

Preliminary Findings on Spiritual Development and the College Experience: A Longitudinal Analysis (2000-2003)

The Templeton Project is designed as a longitudinal study where entering freshmen are tracked through their college years in an effort to identify types of colleges and college experiences that facilitate students' spiritual development. Thus, the large-scale freshman survey planned for Fall 2004 is actually a "pretest" for subsequent longitudinal follow ups that will make it possible to assess *changes* in these students' spiritual/religious development during the undergraduate years.

Since the pilot survey conducted in Spring 2003 was a longitudinal follow up of students who entered college in Fall 2000, it is possible to carry out certain preliminary longitudinal studies to identify some of the types of colleges and college experiences that affect students' spiritual development. Given that longitudinal studies are concerned with *changes* in students over time, it is important that college outcomes ("posttests") also be "pretested" at the time in which students enter college. The Spring 2003 survey contained four items related to the student's spiritual/religious development that were also pretested three years earlier in the Fall of 2000 survey:

- **Spirituality** ("Rate yourself...as compared with the average person your age: Highest 10%, Above Average, Average, Below Average, or Lowest 10%")
- **Attended a religious service** ("During the past year: Frequently, Occasionally, Not at All")
- **Integrating spirituality into my life** (Essential, Very Important, Somewhat Important, Not Important)
- **Developing a meaningful philosophy of life** (Essential, Very Important, Somewhat Important, Not Important)

A series of four longitudinal regression analyses (one for each of these outcomes) was run to identify types of colleges and college experiences that affected students' responses to these items. In each analysis the 2003 posttest to the item served as the student outcome (dependent) variable, and predictor (independent) variables were placed in seven sequential blocks as follows:

1. Fall 2000 pretest
2. Demographic characteristics (gender, race, and religion) [n = 28]
3. Other relevant input characteristics (values, behavior, etc.) [n = 16]
4. Bridge variables (living arrangement) [n = 1]
5. Institutional characteristics (selectivity, type, student peer characteristics, etc.) [n = 11]
6. College major field of study [n = 20]
7. Activities/experiences during college (religious involvement, time spent studying, etc.) [n = 36]

Variables within each block were added to the regression until no additional variable could produce a significant ($p < .001$) reduction in the residual sum of squares, after which variables in the next block were considered for entry. The pretest (block 1) was entered first so that the other variables could be viewed in terms of how well they predicted *change* in the outcome measure (i.e., from 2000 pretest to 2003 posttest). The remaining blocks were ordered according to their assumed temporal sequence of occurrence.

Change Between 2000-2003

Data on changes will first be presented separately for each of the four student outcome measures, after which we shall consider the results of the regression analyses.

Self-rated Spirituality

While nearly half (47%) of the students rate themselves either “above average” or in the “top 10%” in spirituality as entering freshmen in 2000, this figure drops to only 39% by 2003. College students, in other words, tend to see themselves as less spiritual by the end of their junior year than they do when they first enter college.

If we cross-tabulate the individual students’ freshman responses against their junior year responses, we find that only 20% rated their spirituality higher in 2003 than in 2000, compared to 36% who rated it *lower* in 2003 than in 2000.

Attendance at Religious Services

There is a substantial decline in attendance at religious services during the first three years of college: whereas 52% of the students report frequent attendance at religious services during the year prior to entering college, only 29% report frequent attendance during their junior year (an absolute drop of 23%). This decline is clearly consistent with the students’ declining self-ratings on spirituality.

Importance of Spirituality

Despite these declines in attendance at religious services and self-rated spirituality, students come to attach greater personal *importance* to spirituality during their first three years of college. Thus, between 2000 and

2003 the percent who say that “integrating spirituality into my life” is either an “essential” or “very important” goal in life increases from 51% to 58%.

When we cross-tabulate the students’ freshman and junior responses to look at how individual students changed during the three years, we find that nearly half (48%) give the same response in 2000 and 2003. Of those who changed their response, 61% *strengthened* their commitment to this value. For example, of the 672 freshmen who rated the value as “not important” in 2000, 15% had switched to either “very important” or “essential” by 2003. By contrast, only 10% of the 908 freshmen who rated this value as “essential” in 2000 switched to either “somewhat important” or “not important” in 2003.

In short, these data make it clear that a substantial majority of students—60%, in fact—either maintain a strong commitment (29%), or strengthen their commitment (31%), to the value of integrating spirituality into their lives during the first three years of college. The remaining 40% of the students are about equally divided between those who maintained their low level of commitment (20%) and those whose level of commitment declined (20%).

Importance of Developing a Life Philosophy

A similar pattern of change emerges with the personal importance that students assign to “developing a meaningful philosophy of life”: the percent who say that this is either an “essential” or “very important” goal in life increases from 43% to 52% between 2000 and 2003. As with the previous outcome, those students who either strengthened their commitment to this value or maintained their initially strong commitment substantially outnumber those who maintained an initially weak commitment or whose commitment declined (57% versus 43%).

Next we shall explore some of the factors that contribute to these changes.

Factors Influencing Change During College

Environmental variables that significantly influence change in the four student outcomes will be discussed under three headings: Institutional Characteristics, Major Field of Study, and Activities/Experiences During College.

Institutional Characteristics

Attending an “Evangelical”¹ college has significant positive effects on three of the four student outcomes: self-rated “spirituality,” attendance at religious services, and commitment to developing a meaningful philosophy of life. Given that the mission of such institutions tends to be explicitly focused on strengthening and enriching the student’s spiritual and religious life, such a pattern of effects is perhaps to be expected. Further analyses of college activities/experiences indicate that the Evangelical college students’ smaller-than-average decline in attendance at religious services is associated primarily with the fact that they are much more likely than students at other types of colleges to “read sacred texts.” Similarly, their smaller-than-average decline in self-rated “spirituality” is primarily associated their tendency to pray more often than students at other types of colleges. Finally, the Evangelical college students’ larger-than-average increase in commitment to “developing a meaningful philosophy of life” appears to be attributable in part to the fact that their professors are more likely than professors at other colleges to “provide opportunities to discuss the meaning/purpose of life.”

¹ Colleges affiliated with Baptist, Christian Reformed, and Church of Christ denominations were classified as “Evangelical,” as were 2 “independent” institutions with clear commitments to evangelical Christianity.

Attendance at religious services is also positively affected by the overall level of self-rated “spirituality” of the student peer group, and negatively affected by attendance at a private-nons sectarian college.

Students’ self-rated “spirituality” is negatively affected by attendance at a four-year college (as opposed to a university), while the student’s commitment to “integrating spirituality into my life” is positively affected by the overall level of peer attendance at religious services and negatively affected by institutional selectivity.

Major Field of Study²

Students who major in history/political science, compared to students in most other majors, show larger-than-average increases in commitment to “developing a meaningful philosophy of life” and smaller-than-average decreases in self-rated “spirituality.” Larger-than-average increases in commitment to “developing a meaningful philosophy of life” are also associated with majoring in humanities/English, education, or technical/applied fields. Smaller-than-average declines in self-rated “spirituality” are related to majoring in either journalism/communications or fine arts. Finally, the only major associated (in this case, positively) with attending religious services is the allied health professions.

Activities/Experiences During College

The single activity that is most strongly associated with the outcomes of “integrating spirituality into my life” and self-rated “spirituality” is prayer. The amount of time that the student spends in prayer also shows a substantial positive relationship with attendance at religious services. Next in importance appears to be “discussed religion/spirituality with friends,”

² Findings related to major field should be interpreted with caution because of small n's per major field category.

which has considerable positive associations with three outcomes: self-rated “spirituality” as well as commitment to both “integrating spirituality into my life” and “developing a meaningful philosophy of life.” These latter two values are also positively associated both with “discussing the meaning/purpose of life with friends” and “many of my friends are searching for meaning/purpose in life.” This pattern of findings underscores, once again, the importance of the peer group, which has been shown in much earlier research (Astin, 1993; Feldman and Newcomb, 1969) to be a major source of influence on the development of the individual student during the college years.

The frequency with which the student engages in meditation is positively associated both with self-rated “spirituality” and with commitment to “developing a meaningful philosophy of life.” Positive changes in this latter value are also associated with “self-reflection” and with the extent to which faculty “provided opportunities to discuss the meaning/purpose of life.” Finally, attendance at religious services and self-rated “spirituality” are positively associated with attending a class/workshop/retreat on religion/spirituality, with religious singing/chanting, and with converting to another religion.

The only college activity that is negatively associated with any of these four student outcomes is the number of hours that the student spends “partying,” which is negatively related to attending religious services.

Spirituality and Other College Outcomes

In addition to assessing the effects of college on the student’s spiritual development, the study also seeks to understand how spiritual development affects other college outcomes. While conclusive answers to such questions must necessarily await the larger-scale longitudinal study begun in Fall

2004,³ it is still possible with the data in hand to determine how measures of spirituality developed from the 2003 follow-up questionnaire are associated with other college outcomes. While such analyses cannot provide definitive evidence of the “effects” of spiritual measures, they can provide suggestive evidence for how various aspects of spirituality might affect these other college outcomes.

For this purpose we identified six college outcomes. The first four outcomes are frequently used in studies of college impact, while the last two were included because we believed that they might be related to the student’s spiritual development.

- Academic performance (average college grade, or GPA)
- Degree aspirations (highest degree aspired to: less than bachelor’s, bachelor’s, master’s, doctorate or advanced professional degree)
- Satisfaction with college (satisfaction with the “overall college experience”: very satisfied, satisfied, neutral, dissatisfied)
- Self-Esteem (composite of seven self-ratings: self-confidence (intellectual), self-understanding, courage, emotional health, self-awareness, self-confidence (social), and leadership ability)
- Physical Health (self-rated: 5-point scale from “top 10%” to “bottom 10%”)
- Psychological Distress (composite of three items: felt depressed, felt that my life was filled with stress and anxiety, felt overwhelmed by all I had to do)

Some form of “pretest” was available from the 2000 freshman survey on each of these six outcomes, although in four instances the pretest differed

³ In addition to the much larger sample, a major advantage of this study is that measures of the student’s spirituality and spiritual development will be available longitudinally, that is, on a pretest (freshman)-

slightly. Thus, (a) the pretest for academic performance in college is the student's *secondary* school grade average; (b) the pretest for college satisfaction is the entering freshman's *estimate* of how satisfied he or she would be; (c) the pretest for Self-Esteem does not include "courage" or "self-awareness"; and (d) the pretest for Psychological Distress does not include "felt that my life is filled with stress and anxiety."

Six separate regression analyses, one for each college outcome, were carried out using a methodology similar to the one used for the spirituality and religion outcomes. In addition to the inclusion of the new freshman pretests, the only differences were a less exhaustive list of college activities and experiences in block seven and the inclusion of five spirituality factor measures in the last (eighth) block of variables: Spirituality, Equanimity, Religious Skepticism, Spiritual Quest, and Compassionate Self-Concept. The principal goal of these analyses was thus to determine if changes (between 2000-2003) in the six outcomes are associated either with any of these five factors or with any of the spiritual/religious *behaviors* included in block seven.

Academic Performance in College

As expected, the student's high school grades turn out to be by far the strongest predictor ($r = .56$) of college grades. The college grades of women are higher than what would be expected from their high school grades, whereas lower-than-expected college grades occur among students who either worked for pay or partied a lot in high school and students who entered college expecting to join a social fraternity or sorority. Lower-than-expected grades also occur among students attending highly selective institutions, a finding which no doubt reflects the more stringent grading

posttest (junior) basis.

standards that one is likely to find in such institutions. Students majoring in history/political science earn higher-than-expected grades, as do students who have double majors. And, not surprisingly, students who put in a lot of time studying in college also earn higher-than-expected grades.

Even after all of the above variables are taken into account, several spiritual/religious factors turn out to affect academic performance in college. Higher-than-expected grades tend to occur among students who show high levels of either Religious Involvement (reading sacred texts and other materials on religion and spirituality, attending religious services, engaging in religious singing/chanting, etc.) or Equanimity (feeling good about the direction of their lives, feeling at peace and centered, seeing each day, good or bad, as a gift, etc.). It should be stressed, however, that with Equanimity the direction of causation is particularly ambiguous, since just as Equanimity might facilitate the student's academic performance, so might getting good grades enhance the student's sense of Equanimity. Clearly, this is a finding that merits further investigation.

Degree Aspirations

As expected, freshman degree aspiration is the strongest predictor of degree aspirations at the end of the junior year ($r = .39$). College majors that are associated with raised degree aspirations include biological sciences, psychology, and history/political science, whereas majoring in either business or journalism/communications is associated with a lowering of degree aspirations. Higher-than-expected junior year degree aspirations also occur among students who attended colleges where the *peer* level of commitment to developing a meaningful life philosophy is high. Charitable Involvement (e.g., participation in community food/clothing drives, doing

volunteer work, helping friends with personal problems, etc.) during college is also associated with raised degree aspirations.

Satisfaction with College

Students who are most satisfied with their overall college experience include not only those who started college *expecting* to be satisfied, but also those who attended private (as opposed to public) colleges, women, Caucasians, those who had a part-time job on campus, and those who either studied a lot or partied a lot in college! Students who tend to be least satisfied with their college experience include those who worked a lot for pay prior to entering college and those who majored in business, engineering, biological sciences, or social sciences.

Once these factors are taken into account, several spiritual/religious factors turn out to be related to college satisfaction. Thus, students who show a high level of either Equanimity or Religious Involvement during college report higher levels of satisfaction with their overall college experience, as do those who exhibit a high degree of Charitable Involvement.

Self-Esteem

The freshman pretest proves to be by far the strongest predictor ($r = .52$) of Self-Esteem as assessed at the end of the junior year in college. Students whose junior year level of Self-Esteem turns out to be higher than what would be predicted from their freshman level include men, those who exercised a lot before entering college, those attending universities (as opposed to four-year colleges), those majoring in history/political science, technical/applied fields, fine arts, or who had double majors, and those who participated in intercollegiate sports other than football or basketball. Lowered self-esteem is associated with majoring in computer science.

Once these factors are taken into account, students who show an increase in self-esteem during college tend to be students who also show high levels of Equanimity, Compassionate Self-Concept (self-rated kindness, forgiveness, empathy, etc.), and Charitable Involvement.

Psychological Distress

As with the other outcomes, the freshman pretest turns out to be the strongest predictor of this student outcome. Other predictors that are associated with increased Psychological Distress during college include being a woman and studying a lot both in high school *and* in college. Lowered Psychological Distress during college is associated with watching a lot of TV prior to entering college, socializing with friends before *and* after entering college, majoring in either fine arts or journalism/communications, and exercising a lot during college.

Once these factors are taken into account, several spiritual/religious factors are associated with changes in the student's level of Psychological Distress during college. Increased distress is associated with having a Spiritual Experience (while witnessing the beauty and harmony of nature, viewing a great work of art, listening to beautiful music, etc.) during college, Charitable Involvement, and being on a Spiritual Quest (seeking beauty in life, finding answers to the mysteries of life, searching for meaning and purpose in life, etc.), while decreased stress is associated with Equanimity and, to a lesser extent, Religious Involvement.

Self-rated Physical Health

Once again the freshman pretest turns out to be the strongest predictor of this junior year college outcome ($r = .48$). Increased self-rated physical health during college is associated with time spent exercising both before *and* after entering college, socializing with friends before entering college,

being male, being politically conservative, and majoring in fine arts. Once these factors are controlled, increased self-ratings of physical health are associated with self-rated “spirituality” and Compassionate Self-concept.