection as a tool for learning and personal growth.	.784
10. Develop a sense of purpose in my life.	.781
11. Construct a set of personal values.	.774
12. Integrate community service into my life.	.762
13. Engage in personal reflection.	.741
14. Find a spiritual community in which I feel comfortable.	.692
15. Incorporate my religious beliefs into my leadership practices.	.690

mission and ideals. These experiences included involvement in a learning community, study abroad, first-year seminar, and capstone seminar. Guided by Bryant's (2011) research connecting cocurricular experiences to spiritual dimensions of development, we also measured experiences we believed might promote outcomes specifically associated with the Catholic environment, including students' involvement in community service, leadership experiences, involvement in student organizations related to Catholic mission (advocacy, service or religious involvement), and their experiences with mentors (both personal and leadership).

Search for Meaning. The search for meaning scale was part of the MSL survey instrument and included 5 questions (set on a 5-point Likert-type scale) that inquired about the frequency with which students searched for meaning in their lives, reflected on meaning,

and thought about developing a meaningful personal philosophy. We performed principle components and reliability analyses on the scale to ensure its construct validity. These analyses revealed one factor (eigenvalue > 1), explaining 74.33% of the variance, factor loadings ranging from .899 to .835, and a reliability of $\alpha = .91$. Items and factor loadings are included in Table 3.

Limitations

There are several important limitations. First, our study utilized nested data—the 12,714 students who completed the survey were from 12 postsecondary institutions. However, because we did not have individual institutional markers per the agreement with the Catholic Consortium, we could not employ procedures to statistically adjust smaller standard errors for the nesting effect in our data (by using hierarchical linear modeling, for example,

which would have enabled us to account for the varying levels of data (Kreft & De Leeuw, 1998; Raudenbush & Bryk, 2002). Instead, we took steps to minimize the potentially smaller variance that could result from the nested nature of the data, using a more stringent alpha level ($p < .01$ rather than $p < .05$) for statistical significance to reduce the probability of making a Type I Error—rejecting a true null hypothesis (Raudenbush & Bryk, 2002).

Second, several researchers raised questions about the validity of self-report data (Anaya, 1999; Gonyea, 2005). We reviewed the MSL survey and noted that survey administrators followed guidelines to increase the validity by asking questions that merited a serious response, phrasing questions clearly, and ensuring questions did not embarrass the respondents (Bradburn & Sudman, 1988; Converse & Presser, 1989, Gonyea, 2005). However, we acknowledge that in asking students to recall their precollege disposition toward spirituality, some students may have difficulty, raising some concern about validity (Porter, 2011). Finally, because 76% of the sample is White and we did not control for the overall effect of race on the outcome, the findings that emerged from our analysis might be more indicative of White students' experiences. Analysis and Results

We began our analysis by examining the descriptive statistics of the survey data,

checking for missing data, assessing normality and multicollinearity, examining outliers, and conducting bivariate correlations of the variables. We used hierarchical multiple regression to explore research questions one and two, the effect of the following on students' search for meaning:

1. religious affiliation, and
2. their engagement in the Catholic environment.

First, we entered students' demographics, including gender and religious affiliation. To control for students' search for meaning prior to their arrival at the university, we entered the precollege spiritual disposition variable. Finally, we entered the Catholic environment scale and students' class year in the third block (see Table 4 for numerical results of each model) because these variables address students' time in college.

Our first model, which included the demographic questions, explained 1% of the variation in students' search for meaning, $F(5, 5826) = 6.32, p < .001$. Two demographic variables, other world religion ($\beta = .06$) and no religion ($\beta = .05$) were statistically significant, indicating that these students, in comparison to their Catholic peers, were slightly more likely to be searching for meaning. The addition of the precollege spiritual disposition variable resulted in a significant change in the

TABLE 3.
Scale for Search for Meaning (Reliability $\alpha = .913$)

Students' Self-Reports of Their Search for Meaning	Factor Loading
<i>How often do you . . . ?</i>	
1. Reflect on finding answers to the mysteries of life.	.899
2. Think about developing a meaningful philosophy of life.	.870
3. Have discussions about the meaning of life with your friends.	.863
4. Surround yourself with friends who are searching for meaning/purpose in life.	.842
5. Search for meaning/purpose in your life.	.835

TABLE 4.
Demographics and Catholic Environment

Variable	Block 1				Block 2				Block 3			
	B	SE	β	Sig.	B	SE	β	Sig.	B	SE	β	Sig.
(Constant)	12.98	.10			5.78	.17			1.47	.21		
<i>Religious Affiliation (Ref. Group Catholic)</i>												
Christian (Non-Catholic)	.34	.14	.03		.04	.12	.00		.32	.11	.03 *	
Other World Religion	.99	.21	.06 **		.45	.18	.03 *		.80	.16	.05 **	
Religion Not Disclosed	-.86	1.2	-.01		-.95	1.01	-.01		-.27	.93	.00	
No Religion	.48	.13	.05 **		.23	.11	.02		.76	.10	.08 **	
Female	.07	.11	.01		.03	.09	.00		-.15	.09	-.02	
Spirituality Pretest					.95	.02	.55 **		.78	.02	.46 **	
<i>Class Year (Ref. Group First-Year)</i>												
Sophomore									.37	.12	.04 *	
Junior									.56	.12	.06 **	
Senior									.62	.11	.07 **	
Catholic Environment									.13	.00	.33 **	
R^2			.01				.31				.42	
$R^2\Delta$.30 **				.11 **	

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

model, with the R -square change ($R^2\Delta$) = .30, $F(1, 5825) = 2560.05$, $p < .001$. Only other world religion ($\beta = .03$) remained significant from the previous model, and the spirituality pretest was also significant ($\beta = .55$).

The addition of the Catholic environment scale and students' academic year in the final block resulted in a significant change, with the $R^2\Delta = .11$, $F(4, 5821) = 263.90$, $p < .001$. Other world religion remained significant, as did the precollege spiritual disposition ($\beta = .46$). Christian (non-Catholic) ($\beta = .03$) and no religion ($\beta = .08$) became significant. The Catholic environment ($\beta = .33$) and each class year ($\beta = .04$; $\beta = .06$; $\beta = .07$) were also significant. The final model accounted for 41% of the variation in students' search for meaning, $F(10, 5821) = 413.2$, $p < .001$.

Because the Catholic environment scale strongly predicted students' search for mean-

ing, we deemed it important to practitioners to learn more about what affected students' perceptions of the environment as consistent with Catholic mission. Thus, our third research question honed in on the curricular and cocurricular experiences that predicted students' perceptions of the environment as promoting outcomes unique to Catholic mission. Because our unit of analysis was students' experience, and there was no theoretical basis indicating that demographic characteristics affected their perception of the environment as Catholic, we opted not to control for demographics. We regressed the Catholic environment outcome on the following experiences: mentor engagement (both personal and leadership), community service participation, mission-related student organization involvement, leadership training, learning community

involvement, short-term service immersion, culminating senior experience involvement, study abroad involvement, and first-year seminar involvement. The model predicted 26% of the variation in students' perception of the environment as Catholic, $F(10, 5027) = 176.62, p < .001$. The variables that contributed most to the model were the mentor engagement variables (personal: $\beta = .23$; leadership: $\beta = .16$), community service participation ($\beta = .12$), and mission-related student organization involvement ($\beta = .12$). See Table 5 for the full regression model.

DISCUSSION

Our results revealed that although students' differing religious affiliations were associated with their search for meaning, the effect was small, as evidenced by the demographic variables only accounting for 1% of the variation in students' search for meaning. A closer look at the findings illustrates that students who identified with other world religions and nonbelief were actually slightly more engaged in a search for meaning than

their Catholic peers. While at first glance the finding might be perplexing to researchers and Catholic educators who would expect Catholic students choosing a Catholic postsecondary institution to be more eager to search for meaning, it may reflect the reality that some Catholic students choosing a Catholic institution are foreclosed in their search for meaning (Marcia, 1966), having never questioned their Catholic beliefs, and that the similarity of the postsecondary Catholic environment does not cause them to question those beliefs. This finding may help to quell some of the critics of Catholic higher education who argue that these colleges and universities are losing their identity by appealing to students with differing religious traditions (Hendershott, 2009).

Our results also illustrated the importance of the Catholic environment in promoting students' search for meaning. The addition of the Catholic environment variable explained 11% of the variation in the model, even after controlling for precollege spiritual disposition. This finding illustrates that a mission-centered Catholic institution may be a good fit for

TABLE 5.
College Experiences Associated With the Catholic Environment

Variable	B	SE	β	Sig.
(Constant)	12.92	.89		
Mentor Engagement – Personal	0.58	.04	.23	**
Mentor Engagement – Leadership	0.67	.07	.16	**
Community Service Participation	0.30	.03	.12	**
Mission-Related Stu. Org Involvement	2.58	.29	.12	**
Leadership Training Involvement	1.60	.38	.06	**
Learning Community Involvement	1.32	.30	.06	**
Short-Term Service Immersion	1.60	.51	.05	*
Culminating Senior Experience	0.77	.36	.03	
Study Abroad	0.60	.35	.02	
First-Year Seminar	0.30	.26	.01	

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

students who desire to deepen their spiritual development, regardless of their religious affiliation. Furthermore, the significant positive relationship between students' search for meaning and their class year indicates that Catholic institutions may provide resources for continued engagement in spiritual exploration during a time that is often wrought with spiritual struggle (Bryant & Astin, 2008; Bryant, Choi, & Yasuno, 2003; Bryant Rockenbach et al., 2012). The finding also extends Kuh and Gonyea's (2006) finding that mission and culture predict students' spiritual enhancement by demonstrating that a Catholic culture in particular affects students' search for meaning.

With the significance of the Catholic environment established, our final analysis honed in on the experiences that students engage in that help to make the Catholic environment more palpable, extending Bryant's (2011) findings about the spiritual activities of religious institutions to a Catholic context. Mentoring (both personal and leadership) topped the list of the variables most closely associated with students' perceptions of their collegiate environment as Catholic, illustrating the role of close relationships with faculty and administrators in helping students reflect on their faith, prepare to serve others, and integrate their values and actions. The finding provides substantiating evidence for Bowman and Small's (2010) discovery that faculty support for religious development is important, broadening who may act as a mentor and suggesting that personal mentorship is the most important in advancing such development. The finding also aligns with the tenets set forth in *Principles of Good Practice for Student Affairs at Catholic Colleges and Universities* (Estanek & James, 2007, 2010), especially those emphasizing the need for student affairs educators at Catholic institutions to be prepared to support the mission through their work with students

and accompany students in their religious and spiritual direction.

The contributions of community service participation and mission-related student organization involvement to students' perceptions of their environment as Catholic are not surprising, especially given Bryant's findings (2011) about the prevalence of experiences that support religious beliefs at religious institutions and the scale's emphasis on service (using gifts and talents to serve others, integrate community service into my life, use my skills to create positive change, understand the role I can play in addressing injustice, etc.).

Perhaps more surprising was the small effect or nonsignificance of other experiences, including leadership training, learning community involvement, short-term service immersion, study abroad, and first-year and culminating seminars in promoting a Catholic environment. The lack of significance of these variables reflects that even at Catholic institutions (where one might expect students to connect their faith and cocurricular involvement), students' participation alone is insufficient in providing avenues to reflect on their faith, prepare to serve others, and integrate their values and actions. Alternatively, because the analysis only reflected whether students participated in these experiences, not the quality of the experiences or their connection to a Catholic environment, the findings may reflect varying quality of these experiences that in turn affects their significance in promoting a Catholic environment. A more nuanced examination of the connection between these variables and the Catholic environment is warranted. Furthermore, since many of the experiences that are associated with creating an environment that students perceive as Catholic remain unknown (recall that only 26% of the variation was explained), additional work is needed to understand fully experiences associated with strengthening students' perceptions of the Catholic environment.

IMPLICATIONS

This study advances higher education theory by extending the findings of other ecological studies of spiritual development (Bryant, 2011; Small & Bowman, 2011) using a more nuanced measure of the Catholic environment. The findings also provide evidence that by attending to outcomes related to mission, faculty and student affairs educators at Catholic institutions play a vital role in students' spiritual exploration. The importance of mentoring relationships in strengthening students' perceptions of the environment as Catholic provides a starting point for administrators and faculty who would like to strengthen students' perceptions of the Catholic tradition. By developing formal avenues for mentoring relationships to flourish (e.g., formal mentoring programs and undergraduate research opportunities) and reward structures that recognize the importance of mentoring (e.g., credit for mentoring in the tenure and promotion process or considering the experiences of mentees in the evaluation process of staff), colleges and universities can create incentives that will encourage mentoring to occur. In conjunction with these programs, it is vital for institutions to build capacity and support for spiritual dimensions for mentoring by providing resources for faculty and staff to understand the missions of Catholic postsecondary institutions and the benefits of addressing the spiritual dimension with students.

For faculty and administrators at secular institutions, the findings provide some guidance on how to allocate resources to encourage support for students' spiritual development. The fact that mentoring played a greater role than any of the mission-related activities in students' perceptions of the environment as aligned with Catholic mission illustrates that support for spiritual development may happen

on secular campuses too, as long as mentors are mindful of the separation of church and state. Given students' high levels of spiritual interest, it would be appropriate for administrators to reconsider whether the denominational organizations that often surround the margins of campus are sufficient and supportive places for students to explore their spirituality.

Another implication for administrators at Catholic institutions is to examine the experiences that were not significant to determine why these experiences did not strengthen students' perceptions of the environment as Catholic. Several of the experiences, namely short-term service immersion, leadership training, and study abroad seem like fitting avenues for students to connect to the Catholic mission. Additional focus on shaping these programs to embody the Catholic tradition is warranted. Administrators should engage the diagnostic queries provided in the second edition of the *Principles of Good Practice* document to assess how closely they wish to align their programs with the Catholic environment, how they might apply the principles to their programs and services, and how they would assess their efforts (Estanek & James, 2010).

A final implication is that university administrators at Catholic institutions should continue embracing religious pluralism in admissions (Association of Catholic Colleges and Universities, n.d.a), as students' differing religious traditions do not have a deleterious effect on their search for meaning. In fact, having differing faith traditions on campus may enrich Catholic students' search for meaning by providing opportunities for dissonance between the religion with which they were raised and the religions they encounter (Bryant, 2011; Marcia, 1966).

As postsecondary institutions consider how to support students' search for deeper meaning in their lives, this study provides

evidence that environments can be deliberately designed to foster spiritual development. Further, the study offers guidance on the experiences that help students believe that there is institutional support for their search for meaning. Additional research is needed to understand how mentoring deepens students' search for meaning.

REFERENCES

- Anaya, G. (1999). College impact on student learning: Comparing the use of self-reported gains, standardized test scores, and college grades. *Research in Higher Education, 40*, 499-526.
- Association of Catholic Colleges & Universities. (n.d.a). *Welcome*. Retrieved from <http://www.accunet.org>
- Association of Catholic Colleges & Universities. (n.d.b). *FAQs*. Retrieved from <http://www.accunet.org/i4a/pages/index.cfm?pageid=3797#1>
- Astin, A. W. (2002). *Assessment for excellence*. Westport, CT: Oryx.
- Astin, A. W., Astin, H. S., & Lindholm, J. A. (2011). *Cultivating the spirit: How college can enhance students' inner lives*. San Francisco, CA: Jossey-Bass.
- Astin, A. W., Astin, H. S., Lindholm, J. A., Bryant, A. N., Calderon, S., & Szelényi, K. (2005a). *The spiritual life of college students: A national study of college students' search for meaning and purpose*. Los Angeles, CA: Higher Education Research Institute, University of California, Los Angeles.
- Astin, A. W., Astin, H. S., Lindholm, J. A., Bryant, A. N., Calderon, S., & Szelényi, K. (2005b). *Spiritual and the professionate: A national study of faculty beliefs, attitudes, and behaviors*. Los Angeles, CA: Higher Education Research Institute, University of California, Los Angeles.
- Barker, R. G. (1968). *Ecological psychology: Concepts and methods for studying the environment of human behavior*. Stanford, CA: Stanford University Press.
- Baxter Magolda, M. B. (2001). *Making their own way: Narratives for transforming higher education to promote self-development*. Sterling, VA: Stylus.
- 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.
- Bradburn, N. M., & Sudman, S. (1988). *Polls and surveys: Understanding what they tell us*. San Francisco, CA: Jossey-Bass.
- Bryant, A. N. (2011). The impact of campus context, college encounters, and religious/spiritual struggle on ecumenical worldview development. *Research in Higher Education, 52*, 441-459.
- Bryant, A. N., & Astin, H. S. (2008). The correlates of spiritual struggle during the college years. *Journal of Higher Education, 79*, 1-27.
- Bryant, A. N., Choi, J. Y., & Yasuno, M. (2003). Understanding the religious and spiritual dimensions of students' lives in the first year of college. *Journal of College Student Development, 44*, 723-745.
- Bryant Rockenbach, A., Walker, C. R., & Luzader, J. (2012). A phenomenological analysis of college students' spiritual struggles. *Journal of College Student Development, 53*, 55-75.
- Buckley, M. J. (1993). The Catholic university and the promise inherent in its identity. In J. P. Langan (Ed.), *A dialogue on Ex Corde Ecclesiae* (pp. 74-89). Washington, DC: Georgetown University Press.
- Converse, J. M., & Presser, S. (1989). *Survey questions: Hand-crafting the standard questionnaire*. Newbury, CA: SAGE.
- Dugan, J. P. (2009). *Multi-institutional study of leadership: School report*. College Park, MD: National Clearinghouse for Leadership Programs.
- Estanek, S. M., & James, M. J. (2007). *Principles of good practice for student affairs at Catholic colleges and universities*. Chicago, IL: Association of Catholic Colleges and Universities, Association for Student Affairs at Catholic Colleges and Universities, and Jesuit Association of Student Personnel Administrators.
- Estanek, S. M., & James, M. J. (2010). *Principles of good practice for student affairs at Catholic colleges and universities: Second edition with diagnostic queries*. Chicago, IL, Association of Catholic Colleges and Universities, Association for Student Affairs at Catholic Colleges and Universities, and Jesuit Association of Student Personnel Administrators.
- Gallin, A. (2000). *Negotiating identity: Catholic higher education since 1960*. Notre Dame, IN: University of Notre Dame Press.
- Gonyea, R. M. (2005). Self-reported data in institutional research. In P. Umbach (Ed.), *New Directions for Institutional Research Monograph: No. 127. Survey research: Emerging issues* (pp. 73-89). San Francisco, CA: Jossey-Bass.
- Hendershott, A. B. (2009). *Status envy: The politics of Catholic higher education*. New Brunswick, NJ: Transaction.
- John Paul II. (1990). *Ex corde ecclesiae*. Falls Church, VA: Cardinal Newman Society.
- Knefelkamp, L. L., Widick, C., & Parker, C. A. (Eds.). (1978). *New Directions for Student Services: No. 4. Applying new developmental findings*. San Francisco, CA: Jossey-Bass.

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- Kreft, I., & De Leeuw, J. (1998). *Introduction to multilevel modeling*. Thousand Oaks, CA: SAGE.
- Kuh, G. D. (2008). *High-impact educational practices: What they are, who has access to them, and why they matter*. Washington, DC: Association of American Colleges & Universities.
- Kuh, G. D., & Gonyea R. M. (Winter 2006). Spirituality, liberal learning, college student engagement. *Liberal Education*, 92, 40-47.
- Marcia, J. E. (1966). Development and validation of ego-identity status. *Journal of Personality and Social Psychology*, 3, 551-558.
- Moos, R. H., & Insel, P. M. (1974). *Issues in social ecology: Human milieus*. Palo Alto, CA: National Press Books.
- National Center for Educational Statistics. (2008). *2008 national postsecondary student aid study* (NPSAS: 2008). Washington, DC: U. S. Department of Education, National Center for Education Statistics.
- Parks, S. D. (2000). *Big questions, worthy dreams: Mentoring young adults in their search for meaning, purpose, and faith*. San Francisco, CA: Jossey-Bass.
- Pascarella, E. T., & Terenzini, P. T. (2005). *How college affects students (Vol. 2): A third decade of research*. San Francisco, CA: Jossey-Bass.
- Porter, S. R. (2011). Do college student surveys have any validity? *Review of Higher Education*, 35, 45-76.
- Raudenbush, S. W., & Bryk, A. S. (2002). *Hierarchical linear models: Applications and data analysis methods*. Thousand Oaks, CA: SAGE.
- Renn, K. A. (2003). Understanding the identities of mixed-race college students through a developmental ecology lens. *Journal of College Student Development*, 44, 383-403.
- Renn, K. A., & Arnold, K. D. (2003). Reconceptualizing research on college student peer culture. *Journal of Higher Education*, 74, 261-291.
- Small, J. L., & Bowman, N. A. (2011). Religious commitment, skepticism, and struggle among U. S. college students: The impact of majority/minority religious affiliation and institutional type. *Journal for the Scientific Study of Religion*, 50, 154-174.
- Strange, C. C., & Banning, J. H. (2001). *Educating by design: Creating campus learning environments that work*. San Francisco, CA: Jossey-Bass.
- Thon, A. (2013). *The Ignatian imperative: Student affairs educators in Jesuit higher education*. Milwaukee, WI: Marquette University College of Education.
- Torres, V., Jones, S. R., & Renn, K. A. (2009). Identity development theories in student affairs: Origins, current status, and new approaches. *Journal of College Student Development*, 50, 558-573.
- Trautvetter, L. C. (2007). Developing students' search for meaning and purpose. In G. L. Kramer and Associates (Eds.), *Fostering student success in the campus community* (pp. 236-261). San Francisco, CA: Jossey-Bass.
- Tyree, T. (1998). *Designing an instrument to measure socially responsible leadership using the social change model of leadership development* (Unpublished doctoral dissertation). University of Maryland, College Park