A questionnaire was administered to all 6th to 12th grade students attending Seventh-Day Adventist schools in North America. The questionnaire included the Age-Universal Intrinsic-Extrinsic Scale; the Faith Maturity Scale; an 18-item Adventist orthodoxy scale; and scales measuring the frequency of use of alcohol, marijuana, and tobacco, and of shoplifting, fighting, and getting into trouble at schools. There was little variance across grades in the intrinsic (I), extrinsic (E), faith maturity, or orthodoxy scores, in the latter case largely due to ceiling effects. The I-E correlation began as positive for boys, but declined to 0, and then was -0.14 by 12th grade. For girls, the correlation was negative throughout, ranging from -0.06 in the 6th grade to -0.26 in 12th. When correlated with the at-risk behaviors, all the I correlations were negative, with girls' correlations stronger than the boys', ranging in the teens and low twenties, and becoming stronger across the 6 years of schooling. This pattern was almost completely reversed for the E correlations, with correlations positive, and higher for boys, but then plummeting near 0 for both boys and girls in the 11th and 12th grades. (Author/JDM)
Religious Orientation and Development Amongst Adventist Youth

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Abstract

A questionnaire administered to all 6th- to 12th-grade students attending Seventh-day Adventist schools in North America included: the Age-Universal Intrinsic-Extrinsic Scale (R. Gorsuch & G. D. Venable, 1984); the Faith Maturity Scale, (P. Benson, M. Donahue, & J. Erikson, 1993), an 18-item Adventist orthodoxy scale; measures of the frequency of use of alcohol, marijuana, and tobacco, and of shoplifting, fighting, and getting into trouble at school. There was little variance across grades in the intrinsic (I), extrinsic (E), faith maturity, or orthodoxy scores, in the latter case largely due to ceiling effects. The I-E correlation began as positive for boys, but declined to zero, and then was -.14 by 12th grade. For girls, the correlation was negative throughout, ranging from -.06 in the 6th grade to -.26 in twelfth. When correlated with the at-risk behaviors, all the I correlations were negative, with girls' correlations stronger than the boys, ranging in the teens and low twenties, and becoming stronger across the 6 years of schooling. This pattern was almost completely reversed for E correlations, with correlations positive, and higher for boys, but then plummeting near zero for both in the 11th and 12th grades.
Religious Orientation and Development Amongst Adventist Youth

The Seventh-day Adventist Church has recently launched Valuegensis², a ten-year follow-up study of the influence of family, church and school on the formation of faith in Seventh-day Adventists. This program involves the administration of surveys to all of the 6th- through 12th-grade students in Adventist-sponsored schools in North America. The survey, nearly five hundred items long, includes sections on the perceptions of the "climate" of the students' churches and schools, and a variety of behavior self-reports, including altruistic and illegal behaviors, as well as those that are violations of the Adventist behavioral standards (e.g., smoking, wearing jewelry). A variety of measures concerning family "climate" and parent-child interactions are included, as well as the students' perceptions of major influences on their religious development. There are also a number of religiousness measures: a modification of the Faith Maturity Scale (Benson, Donahue, & Erikson, 1993); scales measuring belief concerning the nature of "grace" and "works," both conservative Christian and specifically Adventist beliefs, and Gorsuch and Venable's (1983) "Age-universal I-E scale."

The specific focus of this paper will be on the cross-sectional analysis of changes in measures of religious orientation, and their relation to various measures of at-risk behaviors, over time (6th to 12th grade) and by gender. The specific measures to be examined will be a version of Gorsuch and Venable's "age universal" I-E scale, a modification of Benson, Donahue and Erickson's Faith Maturity Scale, and an Adventist Belief Orthodoxy scale.

Method

The North American Division of the Seventh-day Adventist church, having gained much helpful insight into the joys, concerns, needs and complaints of their members through a broadly-based survey some ten years ago (Benson & Donahue, 1990), decided to replicate the study, although this time on a somewhat more focused level. While the first survey involved grammar school, high school, and college
students, as well as parents, teachers, school administrators, and clergy, this second survey was conducted as a census of all students in the 6th to 12th grades in Adventist schools. The large database thereby generated, some 16,000 responses, was then reduced using several criteria. First, only Adventist students attending Adventist schools, not including home schools, were included. Secondly, all respondents who claimed to have engaged in all nine at-risk behaviors (to be listed below) at a frequency that approached once a week or more during the previous year, were excluded from the sample as most likely displaying either an inattentive or malingering response style. Third, all respondents who had missing data on any one of the 57 items used to measure the independent and dependent measures in the study were also excluded. This left a total of 9,110 respondents.

**Measures**

The item wording and further psychometric information about the scales to be described will be available from the author in the full version of this paper.

**Religiousness Measures**

*Age Universal I-E.* Because the age of the respondents was to vary from 12 to 18, Gorsuch and Venable's (1984) rewording of Allport and Ross's original intrinsic and extrinsic scales were employed. Factor analysis and item-total correlations yielded a seven-item subset of the I scale that had good reliability (alpha = .85) with this population, and a 9-item version of the extrinsic scale displayed a respectable alpha of .76.

*Faith Maturity Scale.* The original response format of the Faith maturity scale employed a response format which presented frequencies from "never" to "often." The difficulty with this approach is that these frequencies then interacted with various verbs and adverbs in the question stems. What, for example, does it mean to say that "it is sometimes true that I often feel the presence of God in my relationships." In order to deal with this difficulty, a revision of the short version of the FMS was constructed, using simple declarative sentences and a five-item frequency response. The resulting...
Adventist Religious Orientation and Development

scale had an alpha reliability of .85, equal to that of the original.

Adventist orthodoxy. A large group of items relating to both broadly Judeo-Christian ("The Ten Commandments still apply to us today.") and specifically Adventist beliefs. ("The Seventh-day Church is God's true last-day church, preparing the world for the Second Coming of Jesus Christ."). Twenty-three such items were subjected to a factor analysis, producing a large first factor, and none others that passed a scree test. A total of 18 such items which loaded on the general factor .55 or higher were combined in to a scale of Adventist orthodoxy with an alpha of .87.

At-risk behaviors.

Eight measures were adapted from the Monitoring the Future surveys of high school seniors. They measured the frequency of each of the following behaviors in the previous 12 months, on a seven-point scale from "never" to "40 or more times." The behaviors were drinking alcohol alone or with a friend; having five or more drinks in a row (referred to in national statistics as "binge" drinking); use of marijuana; use of cocaine; use of tobacco; shoplifting; hitting or beating someone up; and getting into trouble at school. (Note that anyone who claimed to have done all of these things 40 or more times in the last year was excluded from the analysis). In order to avoid duplication of analyses due to intercorrelations, only four of the measures (bingeing, tobacco, shoplifting and trouble at school) were examined here. In terms of religiousness measures, attention in the correlational analyses focuses on intrinsic and extrinsic religiousness.

Demographics

In addition to these measures, single item-measures of both age and grade in school were included in the analysis.

Results

Scale Means

One of the purposes of this research was to examine cross-sectionally changes in the values of the various religiousness measures. Detailed tables are available from the
author (mjdonahue@aol.com), but as it happens, the findings can be summarized fairly straightforwardly.

**Intrinsic Religiousness**

Relatively little variance on the intrinsic religiousness measure was observed. For boys scores varied between 30.8 (6th grade) and 28.4 (10th and 12th grade) with a mean of 29.0. Girls varied between 31.3 (6th grade) and 29.0 (10th grade) with a mean 30.0. It would be appropriate to note here that, due to the very large sample size, essentially all differences and effects are significant, but these clearly are not of significant magnitude to be meaningful. Also, strictly speaking, these are population values, not estimates, because the methodology was a census, not a sample. While there may be concerns about nonresponse bias, sampling issues do not actually enter into the discussion.

**Extrinsic Religiousness**

The "E" scale likewise showed little variance: for boys, a mean of 25.3, varying from 26.5 (7th grade) to 24.1 (12th grade). For girls, a mean of 24.6 (7th and 8th) to 22.8 (8th). It is perhaps noteworthy that both the boys and the girls showed a 0.9 point decrease in extrinsic between 11th and 12th grade, and while operating with different means, showed peak and trough values at the same grades for both intrinsic and extrinsic religiousness.

**Orthodoxy**

The orthodoxy measure demonstrate clear ceiling effects. On a scale with a maximum score of 108, the boys showed a low point of 96.9 (7th grade) and a high of 99.8 (11th grade); the girls a low of 96.8 (6th grade) and a high of 101.2 (11th and 12th grade).

**Faith Maturity**

The Faith Maturity scale displayed a fairly remarkable stability across these six years of schooling, while scoring in the midrange of the scale. On a scale with a high of 60, the boys ranged between 38.3 and 40.5; the girls between 41.1, and 43.6.
In each of these measures, then, there were small gender differences, with the girls scoring higher on each of the scales except extrinsic religiousness, and with boys and girls showing similar patterns of change across the various grade-cohorts.

**The I-E Correlation**

The correlation between the intrinsic and extrinsic religiousness scales in these data, for boys, started at a level that is quite a bit more positive compared with that observed in most previous research, .18. But it then falls to .00 by 8th grade, and becomes increasingly negative, -.14 by 12th grade. It should be noted that the vast majority of previous data have been gathered on high school students, and there is very little comparison data for grammar school students.

The correlation for girls, on the other hand, goes from -.06 in 6th grade to -.26 in 9th; declines to -.17 between 9th and 11th, and then rises again to -.26 in 12th. To the extent that previous research indicates that more negative I-E correlations signal more conservative theologies (Donahue, 1985) this change is not as smooth as the monotonic increase in Orthodoxy scales might have predicted.

**Relations to At-Risk Behaviors**

At the risk of overgeneralizing, the correlation of the intrinsic and extrinsic religiousness measures with the at-risk behaviors examined here have sufficient similarities across grade and gender that they can be described as patterns that are stable within measures of religiousness and across the four measures of at-risk behaviors: using tobacco, getting in trouble at school, shoplifting, and binge drinking.

**Intrinsic Religiousness**

All of the correlations are negative, with the girls' data producing correlations values higher than those of the boys by .03 to .05. All correlations tend to range in the teens and low twenties, and become stronger across the 6 years of schooling observed here.
Extrinsic Religiousness

Here the pattern is almost completely reversed. Nearly all the correlations are positive, with boys higher than girls. Correlations tend to range from the mid single digits to the mid teens, and to rise from 6th to 10th grade, but then plummet to near zero in 11th and / or twelfth grade.

Discussion

It would appear that there is relatively little here to get excited about. There were no real surprises -- indeed, no real variance -- at the level of means. There is some evidence that the relationship of at-risk behaviors tends to become more strongly negative with intrinsic religiousness and less strongly positive with extrinsic religiousness, but even in the case of intrinsic, the correlations rarely exceed .20. But the data set involved here has barely been touched, and it can be expected that further and more sophisticated analysis will reveal more substantive patterns. Stay tuned.
Adventist Religious Orientation and Development

References


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