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Abstract

Religiosity can significantly impact human behavior yet little is known about how religious belief and practice integrate with work. Using the Faith at Work Scale, we surveyed Christian workers in the United States ($n = 374$) and found that work-faith integration was positively associated with faith maturity, church attendance, age and denominational strictness, and negatively associated with organizational size. Denominational groups varied in their degree of integration but displayed similar patterns across dimensions of integration. Work-faith integration was manifest most strongly in integration related to the self, and somewhat less so in areas related to others and in transcendent aspects of work. Respondents attributed spiritual disciplines and workplace mentors as salient influences of work-faith integration. Implications for workplace spirituality scholarship and management are explored.

Keywords

denominational strictness, organizational behavior, religiosity, work-faith integration, work and religion, workplace faith, workplace spirituality

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Religion can powerfully shape attitudes, perceptions, and behavior (Emmons and Paloutzian, 2003; Pargament et al., 2005; Regnerus and Smith, 2005) and can impact work-related practices such as stress management, career development, risk aversion, and ethics (Brotheridge and Lee, 2007; Duffy, 2006; Ebaugh et al., 2003; Hilary and Hui, 2009; Longenecker et al., 2004; Mickel and Dallimore, 2009; Vitell, 2009). Religions are diverse and complex and the ways in which they can combine with work are multifaceted (cf. Alford and Naughton, 2001; Miller, 2007; Society for Human Resource Management, 2002). Workplace spirituality scholarship has recognized this impact generally but addresses belief at the aggregate level instead of exploring individual belief systems. The purpose of this research is to examine work-faith integration among one group of religious workers – Christians – to better understand the nuances of work-faith integration and consider what might be learned from specific belief systems.

Religion, spirituality, and work

The Protestant work ethic (Furnham, 1990; Jones, 1997) and workplace spirituality (Giacalone and Jurkiewicz, 2003; Marques et al., 2009; Mitroff and Denton, 1999) constitute two significant intersections of research in work and religion. In the first case, Weber (1958 [1904]: 40) sought to explain differences in global socio-economic development vis-a-vis ‘the permanent intrinsic character of . . . religious beliefs.’ His writing on Christianity and capitalism is best known but he produced similar research on five other world religions. Workplace spirituality researchers, on the other hand, generally focus on the consequences of spirituality and pay little attention to the content of belief systems. This functional approach has the advantage of dampening normative noise (Droogers, 2009) but it also limits the exploration of unique contributions and interactions of religions and spiritualities in organizations (Gotsis and Kortezi, 2008; Hicks, 2003).

Considerable diversity exists within religions; not treating deistic, humanistic, and ecological spiritualities in unique ways will lead to imprecise and even distorted generalizations. In contrast to spirituality, religion incorporates a distinctive worldview that reflects particular values and social roles (Cavanaugh, 2001). ‘In the absence of information about why an individual engages in a particular religious or spiritual behavior, it can be difficult to infer whether that particular behavior is reflecting religiousness, spirituality, or both’ (Hill et al., 2000: 71). Where religion is salient, knowledge of its normative nature can illumine particular social and organizational processes (King et al., 2009).

To explore the distinctive nature of religions and spiritualities, a third, smaller branch of work-related scholarship has developed. Workplace faith research ‘recognizes the generalities and openness of spirituality and at the same time includes the particularities of the more codified and institutionalized nature of religion’ (Miller, 2007: 18). Workplace faith incorporates research on personal as well as cultural religious influences on work and does so across a large variety of religions, spiritualities, and belief systems (e.g. Ali, 2005; Hill, 2007). Although considering belief systems at work may seem foreign, Hicks (2003: 2) argues that: ‘The religious commitments of employees find their way into the workplace, whether or not managers or scholars acknowledge it.’ Weber and workplace

spirituality scholars view cultural and personal belief as recognizing a vast field of social phenomena that impacts work and organization (Mitroff and Denton, 1999), yet workplace faith has attracted relatively little theoretical and empirical research (Jackson et al., 2006; Lund Dean and Fornaciari, 2007). Our intent is to extend both.

Work-faith integration

Extent

In their research on Christian professors, Thompson and Miller-Perrin (2008) and Schutte (2008) found that religious faculty members derived motivation from viewing work as a calling rather than a job. In other research, nurses and low-income service workers struggled to reconcile work and religion. Many doubted religion's relevance to stressful and distasteful daily tasks but relied on religion as a resource for coping (Grant et al., 2004; Sullivan, 2006). Even belief-based organizations, which explicitly incorporate religion in work, experience gaps between professed and practiced faith (Nakata, 1998). According to Krieger (1994: 17):

Virtually all Christians in the workplace relate faith and work explicitly or indirectly, with certainty or with doubt, passionately or lifelessly, with strong integration or no integration. For some, faith and work is a seamless web, richly and creatively connected. For others, they seem like awkward fits or even contradictions, distant and miles apart.

In sum, research suggests that religion is likely to affect perceptions and behavior as well as the ability and motivation to perform work, but effects vary as adherents sometimes struggle to link work and faith in thought and practice. Based on these findings, we hypothesize that:

H1a: Work and faith are moderately integrated for Christians.

In an early study of work-faith integration, Davidson and Caddell (1994: 145) found that religious affiliation was a weak predictor of viewing work as a calling:

... when religion is internalized, it causes some people who are already inclined to think of work as important to take the additional step of viewing it as a calling, not just a career. Among people who are already receiving significant rewards at work, intrinsic religiosity often fosters a religious view of work as part of one's ministry.

Mockabee et al. (2001: 686–7) found similar effects regarding politics: 'it is the interaction of religious affiliation – belonging to a religious group – and religious commitment – holding to certain beliefs and practices – that affects political behavior and attitudes.' Reasoning that work-faith integration is associated with personal commitment to religion and that particular dimensions of work-faith integration are indicative of integration's potency, we expect that:

H1b: Individuals demonstrating high work-faith integration will display different integration patterns than those with low work-faith integration.

Given that work and faith generally are integrated for Christians, the extent of integration may vary according to variables related to ability, intent, and opportunity.

Ability

The ability individuals have to integrate work and faith may be affected by variables such as age, gender, pay, denominational group membership, and formative influences.

Age Although research is divided about the consistency of religious belief over time (e.g. Noffke and McFadden, 2001; Wink and Dillon, 2002), most research suggests that individuals who were religious in their youth or early adulthood tend to maintain or increase their relative religiosity as they age (Argue et al., 1999; Hamberg, 1991; McCullough et al., 2005; Moberg, 2005). Those who are relatively religious, remain so; those who are not religious, generally remain not. Feenstra and Brouwer (2008) demonstrated that identity development and vocational development occur in youth and early adulthood, suggesting that vocational and religious identities may become clearer and more integrated as individuals age. Over time, individuals may have more opportunities to reflect on the intersection of work and faith as their identities form. Based on this notion, we expect to find that:

H2a: Age is positively associated with work-faith integration.

Gender Considerable research on gender and religion suggests that women are more religious than men (Beit-Hallahmi, 2004; Benson et al., 1993). Several theoretical explanations exist for these differences including gender role socialization, biological influences, and individual psychological characteristics (Bradshaw and Ellison, 2009; Francis, 1997). Ardel (2009), however, found no evidence that women are more self-reflective than men. We will not attempt to address the reasons behind differences in religiosity between the sexes, but we will follow the research evidence in suspecting that women are more religious than men and thus demonstrate stronger work-faith integration:

H2b: Women demonstrate stronger work-faith integration than do men.

Pay Unpaid work may be perceived as an act of service for others and likewise find meaning in its voluntary provision (Unger, 1991). Smith and her colleagues (2006: 25) found that non-profit arts managers utilize a 'spiritual framework of calling, service, sacrifice, and personal rewards to socially construct, understand, and legitimate their nonprofit careers.' In some cases, voluntary tasks may not occupy as much time as full-time paid work – with some notable exceptions such as child rearing and serial volunteering – allowing additional reflection on work and faith integration. Based on this reasoning, we posit that:

H2c: Unpaid work is positively related to work-faith integration.

Denominational groups Several writers have suggested that differences in work-faith integration styles are likely to exist because of differing degrees of integration (e.g. Van Loon, 2000), or particular emphases in belief. Miller (2007), for example, describes four theoretical work-faith emphases of: ethics (personal virtue, business ethics, and social and economic justice); evangelism; experience (vocation and calling, meaning and purpose); and enrichment (healing, transformation, and self-actualization). Those arguing for differences in emphases often reason that workplace faith styles vary according to the theologies of various denominational groups (e.g. Catholic, Pentecostal, Anabaptist) that are reinforced in teaching and practice (e.g. Noffke and McFadden, 2001). Accordingly, we anticipate that different work-faith integration styles will be evident across denominational groups:

H2d: Denominational groups will differ in their emphases in work-faith integration.

Formative influences While faith development generally has received considerable theoretical attention (Fowler, 2000), few studies have investigated the development of faith at work. Possible formative interpersonal and personal influences include mentors, family members, worship, and the study of sacred texts, among others (O'Connor et al., 2002). The theoretical literature offers few specific clues to suggest which of these will be salient, but we suspect that influences occurring over a relatively long period of time will tend to be influential on work-faith integration development (Mochon et al., 2008):

H2e: Long-term influences affect work-faith integration more than relatively brief influences.

Intent

At least three variables may influence the intent of Christians to engage in work-faith integration: Church attendance, denominational strictness, and faith maturity.

Church attendance Engagement with a religious community exposes individuals to religious teaching and networks that can enhance socialization. Mochon and colleagues (2008) and Francis and Kaldor (2002) found that perceived well-being is enhanced by attendance at religious services. The former argued that church attendance makes nearly imperceptible enhancements in perceived well-being week-by-week, with significant effects becoming apparent over time. Church attendance increases the likelihood of religious and social support and a sense of God-mediated control in stressful situations (Bradley, 1995; Ellison and George, 1994; Krause, 2007). Additionally, Nooney and Woodrum (2002) found that public religious behavior reinforced and enhanced private religious behavior, or perceived role expectations. A more committed person may be more strongly inclined to integrate faith at work. Therefore:

H3a: Religious community engagement is positively associated with work-faith integration.

Denominational strictness Several studies suggest that organizational expectations increase membership commitment. More specifically, a denomination's strictness causes members to make more intentional choices about membership and increases sectarian boundaries (Barros and Garoupa, 2002; Noffke and McFadden, 2001; Olsen and Perl, 2001; cf. Wellman, 2002 for an exception). According to Iannaccone (1994: 183):

Strict demands 'strengthen' a church in three ways: they raise overall levels of commitment, they increase average rates of participation, and they enhance the net benefits of membership. These strengths arise because strictness mitigates free-rider problems that otherwise lead to low levels of member commitment and participation.

Following this argument, we anticipate that:

H3b: Adherents of strict denominations will demonstrate stronger work-faith integration than will members of less strict denominations.

Faith maturity Benson and his colleagues (1993: 3) found that faith maturity, or 'the degree to which a person embodies the priorities, commitments, and perspectives characteristic of vibrant and life-transforming faith', was stronger among conservative Protestants than liberal Protestants. Faith maturity may correlate with a greater quantity and quality of personal reflection, leading to deeper and more sustained reflection and interest on the part of religious adherents to strive for integrity with certain religious norms and values. We suspect, therefore, that:

H3c: Faith maturity is positively associated with work-faith integration.

Opportunity

The opportunity individuals have to integrate work and faith may be affected by the broader culture in which they work as well as by the immediate work setting. We consider in the first case, geographical salience, and in the second case, professional status, working hours, and the size of the employing organization.

Geographical salience Individual religiosity may be influenced by salience – the prevalence of religiosity in the geographical region. Ploch and Hastings (1998) found that regional church attendance rates were a stronger predictor of church attendance than was parental church affiliation. Similarly, Stump (1984) found that individuals relocating within the United States tended to adjust their church attendance patterns to fit the region where they relocated. Although a free-rider view would suggest that commitment diminishes when the cost of being religious is low, salience may positively impact work-faith integration if it allows for a more accepting climate of religious expression at work (Lips-Wiersma and Mills, 2002). More broadly, cultures influenced by religion shape cognition and behavior irrespective of personal religiosity (Niles, 1999; Parboteeah et al., 2009). Thus:

H4a: Geographical salience is positively related to work-faith integration.

Professional status Davidson and Caddell (1994) found that religious individuals were more inclined to view desirable jobs as a calling and see their work through a religious lens than were religious individuals with less desirable jobs. Additionally, professional autonomy may promote increased discretion in ethical and moral arenas (Donaldson, 2000). Professional work is generally more varied than blue-collar work, containing complex tasks that allow for creativity and problem-solving (Hu et al., 2010; Humphrey et al., 2007). On the other hand, professional work may yield little time to reflect on faith and work. Religious persons in a position of influence or working in a pluralistic setting may conceal personal views on religion from co-workers to maintain an egalitarian work environment, and work-faith integration and religion's coping and transcendent dimensions can be practiced without public acknowledgement. Although there is little clear theoretical guidance on this issue, we predict that overall:

H4b: Professional status is positively associated with work-faith integration.

Working hours Long hours at work may lessen religious community involvement and allow few opportunities for work-faith reflection. Although the stress of long working hours may increase the meaning and coping benefits that religion can provide (Grant et al., 2004), we suspect that excessive working hours will tend to decrease opportunities for reflection. Thus:

H4c: Working hours are negatively associated with work-faith integration.

Organizational size As organizations grow in size they tend to develop their own collective meaning structures, sometimes through the intentional shaping of corporate culture maintained via routine, structural, and cognitive cultural carriers (Kondra and Hurst, 2009; Pedersen and Dobbin, 2006). As systems of meaning, organizational culture can serve as an interpretive schema for meaning that may displace personal interpretative schemas. Additionally, some researchers argue that large organizations tend to offer extrinsic rewards to compensate for jobs with limited autonomy and routinized tasks. Small firms don't have to offer these benefits for their more socially rewarding work (Hodson and Sullivan, 1985). Since perceived work desirability appears to impact work-faith integration (Davidson and Caddell, 1994; Grant et al., 2004; Sullivan, 2006) we hypothesize that:

H4d: Organization size is negatively associated with work-faith integration.

Methods

Sample

A stratified random sample of business school alumni was collected between 2007 and 2009 from five higher education institutions in the United States. Sampling was stratified by the decade of last attendance between 2005 and 1958. This time frame was selected to eliminate alumni with little post-baccalaureate experience and those who

were of traditional retirement age. A total of 1809 alumni were contacted and 412 individuals responded yielding a response rate of 22.7 percent. Surveys from respondents indicating no religious affiliation, a religious affiliation other than Christianity, an international domicile, or retirement, and surveys with substantially missing data were removed from the sample ($n = 40$ or 9.7% of the respondents), leaving a final sample of 372 respondents.

The higher education institutions represented Roman Catholic, Mormon, evangelical Protestant, and mainline Protestant traditions. Evangelical Protestant denominations include – among others – Reformed, Church of Christ, Mennonite, and Southern Baptist. Mainline Protestant denominations include Anglican/Episcopal, Disciples of Christ, Evangelical Lutheran, and United Methodist.

Students at conservative religious campuses generally participate in religious activities significantly more than do students attending Catholic or liberal Protestant institutions, but they also struggle more with their faith. Christian students who attend secular state-supported schools and who face challenges to their faith often struggle as well and increase their religious identity and commitment (Hammond and Hunter, 1984; Hill, 2009; Hyers and Hyers, 2008). An alumni sample from diverse faith-related institutions provides convenient access to large numbers of Christian workers who likely reflect diverse levels of religiosity.

Variables and measures

Variables and measures used in the study are detailed in Table 1. The dependent variable was work-faith integration measured by the Faith at Work Scale (FWS) (Lynn et al., 2009) (see Table 2), a 15-item scale that exhibits a single factor structure (Eigenvalue = 8.88; variance accounted for = 59.22%) and internal consistency (Cronbach's $\alpha = 0.77$). The FWS is specifically designed to target the integration of Christian faith and work. Independent variables in the study included: faith maturity as measured by the Donahue short form of the Faith Maturity Scale (FMS) (Benson, et al., 1993; Piedmont and Nelson, 2001); geographical salience as measured by church attendance prevalence within the state (Newport, 2006); strictness as classified by denominational affiliation (cf. Baylor Institute for Studies in Religion, 2006); and various self-reported demographic, occupational, and religiosity items. Respondents were asked to rate perceived influences on workplace faith development as well.

Results

Sample

Respondents represented a broad range of ages, occupations, industries, and denominational affiliations. Slightly more than one-third of the sample was female (37.7%). The proportion of ethnic minority respondents was very small (5.1%). The sample was geographically dispersed with the largest segments living in mid-western (26.3%), northeastern (25.5%), and southwestern (23.6%) regions of the US. The median age was 36 with a range from 22 to 71 years. Although stratified, younger

Table I Variable descriptions

Variable	Measures
Dependent	
Faith at Work Scale	Means of individual items and the Faith at Work Scale (FWS) (Lynn et al., 2009) using a 5-point Likert format. Scores can range from a low of 15 to a high of 75. When used in logistic regression, we recoded scores into statistical quartiles.
Independent	
Age	Age in years.
Church attendance	The reported frequency of religious service attendance: Less than once a year; once or twice a year; several times a year; once a month; 2-3 times a month; once a week; more than once a week; coded as 1 to 7. When used in logistic regression, we recoded these data to indicate whether the respondent reported attending religious services at least once a week.
Faith maturity	Total score on the Donahue short form of the Faith Maturity Scale (FMS) (Benson et al., 1993); 5-point Likert format.
Gender	Male or female.
Hours worked	Number of hours worked per week including: Less than 40; 40-49; 50-59; and 60 or more. When used in logistic regression, we recoded these data according to whether the respondent reported working at least 50 hours per week.
Pay	Paid, volunteer, retired, or other. When used in logistic regression, we recoded these data according to whether the respondent was paid.
Professional status	Employment as executives, managers, or professionals were coded as 'professional'.
Organizational size	The number of people employed by the organization, specifically: Fewer than 20; 20-99; 100-249; 250-999; 1000-10,000; and more than 10,000, coded 1 through 6. When used in logistic regression, we recoded these data according to whether the organization employed at least 1000 individuals.
Geographical salience	The percentage of respondents in each state who reported attending church services weekly or almost weekly (Newport, 2006).
Denominational strictness	Evangelical Protestants and Mormons were coded as strict; Catholics and mainline Protestants were coded as less strict.
Other	
Denominational groups	Catholic, Protestant, Orthodox, Mormon, Jewish, and other affiliations were offered in a menu. Evangelical and mainline designations were derived by the authors from a follow-up question to Protestant respondents about congregational affiliation (Baylor Institute for Studies of Religion, 2006).
Influences	Estimates of the degree of influence (little to no impact to huge impact) for 11 possible influences; 5-point Likert format.

respondents outnumbered older ones with the majority of respondents (80%) being under 50 years old. Contact information at some of the institutions was sparse for alumni over age 50.

Table 2 Faith at Work Scale dimensions and items

Abbreviation	
Aware	I sense God's presence while I work
Partnering	I view my work as a partnership with God
Meaningful	I think of my work as having eternal significance
Integrated	I see connections between my worship and my work
Coping	My faith helps me deal with difficult work relationships
Called	I view my work as a mission from God
Equipped	I sense that God empowers me to do good things at work
Diligent	I pursue excellence in my work because of my faith
Growing	I believe God wants me to develop my abilities and talents at work
Accepting	I view my coworkers as being made in the image of God
Witnessing	My coworkers know I am a person of faith
Caring	I sacrificially love the people I work with
Moral	When I am with others and alone, I practice purity in my work habits
Just	I view my work as part of God's plan to care for the needs of people
Stewarding	I view myself as a caretaker not an owner of my money, time and resources

Most respondents (89.2%) worked as paid employees and did so for at least 40 hours per week. About a quarter (26.8%) worked for organizations that employed twenty or fewer employees, and a third (33%) worked in firms of 1,000 or more. Respondents worked in over 20 industries with approximately half being employed in financial activities or insurance (22.7%), education (10.1%), manufacturing (9.28%), and health and social services (8.9%). Most were employed in white-collar positions with 82.6 percent in professional or managerial roles. In terms of religious affiliation, 62.4 percent were identified as evangelical Protestants and the remainder was constituted by relatively equal proportions of Catholics (13.1%), Mormons (13.1%), and mainline Protestants (11.4%). Although self-reported church attendance is often inflated (Chaves and Cavendish, 1994), over two-thirds (73.7%) reported attending church services at least once a week; only 5.9 percent reported attending twice a year or less.

Data coding and testing

Since the dependent variable and several independent variables were measured on an ordinal (Likert) rather than interval scale, we used ordinal logistic regression to test most relationships (Agresti, 2010). To reduce measurement noise and insure equal intervals between ordinal points, we recoded FWS scores into statistical quartiles, and recoded attendance, hours worked, and organizational size into dummy variables (Table 1). We tested for equal variances between intervals for the Faith Maturity Scale and found evidence for such so did not recode these data. Before recoding variables we tested for multicollinearity. Although some independent variables were related, variance inflation factor scores (VIFs) were well beneath the common cutoff of 4.0, indicating multicollinearity was not a concern (Table 3).

Table 3 Partial intercorrelation matrix and variance inflation factors of independent variables

Measure/Item	Correlation coefficients										VIF
	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)		
(1) Age	.212 ^{***}	.278 ^{***}	.146 ^{***}	.113 [*]	-.073	.054	.032	.149 ^{***}	-.139 ^{***}	1.188	
(2) Gender		.058	.062	.030	.117 [*]	.156 ^{**}	.065	.089	.013	1.106	
(3) Church attendance			.224 ^{***}	.449 ^{***}	-.055	-.045	-.036	.055	-.101	1.611	
(4) Denominational strictness				.112 [*]	.007	-.029	.026	.029	-.094	1.081	
(5) Faith maturity					.023	-.111 [*]	.033	.048	-.180 ^{***}	1.500	
(6) Hours worked						-.071	.011	-.029	.040	1.050	
(7) Pay							-.023	-.053	.115 [*]	1.118	
(8) Professional status								.034	.097	1.028	
(9) Geographical salience									-.130 [*]	1.055	
(10) Organizational size										1.194	

*p ≤ 0.05; **p ≤ 0.01; ***p ≤ 0.001
 n = 334–367 (cases with missing data removed pairwise)

Work-faith integration

The overall Faith at Work Scale (FWS) mean was 55.13 (SD = 12.06) out of a possible range of 15–75, indicating that work and faith were integrated at the 67th percentile. This supports H1a suggesting that work and faith are moderately integrated. To test for possible differences in FWS scores between high- and low-integration groups (H1b), we first grouped FWS items using hierarchical cluster analysis (HCA) (Figure 1). We divided the cluster tree at a three branch solution. The first branch grouped items related to a worker's relationship with the transcendent (Aware, Partnering, Integrated, Meaningful, and Called). We labeled this the God cluster. The second branch grouped items dealing with the Self (Coping, Growing, Equipped, Diligent, Witnessing, and Moral). The third focused on relationships with Others (Just, Stewarding, Accepting, and Caring). Next, we selected FWS scores above (FWS \geq 67, $n = 61$) and beneath (FWS \leq 43, $n = 63$) the mean score (FWS = 55) by one standard deviation. The FWS high scoring group demonstrated relatively consistent means across the three clusters (Self = 4.86; Other = 4.67; God = 4.61) while the low scoring group demonstrated a decline across clusters (Self = 2.90; Other = 2.39; God = 1.83). The groups differed significantly on each cluster as indicated by Kolmogorov-Smirnov two-sample tests (Self: $D = 5.46$, $\alpha \leq .001$; Other: $D = 5.55$, $\alpha \leq .001$; God: $D = 5.48$, $\alpha \leq .001$). These results support H1b, confirming that individuals with high work-faith integration display differing patterns from individuals with relatively low work-faith integration.

Independent variables

We used single variable ordinal logistic regression to test relationships between FWS scores and independent variables (Table 4). Six variables were positively related to work-faith integration: Age ($z = 3.23$, $p \leq .001$), church attendance ($z = 8.87$, $p \leq .001$), denominational strictness ($z = 2.14$, $p \leq .05$), and faith maturity ($z = 11.85$, $p \leq .001$). Two variables were negatively related: Pay ($z = -3.90$, $p \leq .001$) and organizational size ($z = -4.13$, $p \leq .001$). Each of these was in the direction hypothesized. No significant relationships were detected for gender, hours worked, professional status, or geographical salience.

We loaded independent variables in a full regression model to measure the combined ability of the variables to explain work-faith integration. In the full model, the variables tested in single variable regressions remained significant except for pay. The overall fit of the full model was strong ($X^2 = 278.29$; $r^2 = 0.749$) with 74.9% of the variance in FWS scores explained by the independent variables. When variables were entered stepwise, the model retained the same five variables significant in the full model along with the full model's explanatory power ($X^2 = 273.21$; $r^2 = 0.742$). Thus, hypotheses for age (H2a), church attendance (H3a), denominational strictness (H3b), faith maturity (H3c), and organizational size (H4d) were supported; those for gender (H2b), geographical salience (H4a), professional status (H4b), and working hours (H4c) were not. Pay (H2c) was supported when tested alone but not when entered into the full or stepwise models.

Integration styles

To test for differences in work-faith integration styles (H2d), we examined FWS scores by denominational groups, grouping respondents as Catholic, evangelical

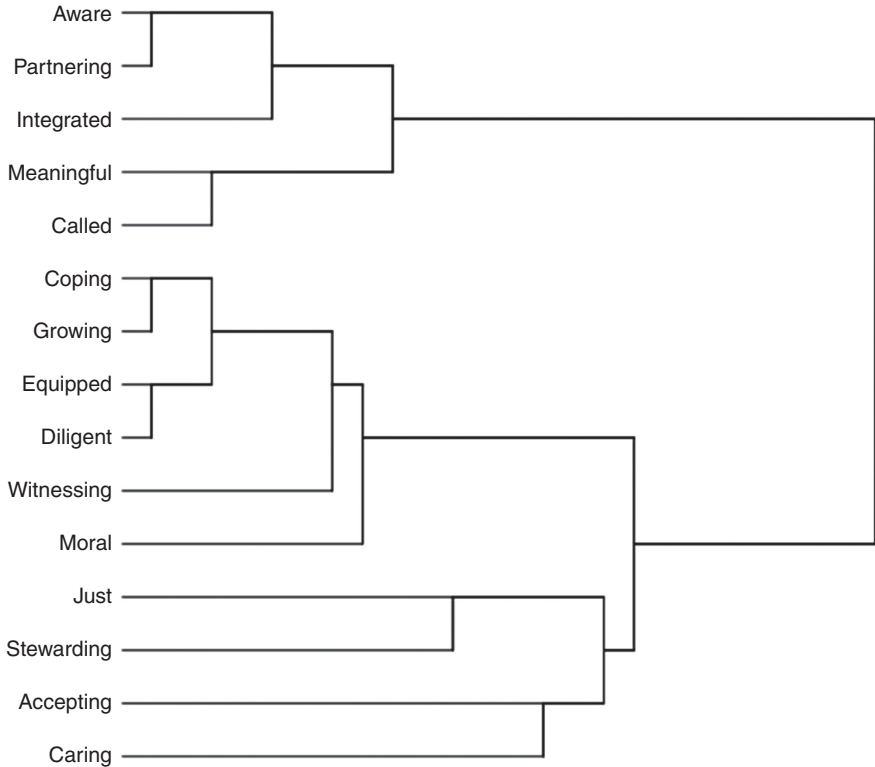


Figure 1 Hierarchical cluster analysis of Faith at Work Scale items

Note: Average linkage between groups cluster method using squared Euclidean distance

Protestant, mainline Protestant, or Mormon. We used two approaches in the analysis. First, we compared item and total FWS means across the four groups using a Kruskal-Wallis test. Although groups differed on each item and across total FWS means ($H = 14.066$, $df = 3$, $p = .003$), a visual comparison suggested that these differences were in extent rather than emphasis (Figure 2). Differences narrowed for the four denominational groups on two FWS items – ‘Called’ or seeing one’s work as a mission from God, and ‘Caring’ or sacrificially loving one’s co-workers – but generally the four denominational groups reported similar patterns. The highest or near-highest point for all four groups was ‘Growing’.

Because differences across groups might be magnified if similar items were grouped together, we performed a second analysis using the God, Self, and Others clusters obtained from the hierarchical cluster analysis of FWS items (Figure 1). Scores were significantly different across denominational groups, but the combined variance of the clusters still did not reach significance. The Self cluster was highest across all four groups (FWS range = 4.51–3.38); the Others cluster was second (FWS range = 3.86–2.96); and the God cluster was third (FWS range = 3.40–2.52). Mormons averaged the highest on most items and clusters, followed by evangelical Protestants, mainline Protestants, and

Table 4 Ordinal logistic regression for Faith at Work Scale scores and independent variables

Variable	Single variable ^a			Full model ^b			Stepwise model		
	β	se	z	β	se	z	β	se	z
Ability									
Age	.026	.008	3.23 ^{***}	.036	.012	2.19 [*]	.028	.011	2.50 [*]
Gender	.147	.200	.74	-.043	.288	-.15			
Intent									
Church attendance	2.462	.278	8.87 ^{***}	1.579	.368	4.30 ^{***}	1.529	.363	4.21 ^{***}
Denominational strictness	.490	.229	2.14 [*]	1.208	.414	2.92 ^{**}	1.183	.408	2.90 ^{**}
Faith maturity	.357	.030	11.85 ^{***}	.372	.036	10.25 ^{***}	.370	.036	10.32 ^{***}
Opportunity									
Hours worked	.203	.217	.94	.200	.298	.67			
Pay	-1.317	.338	-3.90 ^{***}	-.866	.582	-1.49			
Professional status	-.011	.331	-.03	.081	.436	.19			
Geographical salience	.034	.018	1.85	.031	.023	1.34			
Organizational size	-.860	.208	-4.13 ^{***}	-.669	.286	-2.34 [*]	-.730	.281	-2.60 ^{**}
Overall fit					278.29 ^{***}			273.21 ^{***}	
X ²					.749			.742	
R ²									

*p ≤ 0.05; **p ≤ 0.01; ***p ≤ 0.001

^aModel: $\ln(\theta) = \alpha_j - \beta X$

^bModel: $\ln(\theta) = \alpha_j - \beta_1 X_1 + \beta_2 X_2 + \dots + \beta_k X_k$
 n = 262 (cases with missing data removed listwise)

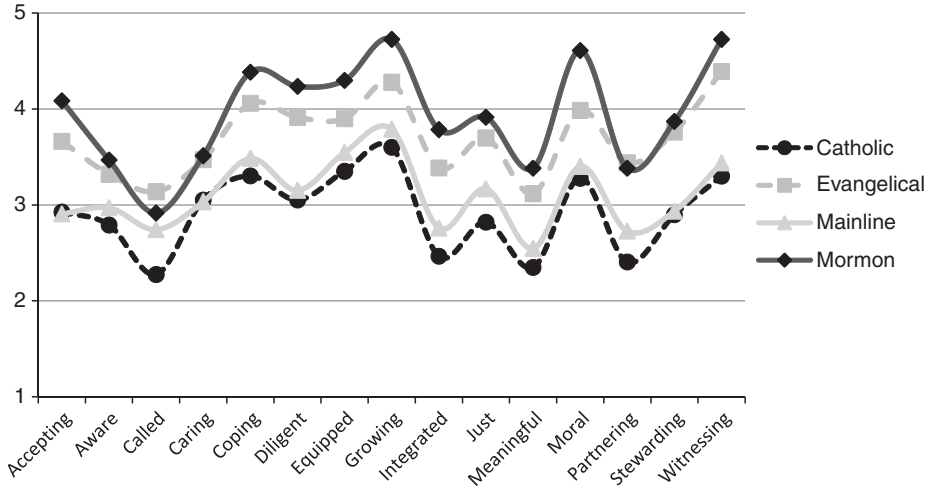


Figure 2 Faith at Work Scale means by denominational cohort

Catholics. The hypothesis (H2d) that denominational groups differ in their style of integration was not supported.

Integration influences

Finally, we tested influences on work-faith integration (H2e), inquiring about the perceived impact of eleven possible influences. Once again we used ordinal logistic regression to regress FWS scores against perceived influences (Table 5). In the full model, sermons impacted work-faith integration positively and college courses in religion did so negatively. Spiritual disciplines had a positive impact. When entered stepwise, two influences achieved significance: Spiritual disciplines – which include practices such as prayer, meditation, and religious reading – and workplace mentors and role models. Each of these might constitute sustained influences in accord with H2e, but other sustained influences (e.g. sermons and family members) did not reach significance. Thus, H2e was partially supported. Missing data on this test resulted in a small sample for analysis.

Discussion

The purpose of this research was to explore work-faith integration among Christians. As one of the first survey studies in this area, several findings are noteworthy.

Extent

As indicated by the FWS mean score, Christians in our study integrated work and faith to a moderate degree (67th percentile). Individuals who scored relatively high on the FWS demonstrated fairly consistent integration across Self, Others, and God item clusters in

Table 5 Ordinal logistic regression for Faith at Work Scale scores and influences

Influence	Full model			Stepwise model		
	β	s.e.	z	β	s.e.	z
Sermons and classes at my place of worship	.846	.431	1.96*			
College courses in my major	.682	.579	1.18			
College courses in religion	-1.258	.614	-2.05*			
Personal reading and study	-1.282	.805	-1.59			
Spiritual disciplines such as prayer, study and meditation	1.364	.705	1.93*	1.564	.583	2.68**
Company or industry workshops, training, and retreats	.198	.452	.44			
Faith-related small groups	1.042	.565	1.84			
College faculty and staff as mentors and role models	.228	.482	.47			
Pastors and church leaders as mentors and role models	.620	.763	.81			
Spouse, parents, or other family as mentors and role models	.750	.873	.86			
Non-family members in the workplace as mentors and role models	.776	.485	1.60	.883	.390	2.26*
Overall fit		31.04***			16.16***	
X^2		.673			.461	
R^2						

* $p \leq 0.05$; ** $p \leq 0.01$; *** $p \leq 0.001$

Model: $\ln(\theta) = \alpha_0 - \beta_1 X_1 + \beta_2 X_2 + \dots + \beta_k X_k$
 $n = 47$ (cases with missing data removed listwise)

contrast to individuals with relatively low integration scores who scored progressively lower on Self, Others, and God items. While no comparison group to this study is available, these findings counter popular literature that suggests that work and faith are disconnected for Christians; to the contrary, it continues a long historical quest to mesh the two (Miller, 2007), albeit with partial success, and it underscores the potency of religion, especially for committed adherents (Pargament et al., 2005).

Intent, ability, and opportunity

Work-faith integration appears to be most strongly associated with intent. Integration is stronger for individuals with deep faith maturity, those who attend religious services frequently, and those who are members of strict denominations. Although these variables significantly impact integration individually, they are strongly interrelated and may reinforce one another (see Table 4). These variables may be associated with intrinsic religious commitment or other influences (Gorsuch, 1994), but they are unlikely to occur without intentionality and internalization. These findings are consistent with those of Davidson and Caddell (1994) who found personal religious commitment to be the strongest predictor of work-faith integration. This does not suggest that desire is all that is needed for work-faith integration to occur – recall the nurses and low-paid service workers who struggled to connect work and faith (Grant et al., 2004; Sullivan, 2006). But it appears that work-faith integration is less likely to occur without intent.

Ability variables appear to be moderately associated with work-faith integration. First, integration increases with age. Our findings are consistent with other studies showing a rise of religiosity across ages (McCullough et al., 2005; Moberg, 2005). Because our data is cross-sectional, we cannot conclude that individuals increase in work-faith integration over time. But we can conclude that work and faith are increasingly integrated for older workers. Despite stratified sampling, evangelical Protestants were more represented among respondents age fifty and older. This sampling bias may contribute to the statistical rise in integration among older workers but is unlikely to account for all of it since high-scoring Mormons were not represented in this group, and Catholics and mainline Protestants were, just in smaller proportions.

Work-faith integration was unrelated to gender in the present study. Research that indicates that women figure more prominently than men among religious adherents is less relevant here since our inquiry was not directed toward the population at large but Christian workers. Within that group, even if research suggests that women demonstrate greater religiosity, women and men did not differ in their overall degree of work-faith integration. We tested for differences in FWS mean scores; whether gender differences exist in particular aspects or influences of integration has yet to be examined.

Pay was significant when tested alone but dropped out of the stepwise model owing to its relatively high standard error term. Because of the small number of respondents who identified themselves as volunteers, it is premature to dismiss pay as an insignificant influence in work-faith integration.

Finally, in terms of independent variables, opportunity appears to have a weak association with integration – only organizational size was related (negatively) to work-faith integration. Recall that the FWS items largely address how a worker views and treats

work and others, rather than whether they engage in religious conversation which appears to be regulated by different variables (Lips-Wiersma and Mills, 2002; Mickelson and Hesse, 2009). At least three factors may contribute to the impact of organization size on work-faith integration. First, formal or distant relationships may moderate the degree to which individuals can practice work-faith integration. If employees don't have close relationships, they may not be able to view or interact with others in as meaningful a way as they can in smaller organizations. Second, job characteristics may contribute to work-faith integration. As previously cited, work desirability appears to increase work-faith integration (Davidson and Caddell, 1994; Grant et al., 2004; Sullivan, 2006) and is higher in small organizations (Bender et al., 2005). Thus, the nature of the work itself may impact whether faith is easily integrated. Third, corporate culture in large organizations may serve as a meaning system (Kondra and Hurst, 2009; Pedersen and Dobbin, 2006). It is also possible that size is an artifact. Fewer older workers who tend to exhibit relatively high work-faith integration were employed in large firms in our study.

The absence of significance for several variables is noteworthy. That hours worked was not a significant contributor to the opportunity to integrate work and faith suggests that integration may be maintained regardless of demanding or light work schedules. That professional work status did not significantly impact integration may suggest that the expectations of professionalism and autonomy cancel each other out, or that forms of work in general do not obstruct integration. That geographical salience was not a significant factor may suggest that salience increases freedom to express religiosity but at the same time, reduces commitment to do so. It may also be that effects exist at finer levels of analysis. For example, small market-share groups such as Lutherans in Alabama may identify themselves as religious minorities even if state-wide church attendance rates are relatively high (Hill and Olson, 2009), and large market-share denominations may tend to attract low commitment members who enjoy participation benefits with minimal contributions of time or money (Brewer et al., 2006). These suppositions deserve additional exploration. The larger point in the present study is that work-faith integration largely appears to be a democratic process – that is, it is governed more by intent and time than by ability or opportunity. The dampening effect of organizational size and pay on work-faith integration hints that job characteristics and the work setting may play a secondary role.

Work-faith integration styles

A finding that differs from expectations is that denominational groups do not appear to exhibit differing patterns in work-faith integration. Previous research identified differences in single dimensions such as attitudes toward business ethics among evangelical Protestants and Catholics (e.g. Longenecker et al., 2004), but single dimension studies cannot identify broad integration patterns across the theological spectrum. The lack of differences across denominational groups is surprising since these groups differ substantially in theology. Two explanations may be proffered for this finding.

First, a paucity of unique theological perspectives on workplace faith may result in a relatively uniform treatment of ethics such as honesty, fairness, justice, and compassion. Or, Yamane (2007) argues that adherents often differ from one another in ways that

don't follow official denominational teachings. Practiced rather than taught belief may be a more direct route to understanding adherents who differ in belief or behavior. If this is the case, religious workers of differing denominations may find that they have more in common with others than belief systems might suggest. Related to this is the finding that greater variance is accounted for by the internalization of belief than by external indicators such as denominational affiliation or adherence (Davidson and Caddell, 1994).

Self, others, and transcendence

For all denominational groups, FWS items centering on the self demonstrate the highest means; items addressing relationships with others are second and items addressing transcendent aspects of work are third. This ordering and the emphasis on self, contrasts with the themes of transcendence and connectedness emphasized in the workplace spirituality literature (Sass, 2000). At least three explanations can be offered for this ordering. First, being diligent, equipped, and moral may resonate as a form of civil religion identifying faith as ultimately equivalent to 'being good'. A religion with a significant personal moral and ethical core may be reinforced by the moral and religious instruction respondents received in their religious colleges, and by a general cultural endorsement of personal characteristics such as hard work, progress, and honesty. This explanation mirrors findings by Smith and Denton (2005) who found a widespread image of God as one who watches the world and wants all to be good; yet beyond this generality, the specifics of a tradition or knowledge of a tradition do not significantly penetrate the complexities of organizational life. Additionally, fewer emotional and physical resources may be required to be honest and hard working than to be aware of transcendence in work. It should be noted that high FWS scoring respondents tended to have relatively consistent Self, Others, and God scores; when integration is relatively weak, Others and God scores drop off but Self scores remain relatively high. These high- and low-integration groups are segments deserving of additional study.

Developmental influences

Respondents were asked to evaluate the perceived impact of several developmental influences on work-faith integration. Among these, spiritual disciplines such as contemplation and scripture reading were significant and are suggestive of the importance of intent. Spiritual disciplines expose the adherent to ongoing, gradual change, similar to the impact of religious service attendance (Mochon et al., 2008). Also significant were non-family workplace mentors that suggest the value of contextualized development transferable in the work setting. Sermons may be broad enough to be applicable to work but their distance from workplace particularities is a possible explanation why they dropped out of the stepwise analysis (Table 5). These results are consistent with Davidson and Caddell (1994) who found that pastoral influence and sermons had no significant impact on viewing work as a calling. Again, the salience of intent and internalization are underscored in work-faith integration.

The lack of positive influence of religiously based universities upon work-faith integration is striking. All the participants of the survey were alumni of faith-based colleges and universities, yet college faculty as role models and business courses were not perceived as significant impacts on work-faith integration, and college courses in religion had a significantly negative impact. Again, numerous explanations may be proffered. Some relate to a dearth in work-faith integrated teaching owing to: the secularization of religiously-based universities; the specialization of academic disciplines resulting in a division between Christian theology and work; differences in perspective between business and religion faculties – the former being less positive toward business values than the latter; faculty role definitions that discourage theological formation as academically legitimate; and a lack of comfort knowing how to integrate theology with business disciplines (Naughton et al., 1996).

Another explanation of education's weak impact has to do with the possible diffusion of effects across diverse institutions. Catholic, evangelical Protestant, mainline Protestant, and other higher education traditions differ in their impact on student religiosity (Hill, 2009). Differential effects owing to institutional type may have been masked in our study because data were aggregated. A third explanation has to do with the limited time adherents were exposed to college influences. Academic instruction may lack a strong connection to diverse workplace praxis and, for many, may be too distant in memory or time to be salient – respondents exited higher education up to 50 years previously. Educational approaches to faith integration have evolved over time, as have religious communities and their social contexts.

Many questions remain about higher education's impact on work-faith integration (cf. Mayrl and Oeur, 2009). Although missing data resulted in a small sample addressing developmental influences, the data generally suggest that work-faith integration deepens through intentional, longitudinal, and relational influences that are immediately transferable to the work setting. These findings should be treated as tentative, however, because of the limited data on these questions.

Implications for managing and organizing

Understanding the impact of particular belief systems on work complements management and organizational thought and practice. Workplace spirituality scholarship has argued – and the present study shows – that people bring their entire selves to work. This study suggests that work-faith integration not only affects individuals in interior ways, it also impacts their actions toward others, actions often shared with positive psychology (Youssef and Luthans, 2007). The identification of consistent integration patterns across many industry, occupation, denomination, and demographic groups suggests that commonalities in perception, attitudes, and behavior may exist when faith integration is strong.

Religion's role in the workplace may spark novel organizational ideas or add further confirmation of organizational processes, such as discernment and leadership (Delbecq et al., 2004), virtue as a basis for organizational and management practice (Dyck and Wong, 2010), or spiritual disciplines and workplace mentors as tacit management learning (Armstrong and Mahmud, 2008). Understanding the interplay of religion and work can

extend understanding of global cultures where rich religious and non-religious meaning systems are at work (Hodson, 2001), or to consider the possibility of global civil society generally (Juergensmeyer, 2005).

Limitations and future research

The findings and limitations of our study suggest several possible directions for research. Workers in the present study indicated moderate work-faith integration, but as has been demonstrated with the Protestant work ethic and vocational callings, beliefs and practices traditionally associated with religion may not be unique to religious adherents (Arslan, 2001; Steger et al., 2010). Thus, replicating the study with non-religious and non-Christian individuals would provide insight on unique and shared qualities of Christian workers. Few ethnic minority respondents were included in our study, yet ethnic differences exist in work and faith combinations (Aoki, 2000). Expanding the sample to reflect more ethnic diversity would be desirable. The relationship of higher education to religious belief and practice could be further explored since institutions can differ considerably (Glaeser and Sacerdote, 2008).

Research into religious pluralism (Hicks, 2003; Juergensmeyer, 2005; King et al., 2009) raises several questions, including: whether preferential status and unofficial privilege is extended to majority secular or religious adherents in some contexts and whether certain belief systems are marginalized in others; how functional religious pluralism is achieved and maintained within organizations; how beliefs and practices overlap or differentially impact individual and organizational work processes and outcomes; and how religion furthers or impedes globalization. Ethnographic or interview-based investigation might provide insights into these potentially rich lines of study (e.g. Grant et al., 2004; Sullivan, 2006).

Consonant with other research, the present study underscored the association of personal religious commitment with work-faith integration. Since spiritual transformation frequently emerges from challenges (Smith, 2006), exploring the relationship of religion in coping with work stress could be promising (Pargament et al., 2005).

A natural extension of the present study is to ask what consequences work-faith integration has on individual, interpersonal, and organizational outcomes, as has been done in workplace spirituality research (Karakas, 2009; Kolodinsky et al., 2008). If a divide exists between one's faith and one's work life, is well-being or identity affected? Does integrated workplace faith alter social relationships or impact individual or organizational outcomes? Lanfer (2006) argues that religious faith moves workers from being focused on personal happiness to being increasingly concerned with the well-being of others and society – a mental model shift from being concerned with personal gain to social responsibility. Does this indeed occur?

Finally, work-faith integration theory is needed to interpret the empirical relationships among variables. Although workplace faith appears to exist among Christians, gaps remain in our theoretical understanding of work-faith integration and its implications for organizations. Social scientific scholarship in religion provides a rich seedbed in which workplace faith research can take root.

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